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Challenges for Teaching Dyslexic Students in Middle Schools
Case Study of Middle Schools in Tiaret Town and Tounina

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Dedication

I dedicate this work to my lovely parents Mohammed & Keltoum who have provided me with their encouragement, love and understanding. To my brothers Mostafa , Khalil ,Khaled and Bilal for their whole- hearted support . To my dear sisters Chaimaa, Malika , Mokhtaria and Chourouk . To my little child Mohammed Il yas. To little ones Wattine, Assil, Iline and Aymen. To Those rare, beautiful friendships that change our lives forever Aya, Hayat, Yassemine, Saida and Khansa . To my research partner Sebah Ferial Aya Sonia Thank You. To all who were there for me, thank you for your help and encouragement.

SAFOU Khadidja

Dedication

I dedicate this success to myself first, then to everyone who has supported me throughout this journey, to those who stood by me, provided support, and encouraged me. And to those whose prayers were the secret of my success. I dedicate this work to the one who supported me without limits and gave me without expecting anything in return, the first supporter in my journey. My dear father Ahmed, may Allah prolong his life. To the source of safety from which I draw strength, the one whose prayer surrounded me, my dear mother Fatima, I hope that I can make them proud of me. To my beautiful sisters Ahlem, Linda, Amel, Rawane, and Nabila, thank you to Allah for being in my life. Your presence in my life is very important, as are those of my brothers Malik and Nadjib. To my little chicks: Sirine, Sarah, Sabrine, Zakaria, and my dear child Abderahmane Karim. To my research partner Safou khadidja thank you for everything. To my dear friends Khadidja, Yasmine, ikram, Saidaa, Hayat, Khansaa and Zakaria you are the best thank you for your unwavering friendship and support and for being a constant source of laughter and joy in my life. To the person who stood by my side and supported me in all the difficult and sweet moments, Abderahmane, I want to express my deep thanks and gratitude for everything you did for me.

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Abstract

Dyslexia is a specific learning disability that is neurobiological in origin ,it is characterised by difficulties with accurate and / or fluent word recognition and by poor spelling and decoding abilities .The objective of this research is to advance our understanding of the challenges that teachers in middle schools face while teaching dyslexic students, and also the difficulties are dyslexic learners face .To reach the objectives, a mixed method was employed comprising two major data collection tools and also an observation was taken to gain deep insights into this issue . A questionnaire has been administered to 10 English teachers in middle schools to elicit their insightful views regarding dyslexia and the challenges they face. A semi-structured interview has also been conducted with 6 speech therapists to gain further perspectives on the most difficulties dyslexic student face. An observation has been also taken in therapy centre during a session of treatment with dyslexic students. The findings suggest that teachers in middle schools are unfamiliar with the term dyslexia and they do not know how to deal with it, while, the speech therapists find that multisensory techniques is the best way to solve the problem a dyslexic students have in reading, writing and spelling. It is recommended that teachers in middle schools should be knowledgeable about dyslexia and equipped with effective strategies to support students with learning differences.

Keywords: Dyslexic students, learning disability, multisensory techniques, middle school, speech therapy.

List of Tables

Table 1: Years of Teacher's Experience in the Middle School.....	29
Table 2: Challenges that Face Students in Decoding and Recognizing Words.....	34
Table 3: Teachers' Opinions about Support Classes.....	35
Table 4: Challenges Observed During a Treatment with Dyslexic Students.....	57

List of Figures

Figure 1: International dyslexia association Dyslexia Definitions 1994.....	6
Figure 2: International dyslexia association Dyslexia Definitions.....	7
Figure 3: Demystifying Dyslexia.....	10
Figure 4: Vision and Dyslexia Family Eye Care Solution.....	11
Figure 5: Years of Experience in Middle School.....	30
Figure 6: Students Interested in Reading.....	30
Figure7: Performance of the Students in Reading.....	31
Figure8: Recognizing the Obstacles Faced by Students.....	31
Figure 9: Level of Familiarity that Teachers Have with Dyslexia.....	32
Figure 10: Existence of Dyslexic Students in Classes.....	32
Figure 11: Work of Teachers with the Dyslexic Students.....	33
Figure 12: Methods for Evaluating Student’s Progress in the Classroom.....	34
Figure 13: Common Difficulties in Decoding and Recognizing Words.....	35

List of Acronyms

UK: United Kingdom.

IQ: Intelligence Quotient.

IDA: International Dyslexia Association.

NICHD: National Institute of Child Health and Human Development.

Table of Contents

Dedication	I
Acknowledgments.....	III
Abstract	IV
List of Tables.....	V
List of Figures	VI
List of Acronyms	VII
General Introduction	1
 Chapter One : General Overview of Dyslexia in Middle School	
1.1 Introduction:.....	3
1.2 The Emergence of the Term Dyslexia	3
1.3 Definition of Dyslexia.....	4
1.4 Types of Dyslexia	8
1.4.1 Phonological Dyslexia.....	8
1.4.2 Visual Dyslexia	10
1.4.3 Attentional Dyslexia.....	11
1.4.4 Neglect Dyslexia	12
1.4.5 Rapid Naming Dyslexia	12
1.4.6 Double Deficit Dyslexia.....	13
1.5 Challenges Faced by Dyslexic Children	13
1.5.1 Reading Difficulties	13
1.5.2 Poor Spelling and Writing Skills.....	14
1.5.3 Phonological Awareness	15
1.5.4 Working Memory Challenges	15
1.5.5 Self-Esteem and Motivation.....	16
1.6 The Causal Factors of Dyslexia	16
1.6.1 Genetics Factors	17
1.6.2 Neurological Differences	17
1.6.3 Phonological Processing	17
1.6.4 Environmental Factors	18
1.7 Teaching and Classroom Strategies	18

1.7.1 Teaching Strategies	18
1.7.2 Classroom Strategies	20
Conclusion	22
 Chapter Two: Field Work and Data Analysis	 24
2.1 Introduction	24
2.2 Research Design and Methodology	24
2.3 Sampling and Participants.....	25
2.4 Data Collection Methods	25
2.4.1 Questionnaire to Middle School Teachers	25
2.4.2 Interviews with Speech Therapists.....	26
2.4.3 Observation	28
2.5 Data Analysis	28
2.5.1 Quantitative Data Analysis.....	29
2.5.2 Qualitative Data Analysis.....	35
Conclusion	36
 Chapter Three: Interpretation of the Results and Recommendations	
3.1 Introduction.....	38
3.2 Interpretations of the Results	38
3.2.1 The Questionnaire Results Interpretation with Teachers	38
3.2.2 Interpretation of Interview Results.....	40
3.2.3 Interpretation of the Observation	44
3.3 Recommendations.....	45
3.3.1 Recommendation for Teachers in Middle School.....	45
3.3.2 Recommendation for Parents	45
3.3.3 Recommendation of Ministry of Education	46
3.4 Limitation of the Study	46
Conclusion	47
 General Conclusion.....	 48
List of References	50
Appendices	53

الملخص.....	58
Le Résumé.....	59

General Introduction

General Introduction

Teaching learners with specific needs excellent reading environment to help them meet their ability and conquer self-confidence and behavioral issues like children with autism, dysgraphia and dyslexia .Dyslexia which includes difficulties in the acquisition of reading in particular, spelling and writing is the most common of the learning disabilities(Beaton,2004).Dyslexia is a neurological disorder that usually Impacts people of average or superior intelligence, dyslexic individuals have an impaired ability to recognize and process words and letters ,it usually shows itself in the tending to read ,write words and letters in reversed order, sometimes similar reversals occur in the person's speech, it is commonly diagnosed in children during their middle school phase, those with dyslexia may encounter challenges in deciphering and comprehending written words and may struggle with comprehension and fluency. Therefore, the current research aims to gain a better understanding of dyslexia and to know the challenges that face dyslexic students in middle school. The main problem taken up in the present research paper can be formulated in the following question:

- 1- What are the challenges faced by dyslexic students in middle schools?
- 2- What are the strategies that can help students in classroom?
- 2- What difficulties do teachers in middle schools face in teaching dyslexics learners?

The following hypotheses are tentative answers for above research questions:

- 1- Students with dyslexia have many problems in reading, spelling and writing compared to other children their age.
- 2- They can use multisensory techniques to recognize letters and words by their fingers while saying them.
- 3- Teachers in middle school face difficulties with this category as they find it difficult to understand, and deal with them and integrate them with their colleagues of the same age.

The present study opts for a mixed method that combines both qualitative and quantitative approaches for the collection of data .the research tools consist of a questionnaire, .interview and observation. The data was collected from both English teachers in middle school and speech therapists, the interview conducted with seven speech therapists in clinics and the questionnaire was submitted to ten teachers in middle schools, the observation was

scheduled with a dyslexic child, and the population of this study is the students in middle schools.

This research work consists of three chapters ,the first one provides a theoretical review of the phenomenon of dyslexia and includes the definitions of the concept of dyslexia, its types and the challenges that are faced by dyslexic students in middle school, and details about the causal factors of dyslexia. In the end teaching and classroom strategies are suggested to help dyslexic students .The second chapter is concerned with the practical study it represents a description of participants, research methods and data collection tools. The third and the last chapter taken up the interpretation of the findings from the previous chapter, which includes the field work and data analysis and it includes recommendations based on the interpreted findings.

Chapter One

General Overview of Dyslexia in Middle School

1.1 Introduction:

Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and fluent word recognition and by poor spelling and decoding abilities. The aim of this study is to gain a better understanding of dyslexia and know the teaching challenges that face dyslexic students in the Algerian middle school. This chapter presents a general overview of dyslexia, describes the types and challenges that face dyslexic learners and examine the causal factors and the strategies that help dyslexics to manage this phenomenon.

1.2 The Emergence of the Term Dyslexia

Oswald Berkman discovered the problem in 1881, while Adolph Kussmaul, a German-British physician, created the term "word blindness" in 1877 to refer to people who have normal vision and understanding but lose their capacity to read basic words while speaking correctly. Six years later, in 1883, another conducted by German physician and ophthalmologist Rudolph Berlin developed the term dyslexia instead of the word blindness. In the UK, several researchers were working on the topic with many doctors, including James Kerr, William Pringle Morgan, and James Hinshelwood. In 1896, William Pringle Morgan published a report titled "Congenital Word Blindness" in the British journal *Lancet*. In his report he talked about an intelligent boy who struggles with learning to read words he wrote in his description:

Percy F. – a well-grown lad, aged 14 – is the eldest son of intelligent parents, the second child of a family of seven. He has always been a bright and intelligent boy, quick at games, and in no way inferior to others of his age ... His great difficulty has been – and still is – his inability to learn to read. This inability is so remarkable, and so pronounced, that I have no doubt it is due to some congenital defect ... He has been at school or under tutors since he was 7 years old, and the greatest efforts have been made to teach him to read, but, in spite of this laborious and persistent training, he can only with difficulty spell out words of one syllable...The schoolmaster who has taught him for some years says that he would be the smartest lad in the school if the instruction were entirely oral...His father informs me that the greatest difficulty was found in teaching the boy his letters, and they thought he never would learn them. (Morgan, 1896, p1378 cited in Beaton, 2004, p.03)

At the start of the 20th century, James Hinshelwood, a different British ophthalmologist, published a report on congenital word blindness that described two boys, aged 10 and 11

years old. He described reading difficulties as primarily caused by a deficit in visual memory for letters and words, along with issues with spelling, reading, and comprehension. According to the history of dyslexia (n.d), Samuel T. Orton, in 1925, was also among the pioneering researchers to support phonics training for dyslexic individuals, citing the works of Kussmaul, Morgan, and Hinshelwood. The non-visual components of Orton's thesis emerged from the observations of people who struggle with reading. Neurologist Critchley and psychologist Tim Miles (1962) opened the centre of the word blindness. Many researchers worked with individuals who were dyslexic. In 1970, Critchley posted his sympathetic account, *The Dyslexic Child*, which diagnosed developmental dyslexia as a trouble requiring respectable attention.

Several dyslexia-focused organizations were established. These consisted of the Helen Arkell Dyslexia Centre (1971), the Dyslexia Clinic at Barts Hospital (1971), the British Dyslexia Association (1972), the Dyslexia Institute (1972), the Language Development Unit at Aston University (1973), and the Bangor Dyslexia Unit (1977), among other things. A variety of organizations remain active today, offering assistance to people and children with dyslexia, as well as professionals in the field of dyslexia.

1.3 Definition of Dyslexia

The subject of learning difficulties is one of the topics that has occupied the attention of researchers and scientists in the field of psychology in general and educational psychology and mental health in particular, especially after the emergence of the term dyslexia. Dyslexia has been a topic of discussion for many years. So, various interpretations appeared, including the World Federation of Neurology 1968 that defined as follows:

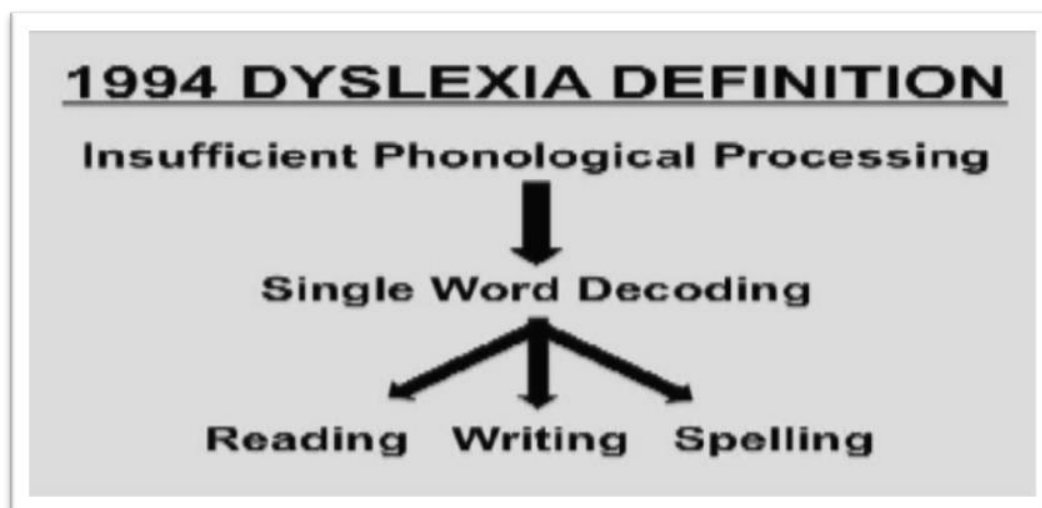
“A disorder manifested by difficulties in learning to read despite conventional instruction, adequate intelligence, and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities, which are frequently of constitutional origin.”

This circumstance, highlights the demanding situations people with dyslexia face in analysing in spite of receiving general teaching, having regular intelligence, and being in an appropriate socio, cultural, environment. Dyslexia impacts phrase recognition, spelling, and interpreting because of phonological processing deficits, regularly main to problems in analyzing comprehension and decreased analyzing experience. It is not always associated with popular developmental disabilities or sensory impairments. Dyslexia is particular language primarily based totally sickness that may affect diverse existence abilities past analyzing, including writing and arithmetic

Critics have denounced this definition as an “exclusionary definition “ (Rutter,1978) as it shows that pioneers who are disadvantages or have low intelligence quotient can be excluded from being identified with dyslexia .despite this criticism ,the definition has been used as a criterion for choosing subjects, mainly in medical orientated studies context ,this serve the motive of heading off comorbid conditions, However in scientific practice the outcomes were greater contentions .

According to Tomson1990, dyslexia is a serve difficulty in written language that is not due to the cultural or emotional reasons, and is defined by the development of reading, writing and spelling skills that are less advanced than would be predicted given the child’s age and IQ .it is a cognitive condition that impacts the following language abilities: short-term memory ,visual-verbal symbols , perceptual and sequential systems , and written language skills .

Another definition emerged at a meeting organized by The International Dyslexia Association (IDA) in New York City in April 1994 included (Reid Lyon, Jack Fletcher, Sally and Bennett Shaywitz,and Emerson Dickman) , the definition crafted at the point become accredited via way of means of the research committee of IDA and followed to be used in studies via way of means of The National Institute of Child Health and Human Development of the National Institutes of Health (NICHD). As it is represented with inside the picture bellow insufficient phonological processing results in difficulty with single phrase interpreting that in turn triggered problems in reading, writing, and spelling.

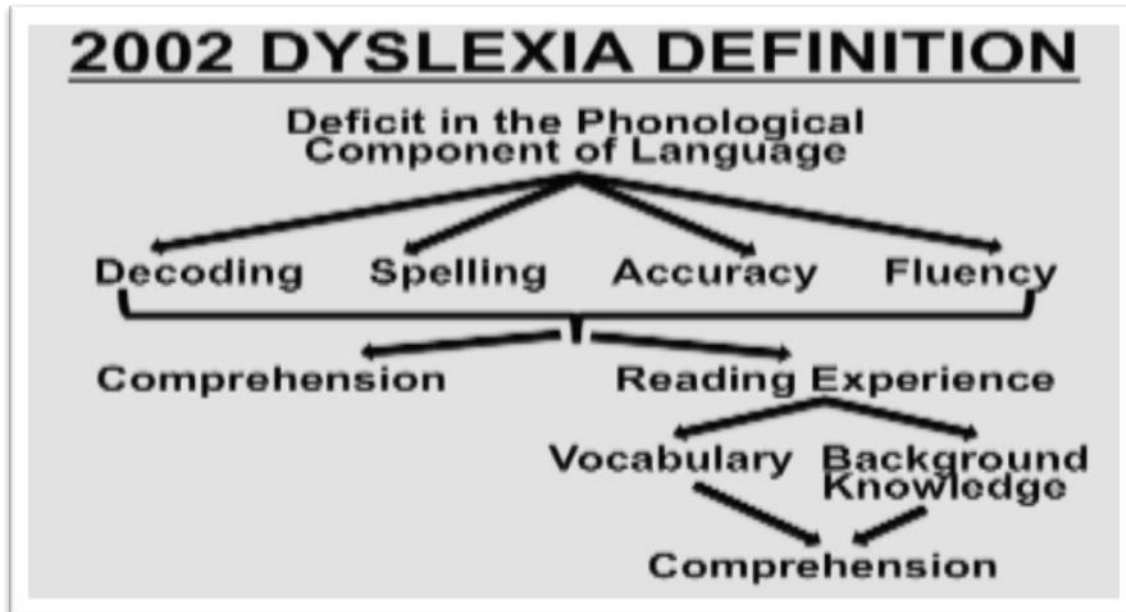
Figure 1: IDA's Dyslexia Definitions 1994

Source: <https://dyslexiaida.org/do-we-need-a-new-definition-of-dyslexia/>

In November 12, 2002 the IDA (International Dyslexia Association) modified the definition of dyslexia and become as follows:

“Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and / or fluent word recognition and poor spelling and decoding abilities ,these difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction .Secondary, consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.”

In other words it is a learning disability that influences reading and spelling, people with dyslexia have trouble recognizing words and may find it difficult to spell or recognize what they read. It takes place due to how their brain works, sometimes it could be sudden due to the fact they will be good at different things, it is important for them to get the right help in school.

Figure 2: IDA's Dyslexia Definitions 2002

Source: <https://dyslexiaida.org/do-we-need-a-new-definition-of-dyslexia/>

(Mayo Clinic) describes dyslexia in similar way, “Dyslexia is a learning disorder that involves difficulty reading due to problems identifying speech sounds and learning how they relate to letters and words (decoding) .Also called a reading disability dyslexia is a result of individual differences in areas of the brain that process language.”

This means that dyslexia is a typical learning problem that makes it provoking for people to peruse, notwithstanding having ordinary vision and knowledge. It is much of the time not recognized in kids until some other time in life in light of the fact that the side effects can be unobtrusive and may not be quickly evident. Accordingly, a few people may not get the fundamental help and facilities for their perusing challenges until adult hood. This deferred acknowledgment can prompt scholar and expert difficulties for people with dyslexia, Dr. Sally Shaywitz dyslexia guru and the author of *Overcoming Dyslexia* defined this phenomenon as :“ Unexpected difficulty with reading .”

Shaywitz makes use of the term ‘unexpected difficulty with reading’, to emphasize that people with dyslexia frequently warfare with analysing in spite of having common or above common intelligence and receiving suitable preparation in different words ,their problems with analysing are not in step with their general cognitive capabilities and the excellent of preparation they have received .This surprising nature of the problem is a key feature of dyslexia and highlights the unique nature of studying disability .It underscores the truth that dyslexia is not always definitely an end result of loss of attempt or intelligence ,However as a

substitute a neurobiological situation that calls for centred interventions and support .Due to the various definitions of the term dyslexia , The British Dyslexia Association has adopted Sir **Rose definition 2009** , he defined it as follow :“ Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling . Characteristics features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed .Dyslexia occurs across the range of intellectual abilities. It is best thought of as a continuum ,not a distinct category ,and there are no clear cut-off points .co-occurring difficulties may be seen in aspects of language ,motor co-ordination ,mental calculation concentration and personal organisation, but these are not ,by themselves , markers of dyslexia .A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds, Sir Rose most likely intended to convey the idea that dyslexia is a multifaceted ,diverse learning disability that affects people in different ways , it is a continuum of difficulties with reading and spelling rather than a distinct category with set markers . he also stressed the value of early intervention and support for dyslexic in order to help them develop their abilities and get through their challenges .has responded to well – founded intervention.

1.4 Types of Dyslexia

There are different subtypes of Dyslexia including phonological, visual, attentional, neglect, rapid naming and double deficit dyslexia.

1.4.1 Phonological Dyslexia

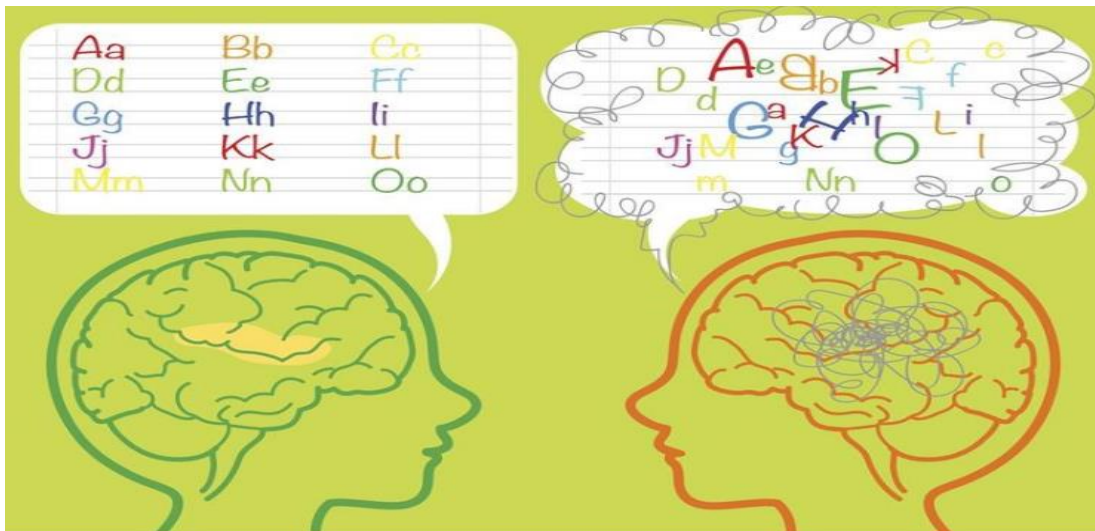
Phonological dyslexia, also known as dyphonetic dyslexia, is a kind of dyslexia defined by difficulties decoding and understanding words based on phonetic sounds. Neuropsychologists use the phrase to describe how people with phonological dyslexia may struggle to understand the relationship between letters and sounds, affecting their reading and spelling abilities. Children with phonological dyslexia struggle with comprehending new words because they can only read words that have previously been stored in their orthographics. This can be especially difficult for learners with a diagnosis of dyslexia, as every word seems like a new word to them, making it impossible to read through established word routes. For example, individuals who do not hear the "n" in "strand" might find it difficult to spell words correctly. Individuals with this kind of phonological letter-to-phoneme conversion, or phonological dyslexia, fail to sound out single words.

According to Bates, “phonological dyslexics tapping brain regions are less efficient at processing phonemes and recognizing words by sight when compared to efficient readers (Vliet et al., 2004:583; Bates, 2013:1). This quotation by Bates emphasizes the fact that those with phonological dyslexia may rely on distinct brain regions than skilled readers when processing language sounds. Their failure to understand words and sounds can lead to their reading difficulties. Therefore, when phonological dyslexics evaluate the sounds of language and seek out words by sight, their brain regions work less than those of skilled readers, making it difficult for them to understand written language. This can result in reduced reading speed and comprehension problems.

The causes of this difficulty are believed to stem from differences in brain regions which are less efficient at progressing phonemes and recognise words by sight when compared to efficient readers. (Bates, 2013:1; Vliet, Miozzo, and Stern, 2004:583) means that the problems learners with phonological dyslexia face in recognizing between actual words and other words are due to their difficulty understanding words with individual letters. The challenge of finding the sounds of specific letters may impact the learner capacity to be able to determine.

Phonological dyslexia is the most common category of dyslexia. There are many obstacles to phonological dyslexia that could affect reading and spelling skills which is:

- The difficulty of identifying distinct voices in words
- It's impossible to tell the difference between similar voices.
- It can be hard for multiple voices for creating words.
- Challenges comprehending orthographic texts.
- Trouble with spelling words.

Figure 3: Demystifying Dyslexia

Source: <https://www.veanea.org/demystifying-dyslexia> (2022)

The following picture shows how learners with dyslexia translate spoken words into written letters in their minds. While typical students have little trouble manipulating letters and words, dyslexic learners struggle severely with establishing the connection between what they hear and what they write.

1.4.2 Visual Dyslexia

Visual dyslexia, also known as sensory processing disorder or orthographic dyslexia, is a version of dyslexia that affects learners who have reading trouble. If a child has visual dyslexia, he can sound out words, but he struggles with words that fail to come out regularly and must be acquired mostly by sight. He reads slowly and uses words phonetically. For example, reading the word “read” as a “road” or “ words” as “worse”. First outlined in Marshall and Newcombe's 1973 study, it includes impairment in the orthographic visual analysis stage, which causes the confusion of visually similar words and leads to issues with letter substitution and migration.

Ellis and Young (1996) propose that there is a deficiency in the visual analysis system, particularly in the field of letter identification that could be the cause of visual dyslexia, or “a problem internal to the visual input lexicon, whereby the correct input in terms of positionally coded letters sometimes triggers the wrong representation’(p. 202), it means that a problem with the visual input lexicon shows those who have visual dyslexia have trouble recognizing and interpreting words because of specific issues with the lexicon. This means that mistakes in reading or recognizing words can occur when an appropriate arrangement of letters leads the visual input processing system to show the incorrect representation or word.

The dyslexic learners complain of visual problems when trying to read letters they appear to blur, move around, and go double, so children cannot see them properly, which often gives them eyestrain and headaches. Obviously, such symptoms interfere with learning to read (p. 268). It refers to making it hard for them to read the letters clearly; it makes it hard for them to understand and recognize words.

The problems are in reading and writing because when children try to read and write, the words seem to float. There are many symptoms of visual dyslexia, including:

- Headaches and eyestrain associated with reading
- Text appearing blurred or going in and out of focus
- Difficulty keeping place in text
- Difficulty tracking across lines of text
- Omission, addition and substitution

Figure 4: Vision and Dyslexia Family Eye Care Solution



Source:<https://familyeyecaresolutions.com/wp-content/uploads/dyslexia-words-move-around.jpg>

This figure demonstrates how dyslexic students see the words and the letters it is a big problem for them to read it.

1.4.3 Attentional Dyslexia

Attentional dyslexia is one particular form of dyslexia, analysing issues characterized by a reading deficit in which letters migrate between neighboring words, for instance, the fig tree as fig-free, According to Shallice and Warrington (1977), they have been the first to document a form of received dyslexia that results from a deficit in selective attention, which later became known as attentional dyslexia. shallice and Warrington highlighted the importance of

attentional methods in studying how disruptions in hobbies can cause specific studying impairments in human beings with mental injuries. These kinds have an extensive list of symptoms:

- Errors such as elbowing and intrusion
- Lettermigrate from a word that was seen recently and disappeared

1.4.4 Neglect Dyslexia

Neglect is a specific type of dyslexia. It is a form of acquired dyslexia in which patients commit consistently lateralized letter omission, addition, and/or substitution errors when reading individual words (Caramazza and Hillis, 1990a, Ellis et al., 1987, Ellis and Young, 2013, Jackson and Coltheart, 2013, Moore and Demeyere, 2017, Vallar et al., 2010). That is a neuropsychological syndrome whereby those who analyse person words frequently commit lateralized omission, addition, and substitution errors.

As people with neglect dyslexia read, certain of the aspects that fall under the controless side of words, phrases, and lines of text may cause confusion for them. Those who ignore their dyslexia fail to focus on the right side of their brain, make errors while reading words and letters, and add or remove words. These mistakes are more than simple deletions ,but typical for examples :a patient with left neglect dyslexia read” impartial” as” paratial” ,” smart” as “outsmart”or “tested” as “bested” while patient with right neglect dyslexia might read the same words as” impart” ,” smartly” and “testing”(vallar et al,2010).

There are a many symptoms of neglect dyslexia which are:

- Difficulty reading words on the left –hand side.
- Omitting sentences and words.

1.4.5 Rapid Naming Dyslexia

Learners with "rapid naming dyslexia" are dyslexics who have trouble naming letters, numbers, colours, or other distinctive characteristics. Individual processing speeds may be connected to this type of dyslexia. It takes time to learn for individuals with this kind of dyslexia to recognize letters and numbers. Slower reading times might come from the person's brain needing slower to process the information.While people with rapid naming dyslexia may recognize letters, numbers, and colours, they may struggle to analyse them and take a lot longer time to respond to you with the correct term. Dyslexia with rapid naming symptoms can also include thefollowing:

- Steep oral response

- Completing homework and writing assignments at a more relaxed pace
- A propensity to alter or omit words
- Making motions rather than speaking
- Reacting slowly to statements

1.4.6 Double Deficit Dyslexia

Double deficit dyslexia refers to a subtype of dyslexia which involves two deficit his type of dyslexia which combines phonological and rapid naming is often recognized as the most severe kind. A person with double deficit dyslexia struggles in two distinct domains of reading. These two skills frequently entail word sound detection and naming speed. Although being relatively uncommon, the double deficit hypothesis is predicated on the idea that a combination of these two types of deficiencies may be the source of word reading difficulties linked to dyslexia. Bowers and Wolf (1999) "Double deficit learners have trouble with phonological processing and rapid naming, two reading-related issues" According to Wolf and Bowers, learners who have double deficit dyslexia struggle with phonological processing and rapid naming, which are reading-related issues. Symptoms of double deficit dyslexia include:

- Poor phonological awareness
- Slow naming when asked to remember words

1.5 Challenges Faced by Dyslexic Children

Dyslexia can affect most aspects of study in middle education, and it is likely that students with dyslexia will encounter a number of the following challenges to learning.

1.5.1 Reading Difficulties

Reading is a basic life skill. Nonetheless 20 % of people suffer with dyslexia, and over 7% of learners have a reading impairment. Reading difficulties can arise for people in a variety of ways. Some people have trouble decoding, or converting letters into sounds that combine to create formations. A lot of people have trouble understanding what they are reading.

This Numerous factors influence learners reading ability, medical issues, psychological issues, environmental issues, socioeconomic background, parental education, learning motivation, exposure to traditional schooling, disability and related conditions are few examples of these factors. learner's reading abilities may be impacted by their financial situation , mental instability , physical limitations and social pressure at home and at school ,

among other factors (Pigada& Schnitt , 2009) .According to other study the majority of reading challenges are innate and self –initiated (Hosp& Reschly , 2003) ,While the child’s surroundings at home , school and other regular situations play a major role in their aetiology, they are also the outcome of identified predisposing conditions within the learner .the capacity to comprehend the meaning that is expressed through reading .

Inappropriate supervision or a lack of suitable instruction for reading abilities at the appropriate time can occasionally be the cause of reading difficulties. As a result , learners will not be able to learn the abilities needed to become proficient readers m they also came to the conclusion that reading impairments come in a range of severity over time , early detection m fast adjustments and remediation will improve learners reading abilities

1.5.2 Poor Spelling and Writing Skills

Spelling problems are among dyslexia’s most prevalent symptoms. Numerous factors can contribute to this, such as issues with word decoding, inadequate vocabulary, and issues with phonemic awareness. Dyslexics frequently spell words incorrectly because their mental pronunciation of the words differs from their written spelling. Additionally, they could struggle to separate words into their constituent syllables, which can lead to issues with plurals and endings. This is why spelling teaching needs to start as early as possible in a child’s school. Dyslexics with writing difficulties might present a variety of obstacles; writing encompasses both the act of writing and the final output. Planning, organizing, writing, rewriting, and editing are all steps in the writing process that are done with a specific audience and goal in mind. The finished output of the writing process is the written product. Both of these writing components have writing challenges. Dyslexic learners often struggle with these five points:

- **Grammar and Syntax** Most learners can absorb and understand grammar principles by reading, but due to the fact that dyslexics have trouble reading, they frequently find it impossible to do so. As a result, their work will probably contain grammatical errors, like out-of-order phrases, verbs without the proper ends (ing-ed) and pronouns that are absent. Punctuation is either improper or absent; proper nouns and the first letter of a sentence are frequently not capitalized by dyslexic learners. Since commas and periods are frequently omitted, sentences may appear to run together.
- **Handwriting:** People with dyslexia frequently have handwriting that is difficult to read. It was previously believed that problems with handwriting were caused by weak motor control, but misspelling could also be the problem. People hesitate to write when they are unsure of

what letter to write next, which results in less fluid writing and messy handwriting. This person frequently requires a great deal of time to compose letters and phrases and complete writing assignments.

- **Sentence Structure:** Learners with dyslexia may write a chapter in only a few long sentences due to a lack of appropriate sentences out of order. For instance, instead of subject +verb +object (she loves cookies),, a sentence could be written as subject + object +verb (she cookies loves).
- **Poor Organization:** Dyslexics may struggle with executive function. This indicates that they struggle to create a writing plan. Their writing will probably be jumbled, and their concepts may not be completely formed. Their writing may be out of order or jump suddenly from one topic to the next.
- **Lack of Diverse Vocabulary:** Learners with dyslexia typically have a limited vocabulary. They have trouble understanding what they read because they have reading comprehension issues. Their inability to acquire a strong vocabulary shows in the quality of their writing. Additionally, they are less likely to concentrate on employing a range of terms or a more complex vocabulary because writing and composing the final output takes so much time and work.

1.5.3 Phonological Awareness

The ability to recognize phonemes is essential for both spelling and reading. A child who is able to distinguish between words typically makes an effort to read and spell them correctly. Impaired phonological awareness or having trouble connecting sounds to the letter symbols they represent is a common feature of dyslexia. As an illustration:

Manipulating sounds: read this letters aloud c - a - t. And then close your eyes, Can you recall the initialsounds? Without the initial sound, a person with poor phonological abilities would find it difficult to recall the order of sound in their heads and then be able to alter it, which would make them struggle with this activities

1.5.4 Working Memory Challenges

In cognitive psychology and cognitive neuroscience, working memory (Baddeley& Hitch, 1974) is a key idea; it relates to the “central systems“ and procedures that oversee , preserve, and work with data in order to facilitate human thought. Working memory is a restricted capacity system that allows a small amount of data to be kept “active” and used for operations for a short time. For instance, we can mentally assess several routes to a location

and choose the shortest one, or we can practice a phone number until we actually dial it. Specifically, working memory enables the temporary maintenance of task-related information while performing complex cognitive tasks that call for willingness, awareness, and attention, like planning, reasoning, language manipulation, executive control, and the synchronization of perception and action in complex cognitive operations. Learners with dyslexia often have problems with working memory; the order in which instructions, new vocabulary words, and even names are presented aloud is difficult for them to recall. They struggle to repeat new or unfamiliar verbal information due to their poor verbal communication working memory they may feel embarrassed to repeat facts in front of other people as a result

1.5.5 Self-Esteem and Motivation

Is a person's opinion and perception of themselves; this self-perception is contingent upon an individual's personality type. Personal strengths and weaknesses, and the actions they are performing, can be either positive or negative, or even a combination of both. Learners with dyslexia frequently suffer from poor self-esteem. Their past hardships, dissatisfaction, and loneliness are typically the causes of their low self-esteem. In addition to difficulties at school, children with dyslexia may face peer pressure and derision from adults who lack comprehension of the condition. When these challenges occur, a dyslexic child's self-esteem starts to erode because they begin to think that their troubles are the result of their inadequacies and lack of intelligence. This typically happens to dyslexic learners who have not had their dyslexia officially diagnosed and who have not benefited from tutoring or dyslexia treatment programmers. This decline in self-esteem is frequently prevented if a child's dyslexia is detected early and they receive the necessary dyslexia assistance. In this scenario, the dyslexic learners will have made such progress and developed such a solid grasp of their dyslexia through their dyslexia to tutoring that they will continue to have faith in their own potential to achieve.

1.6 The Causal Factors of Dyslexia

Dyslexia is complex and often misunderstood learning disability that affects people's ability to read, write and spell. Although the exact cause of dyslexia is still unclear, researchers have identified several factors that may contribute to the cause of this condition as following.

1.6.1 Genetics Factors

Dyslexia is a challenging condition that learners have to overcome in both speech and writing, and many research studies indicate that there are many causes for the difficulty in reading that dyslexia presents. (Ramus, 2001; Temple, 2002; 2003) Although the exact reason has not been identified yet, scientists think genetic factors are responsible for it. A neurological condition that occurs in families is dyslexia. This implies that the neurological system, especially the areas of the brain connected to learning to read, may be affected by this disorder, which an individual may inherit from a parent. Numerous inherited genes may predispose someone to acquire dyslexia, according to research on the genetic component of the brain illness.

1.6.2 Neurological Differences

Neurological brain differences are the explanation for dyslexia, as learners with dyslexia have a larger right hemisphere and higher levels of activity in this area of the brain than learners without the disorder. It is well known that dyslexic learners perform in a variety of domains that are controlled by the right side of the brain, including music, art, sports, and many more. However, it is well known that the left side of the brain performs language processes most quickly. Dyslexia, which is caused by physiological and functional variations in the brain, is a consequence of these differences. The belief that dyslexia might also additionally have a neurological starting place was to begin with and independently noted on the flip of the remaining century through the Scottish ophthalmologist James Hinshelwood and the British medical doctor Pringle Morgan, who each emphasized the similarity of positive signs and symptoms in dyslexic adults with the neurological syndrome of visible word blindness (Hinshelwood, 1895;Morgan,1896) .

1.6.3 Phonological Processing

Is the capacity to modify and analyse language phonemes or sounds It is a crucial ability for learning to read and write since it enables us to separate words into their component sounds and then combine these sounds to create new words (Wagner &Torgesen, 1987). Dyslexic faced problems with separate different sounds within words, which can make it difficult to decode and sound out words while reading.

1.6.4 Environmental Factors

It means that a learner with dyslexia may acquire it over time because he was unable to adjust to his new surroundings. (Dereborn) notes that the learner inability to write with his preferred hand in one hand is the reason for his reading difficulties. Pressuring him to use one of his preferred hands instead of the other results in reading problems and writing being only a matter of letters being reversed or replaced (Poule). It is believed that a dyslexic learner's success in reading skills is based on what he perceives to be a healthy family environment. Learners from tense homes surely learn to read in a state of tension, anxiety, and mental instability, which has a special impact on reading comprehension, unlike kids who are raised in a secure confinement setting (Mussen, 1973). In two distinct investigations, Harris and George came to the conclusion that a dyslexic learner emotional adjustment to the cumulative experience of this repeated failure to live up to expectations from others around him causes feelings of fear low and self-esteem, which in turn causes reading difficulties.

1.7 Teaching and Classroom Strategies

Dyslexic students often encounter problems at school that can affect their learning and overall well-being. There are a variety of teaching strategies and accommodations that can help students with dyslexia overcome problems in school and improve their learning; some of these strategies are:

1.7.1 Teaching Strategies

There are several effective teaching strategies that can support dyslexic students in their learning and academic success. A key element of learning for dyslexic learners that teachers with clinical experience use is multisensory teaching Activating two or more senses during the learning process is the objective of this approach to learning. According to the International Dyslexia Association (2001), multisensory teaching is a successful strategy for instructing students with dyslexia. Students frequently use two senses in traditional instruction: hearing and sight, they hear the teacher speaking and they see words as they read. However, many dyslexic kids may experience difficulties with auditory data processing and visual displays additionally, specific, direct, cumulative, exacting, and language structure-focused training works well with dyslexic students. Using visual, auditory, and kinesthetic-tactile pathways at the same time to improve memory and written language acquisition is known as multisensory learning. Teachers who use this technique assist college students in understanding the speech sound in words (phonemes) through searching within the reflection

after they communicate or exaggerating the moves in their mouths. Multisensory strategies can be used by teachers in a variety of ways, for examples ask the dyslexic students for help drawing the letter with his finger in the air while they are staring at the letter on a flash card.

Secondly, explicit instruction explicit instruction is a way to teach in a direct, structured way. When teachers use explicit instruction, they make lessons crystal clear. They show kids how to start and succeed at a task. They also give kids plenty of feedback and chances to practice. This kind of intentional teaching approach is perfect for all types of engaged readers, including dyslexic pupils. Everything is specially designed to meet their requirements and support their abilities, from tools and resources to learning experiences and forms of instruction. For students with dyslexia, explicit learning involves creating complete, structured programs. Students gain proficiency in text comprehension and phonemic awareness as a result, making them competent readers. Dyslexic and learning-disabled students may find it difficult to comprehend and follow instructions. Giving clear instructions frequently and in a variety of media, such as orally, in writing, and through example, is one strategy to aid pupils in understanding the instructions and staying on target. Examples: Task Breakdown: To assist dyslexic pupils with organizing and concentrating on one step at a time, task breakdown tools such as timers, calendars, checklists, and visual schedules can be used. This keeps you from becoming overwhelmed by big jobs. Another helpful tactic is to set mini-deadlines for sections of a larger project. When difficult activities are broken down into smaller, more achievable steps, children acquire confidence in completing each one.

Thirdly, be patient and communicate well. Having an open line of communication on teaching and assessment procedures for dyslexic students with both the student and their parents is the best way to support a dyslexic learner. It could take some trial and error to find a learning plan that works for the student, but open communication, kindness, and patience will help put the student on the right path to success and lessen feelings of failure.

Fourthly , Assistive technologies are devices, software, equipment, and other tools designed specifically to help people with disabilities—such as dyslexia—perform tasks, access information, communicate, and interact with others. Assistive technology, or AT, refers to all goods and services that increase the level of autonomy and quality of life for those with disabilities. The challenges of reading and writing can be lessened for those with dyslexia by using assistive technologies to help them learn and function independently. For instance dyslexic people, assistive technology is essential to their daily functioning. The use of assistive technology fosters accessibility and inclusivity for people with dyslexia. Its tools and software aid in bridging the gap between people who have learning disabilities and those

Who don't?

1.7.2 Classroom Strategies

There are many effective classroom strategies that can be implemented to support dyslexic students as follows:

Use colour and visual aids. Particularly for dyslexic learners, a visual thinking technique helps in the organization of ideas, concepts, facts, and thoughts in a way that improves interaction as well as comprehension of information. Examples, Information can be made easier to understand and retain by using visual organizers, charts, and colour coding diagrams.

Working together with parents have regular conversations with the parents of dyslexic students to go over their child's progress and the teaching tactics you have implemented. The child's parents can also provide teachers with an update on the strategies and techniques they've been employing at home. This is essential because, in the end, there is no "one-size-fits-all" solution for dyslexic children; rather, no two are alike. Teachers and the parents can collaborate to identify teaching strategies that successfully support the dyslexic student's learning.

In addition to help dyslexic learners learn more easily, classroom methods can assist them experience less challenges (Benova&Mihaova, 2012,p,50).

Accommodations Involving Materials

In order to make dyslexic learners feel comfortable and accepted in the classroom, teachers should employ instructional resources that can help dyslexics improve their performance (Pavey, 2007, p,29). Hence in the classroom teachers might make use of the following material accommodations:

- **Use a tape recorder :** Dyslexic learners struggle with reading and take long time to comprehend a word, tape recorders with instructions, tapes and targeted courses can aid these learners in understanding the lecture material, (The IDA, 2013, p, 15).
- **Highlight Essential Information with Colour:** Dyslexic learners also struggle to distinguish between colours, so teachers must give them coloured strips or bookmarkers so that when they begin reading, their students can follow along.
- **Provide Additional Practice Activities :** Teachers need to include practice exercises to the curriculum, like educational games, peer education activities, materials for self-correction computer software, and extra worksheets (Canter, 2006,p, 16).

- **Clarify or Simplify Written Directions:** Certain instructions consist of multiple informational pieces and are written in paragraph format. For some learners, these may be too much to handle. The teacher might assist by emphasising or underlining the important passages in the instructions. It is usually beneficial to rewrite the instructions. One set of instructions might state, for instance, this activity will assess your ability to identify conjunctions. Go over each sentence, seek out the conjunctions, locate the conjunction you are looking for by observing through the list located beneath each phrase, next indicate the response number in the answer column by circling it, a more straightforward instruction set would be; read each sentence and mark every conjunction.
- **Present a Small Amount of Work:** If learners are worried about the quantity of work they have to accomplish, the teacher can pull pages from workbooks and other materials to give them little assignments to complete. This method keeps learners from looking through a workbook, text, or other resource in its entirety and getting overwhelmed by the amount of work. The teacher can also cut back on work when it seems unnecessary. For instance, the teacher can give answers to a few items and allow the learners to fill in the remainder, or they can ask the student to only complete problems with odd numbers or objects marked with stars. Finally, a worksheet can be divided into portions by the teacher, who can then assign the students to work on a certain segment. Drawing lines across a worksheet and writing go and stop within each area makes dividing it easy.
- **Block out Extraneous Stimuli:** A blank piece of paper can be utilised to cover portions of a worksheet or page that are not being worked on right now, if a learner gets easily sidetracked by visual cues. Additionally, windows can be utilised to show specific math problems and line markers can be used to help with reading.
- **Develop Reading Guides:** A reading guide gives the learners an outline of the text and includes recurrent questions to assist in keeping the learners' attention on pertinent material. It assists the reader in making sense of the primary concepts and organising the plethora of details that are connected to them. One can create a reading guide section –by-section, page-by-page or paragraph-by-paragraph.
- **Provide a Glossary in Content Area:** The secondary level necessitates attentive reading due to the content categories' distinctive terminology. A dictionary of terminology linked to the material is typically beneficial to students.

Conclusion

To conclude this chapter, it should be clear that middle school students with dyslexia face a variety of difficulties due to this complex learning impairment. In order to give these students the proper support and accommodations , it is imperative that one has thorough understanding of the definition and variations of dyslexia .The challenges encountered by dyslexic students underscore the significance of tackling the underlying causes that may impede their educational journey .In order to support dyslexic students in achieving their academic goals and realising their full potential , it will be crucial to carry out more study and put these treatments into practice .

Chapter Two

Field Work and Data Analysis

2.1 Introduction

Chapter one represents the primary objective of this study, It focuses on giving a thorough explanation of dyslexia, including its definitions, types as well as the challenges in teaching dyslexic students in middle school, Furthermore the chapter additionally appears at both teaching and classroom strategies to gain a better understanding of dyslexia and effectively support dyslexic students in middle schools.

This chapter provides a description of the methodological part of the current research and discusses the sample, the participants, and the data collection methods. The sample of this study includes teachers in middle school , speech therapist and the data collection methods includes questionnaire administered to teachers in middle school and interviews conducted with speech therapists . We use both qualitative and quantitative methods in data analysis, and observation with student in order to observe the challenges that face dyslexic students; there are also ethical considerations in the data collection.

2.2 Research Design and Methodology

The research design and methodology of the study are carefully planned to answer the research questions and hypotheses while ensuring the collection of comprehensive and reliable data. This section provides an overview of the research design and methodology used in this study.

The study was grounded in a mixed-methods approach, combining quantitative and qualitative research methods. This method, which gathers deep insights from participants and statistical trends, allows for a more thorough understanding of dyslexia and the challenges faced by teachers when working with dyslexic students.

The quantitative component of the study involved administering a structured questionnaire to middle school teachers from different provinces. The aim of the questionnaire is to secure responses regarding attitudes, perspectives, and knowledge concerning dyslexia and the way teachers deal with dyslexics.

The qualitative component of the study includes a semi-structured interview with the speech therapist in Tiaret and Tissemsilt to provide insights into how reduce dyslexia and provide the treatment methods to solve this problem.

The observation was schedule in speech therapist center in Tiaret during a treatment session with dyslexic student to get deeper in the difficulties that they faced in their learning.

2.3 Sampling and Participants

The participants in our research consist of 10 teachers of middle school English in different schools in Tiaret and Tounina. The sample size of 10 teachers is considered appropriate since it represents all the teachers at the schools. We also interviewed six orthophonists in Tiaret and Tissemsilt.

We explain the purpose and significance of the study to a teacher in middle schools who answer the questionnaire. The participant's teachers were from the 05 middle school in Tiaret and Tounina.

2.4 Data Collection Methods

To collect data for this study, a questionnaire and a semi-structured interview were the two main methods used. We selected these approaches to get both quantitative and qualitative data and to allow for a thorough analysis of the research questions, as we are interested in finding whether middle school teachers encountered problems in teaching dyslexic students or not .

2.4.1 Questionnaire to Middle School Teachers

The questionnaire involved 12 questions and was distributed to 10 teachers in middle school in Tiaret and Tounina. We used qualitative data. The aim of this questionnaire is to gain a better understanding of dyslexia and the challenges faced by dyslexic students. A research questionnaire is typically composed of both closed-ended and open-ended questions.

Question (1) seeks to know the year of experience of teachers in middle school.

Question (2) attempts to know how many students are interested in participating in reading activities.

Question (3) was designed to determine the level of students reading performance

Question (4) this question aims to identify the difficulties that students face in reading.

Question (5) Attempt to know how many teachers know about dyslexia.

Question (6) Determine the level of familiarity with the concept of dyslexia.

Question (7) seeks to know whether there are students with dyslexia in the class.

Question (8) seeks to inquire about the teacher's experience working with students with dyslexia.

In the second part of the question, the teacher refers the student's with dyslexia to orthophonist schools, or they deal with them.

Question (9) this question aims to provide appropriate support and guidance for this category.

Question (10) Attempt to know and understand the methods that teachers use to monitor and evaluate the level of students in middle school.

Question (11) seeks to know if students in middle school have difficulties decoding and recognizing words.

The second part attempts to see what kind of problems the students have in decoding and recognizing

Question (12) seeks to know if support classes for dyslexic students are to provide targeted instructions to help students improve their reading skills.

2.4.2 Interviews with Speech Therapists

Interviews are used to collect information from a small group of subjects on a wide range of topics.

Accordingly, a specific group of six participants was selected to participate in a semi-structured interview. The aim of this interview was to collect detailed information and gather diverse perspectives and experiences regarding the reading barriers and difficulties that people with dyslexia face in their educational journey. Interviews were conducted either in person or online, depending on participants' availability and choices. An interview guide was created to maintain consistency in the topics covered while also allowing participants to provide open-ended answers.

Throughout the interview, participants were questioned extensively about their personal experiences, beliefs, and perspectives to gain insight into their experiences of dyslexia. Interviews were conducted in an informal manner to elicit spontaneous and unique ideas and perspectives. Data collected from the interviews were analysed using thematic analysis to identify recurring themes and patterns.

Question 1

The aim of this question is to gather information that can help us better understand the speech therapists according to his age stage.

Question 2

The aim of this question is to gather information that is directly relevant to the job.

Question 3

The aim of this question is to understand and interpret the meaning of dyslexia and, its symptoms, how dyslexia affects people. This can help raise and improve awareness and facilitate discussions about dyslexia and how dyslexic can be supported.

Question 4

This question is an evaluation of the speech therapists experience and skill level in working with dyslexic students. The aim of asking this question is to understand the speech therapists background, knowledge and skills in supporting people with dyslexia. This information can be helpful in determining an individual's qualifications, understanding their experience, and assessing their ability to work effectively with this category.

Question 5

The aim of asking this question is to gain insights into the specific challenges and difficulties that speech therapists may face when working with dyslexia.

Question 6

The aim of asking this question is to find out what challenges May dyslexic face in different areas such as reading, writing, spelling, comprehension, processing, time management, and memory.

Question 7

The aim of this question is to find strategies, interventions, and support systems that can make a positive impact on individuals with dyslexia, by exploring ways and solutions to reduce the problems associated with dyslexia, the goal is to improve the quality of life and opportunities of people with dyslexia and create a complete and supportive community for them.

Question 8

The goal in asking this question is to explore the experiences, observations and knowledge of speech therapists that have some experience of dyslexia .The aim is mainly to understand the role of genetics in the development of dyslexia, as research shows that genetics may play an important role in this condition.

Question 9

The aim of asking this question isto investigate the ways that can either teachers or parents do to help reduce this phenomenon.

Question 10

The goal of asking this question is to investigate different methods of treatment and interventions that can be used to solve problems associated with dyslexia. By exploring the various treatment options available, the aim is to identify effective strategies that can help students with dyslexia improve their reading, writing, and overall academic functioning.

Question 11

The aim of this question is to promote awareness of best practices in teaching dyslexic students and encourage the adoption of multisensory techniques to enhance the learning experience and success of individuals with dyslexia.

Question 12

The purpose of asking this question is to understand ways to build effective partnership with parents to support overall student well-being and success. Also aims is to assess students perception of the student movement, research has shown that when parents are actively involved in their children's education, students are more likely to learn m behave better, and have more self-esteem.

Question 13

The aim of this question is to understand the speech therapists experience and knowledge of interventions, strategies, and treatments that have been effective in supporting students with dyslexia. It is important to inquire about specific cases that have been treated for dyslexia to gain insight into the dyslexia and whether it can be treated or not.

2.4.3 Observation

The observation was scheduled with the speech therapists during his session of treatment with a 12 years old dyslexic students at El-Amana clinic, the objective of this observation is to observe the challenges that face dyslexic students in reading and language skills, and how the speech therapists deal with this and give the right techniques to improve students reading.

2.5 Data Analysis

In order to address research questions and validate or reject hypotheses, the data collected from a questionnaire and semi-structured interviews will be analysed using relevant statistical techniques. An overview of the data analysis methods used in this study is given in that scrutiny. The findings and conclusions of the study, including both quantitative analysis

and thematic analysis of qualitative data, will be presented and discussed providing valuable insights into how teachers deal with dyslexic and the challenges this category face.

2.5.1 Quantitative Data Analysis

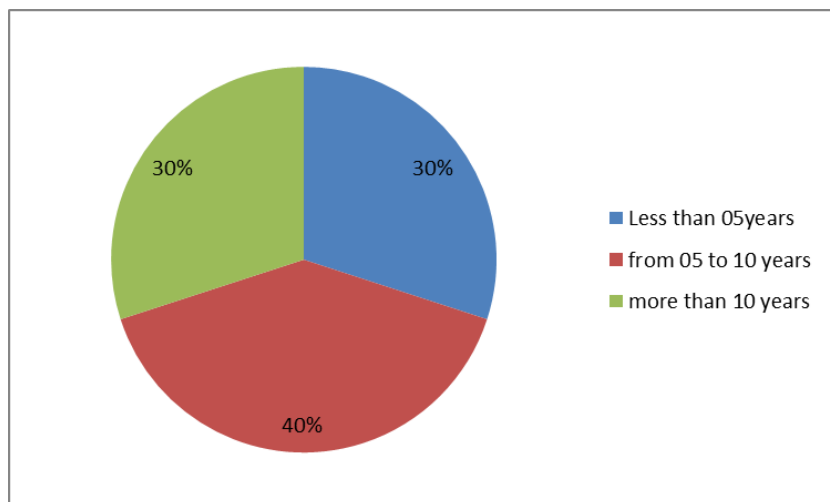
The questionnaire involved 12 questions in general .09 close ended questions and 03 open ended the following tables show this questions.

Question 1: How long have you been teaching in middle school setting?

Table 1: Years of Teacher's Experience in the Middle School

Years of Experience	Number of Teachers	Percentage
Less than 5 years	03	30%
From 5 to 10	04	40%
More than 10 years	03	30%

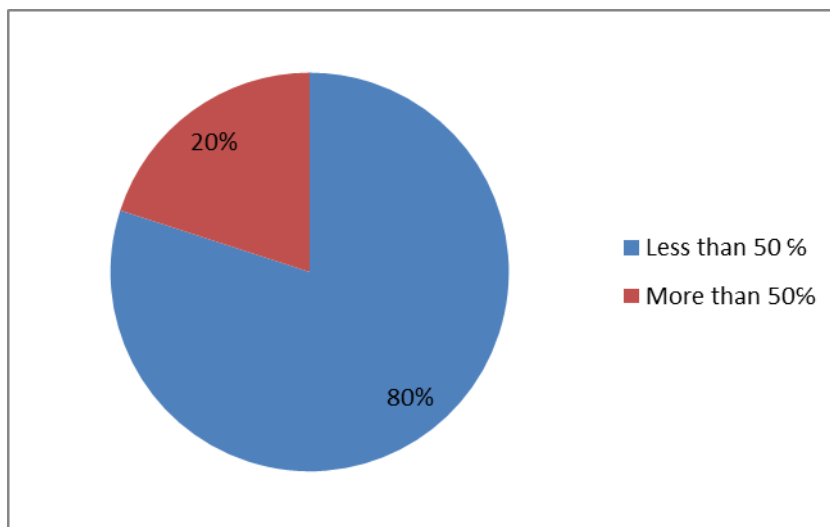
Figure 5: Years of Experience in Middle School



The majority of teachers fall into the category of having 5 to 10 years of experience comprising 40% of the total. Both less than 5 years and more than 10 years have a 30 % of experience.

Question 2: How many students are interested to participate in the reading activity?

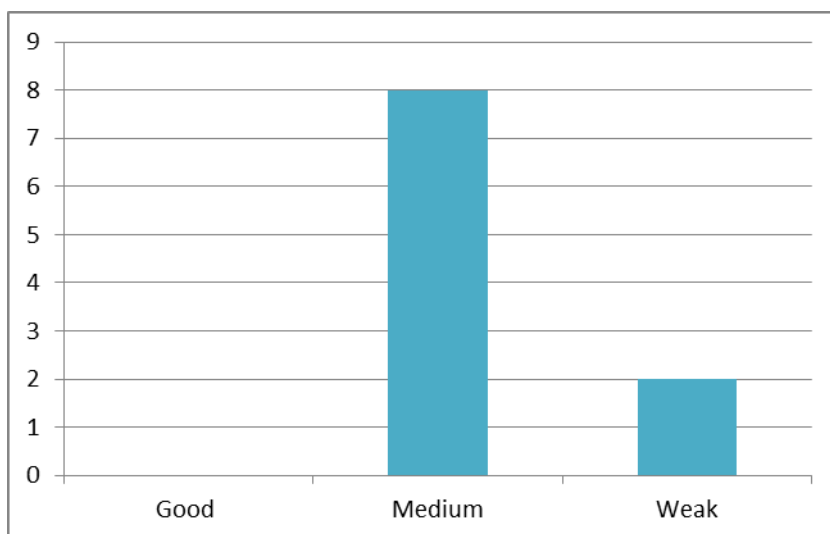
Figure 6: Students Interested in Reading



According to figure 6 we can notice that the majority of the students 80 % are less interested to participate in the reading activity in middle school and 20 % are more interested.

Question 3: How is the reading performance of the students?

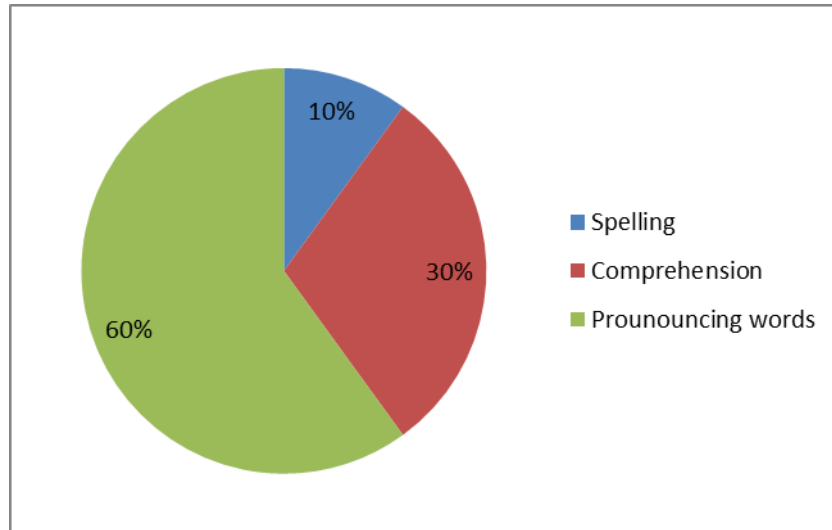
Figure 7: Performance of the Students in Reading



According to figure 7, the majority of respondents the reading performance of the students are medium 80 % , the next highest percentage of respondents said that 20 % are weak in reading performance on the other hand there is no percentage of good.

Question 4: What are the challenges that the students faced in reading?

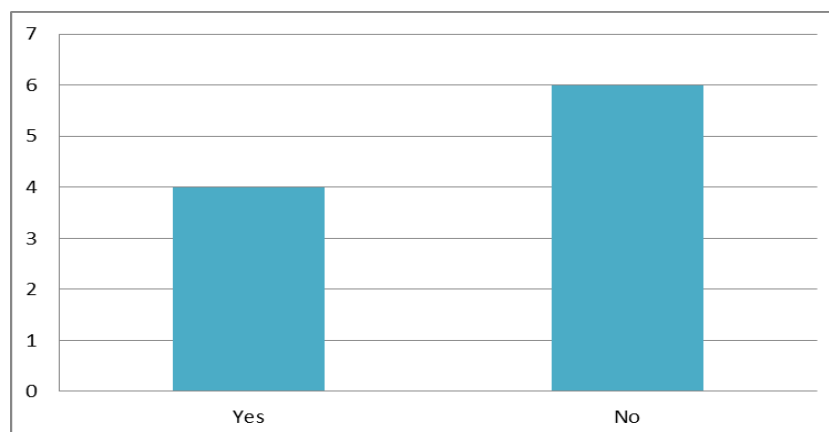
Figure 8: Recognizing the Obstacles Faced by Students



The figure 8 shows that the challenges that face students in middle school the majority of teachers notice that (60 %) have difficulties in pronouncing words the next highest percentage of respondents (30 %) reported that students struggle in comprehension on the other hand the smaller majority of respondent find (10%) that students have difficulties inspelling.

Question 5: The meaning of dyslexia?

Figure 9: The Level of Familiarity that Teachers Have with Dyslexia



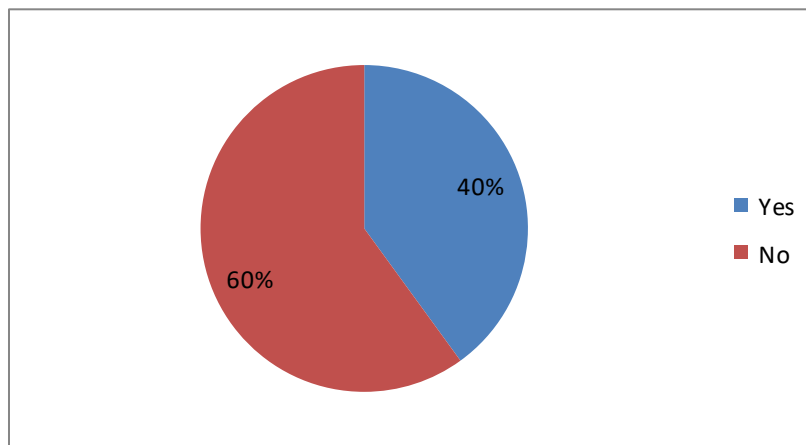
The figure 9 shows the category 40 % familiar with dyslexia mean, and 60 % of teachers unfamiliar with the term dyslexia mean.

Question 6: What is dyslexia?

The majority of teachers define dyslexia as “difficulty in learning that affects the skills involves in accurate and fluent words reading and spelling.” While other said that it’s a type of disabilities which the learners may struggle with decoding words.

Question 7: Do you have any dyslexic students in your classes?

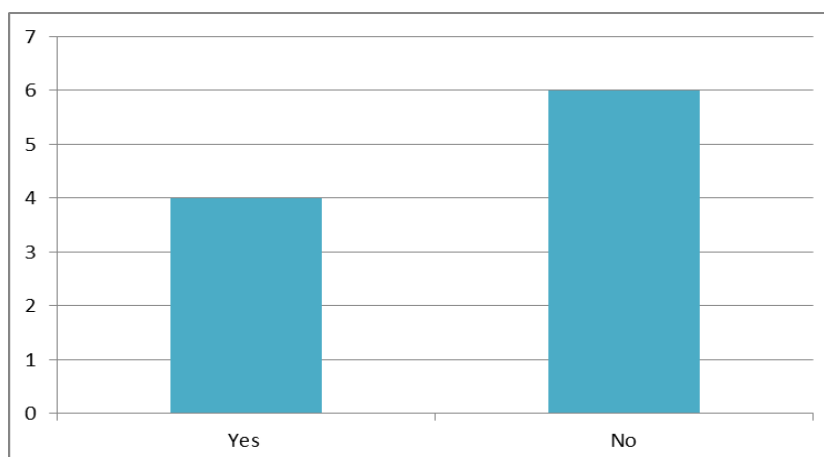
Figure 10: The Existence of Dyslexic Students in Classes



According to figure 10 we can notice that 60% of teachers do not have dyslexic’s students in the classes while 40 % they have.

Question 8: Do you work with dyslexic students?

Figure 11: The Work of Teachers with the Dyslexic Students



According to the information provided on figure 11, the majority of teachers (60 %) do not work with dyslexic students while (40 %) work with this category.

- Do you work with dyslexic students? Or do you refer them to speech therapists clinic directly?

Teacher's answers

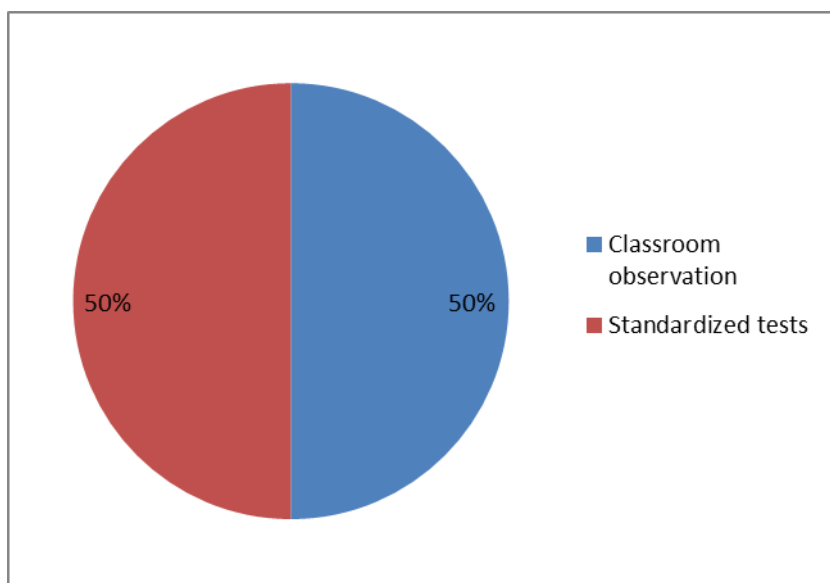
All the presented participants said "No" because there isn't speech therapists in our school and the teachers play an essential role in identifying students with reading difficulties including dyslexia.

Question 9: How do you deal with student if he feels weak?

The majority of teachers cannot deal with them; it's very hard for them because they do not have enough time for them.

Question 10: What methods do the teachers use to monitor and evaluate their student's level?

Figure 12: Methods for Evaluating Student Progress in the Classroom.



Based on the given information, we can notice that the same percentage (50 %) believe that classroom observation is the right methods for evaluating dyslexic students in the classroom and help them monitor students level, while (50 %) believe that standardized tests is effective.

Question 11: Do students have problems in decoding and recognizing words?

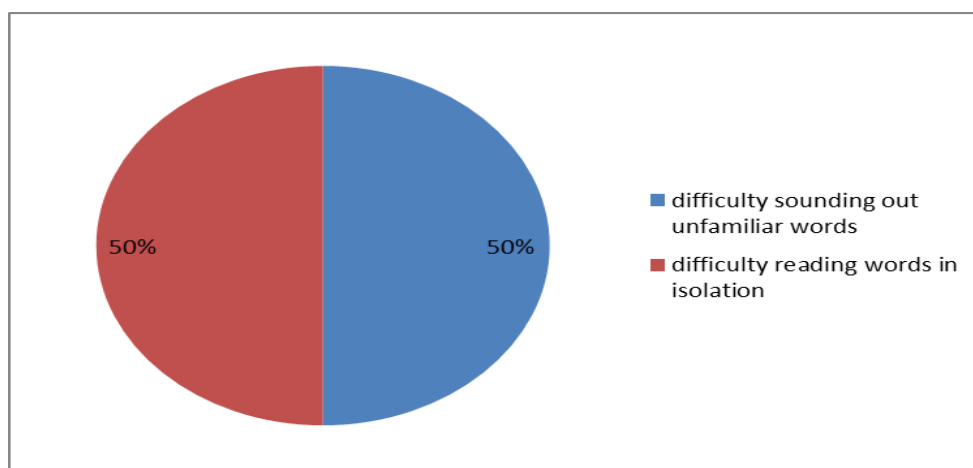
Table 2: Challenges that Face Students in Decoding and Recognizing Words.

The Existence of Challenges	Number of Teachers against/for
YES	10
NO	0

According to table 2 all teachers 100% said yes, dyslexic students in middle school have problems in decoding and recognizing words

- Do students have problems in decoding and recognizing words? If yes, what kind of problems are they?

Figure 13: Common Difficulties in Decoding and Recognizing Words



Based on figure 13 it seems that (50 %) of the teachers said that students have difficulty sounding out unfamiliar words while (50 %) of teachers said they have difficulty reading words in isolation.

Question 12: Do you think that support classes have a role in overcoming dyslexia?

Table 3: Teachers' Opinions about Support Classes.

Teachers' opinions	Numbers of teachers
YES	10
NO	0

According to table 3, teachers in middle schools see that support classes have a role in overcoming dyslexia.

2.5.2 Qualitative Data Analysis

The interview involved 12 questions it was administrated with speech therapists at Tiaret and Tissemsilt.

Question 3: How do you define dyslexia?

The majority of speech therapists define dyslexia as follow “*Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and /or fluent word recognition and by poor spelling and decoding abilities*”.

Question 4: How many years have you been working with dyslexic students?

The answers to this question varied, some of the speech therapists have from two to six years of experience, while others exceeded eight years.

Question 5: What is the hardest part about working with dyslexic students?

The majority of speech therapists said that the hardest part about working with dyslexic is helping them recognize letters and sounds, while others said that dealing with parents is the hardest job because they do not assist them in implementing the therapy programme for their children.

Question 6: What are the reasons that cause a person to develop dyslexia?

The majority of speech therapists answer to this question as follow “Dyslexia results from individuals differences in the parts of the brain that enable reading it tends to run in families. Dyslexia appears to be linked to certain genes that affect how the brain processes reading and language “.

Question 7: In your experience, do the genetic factors have anything to do with the problem of dyslexia?

The answers to this question were almost equal; some said that genetic factors are involved, while the other half stated that they have no relation to dyslexia.

Question 8: What are the difficulties faced by dyslexic students?

The answers to this question almost are the same most of them said that reading, writing and spelling are the most important difficulties that a dyslexic may face.

Question 9: What are the ways to help reduce this phenomenon?

The majority of speech therapists said that the best way to help reduce dyslexia is by early detection and intervention this is for parents , for teachers they have to provide a suitable study environment and use diverse teaching methods .

Question 10: What are the treatment methods taken to solve this problem?

The answers to this question were the same because the methods of treatment are also the same, all the speech therapists said that teaching the child through pictures and linking them with the names of different things is the most effective method.

Question 11: What do you know about multisensory techniques in teaching dyslexic students, and do you apply those techniques?

All the speech therapists said that they know multisensory techniques as a strategy that improves mastery of the rules of learning to read and treats this difficulty, and said that they use these techniques in treating students with dyslexia.

Question 12: How do you communicate with parents and involve them in support process?

The speech therapists answer that they communicate with parents face-to-face and every session of treatment give them various techniques to use with their children to help them at home.

Question 13: Are there cases of dyslexia have been treated?

The majority of speech therapists said that there are many cases have been treated through the methods that they use.

Conclusion

In this chapter we discussed field work and the methodology that is used in the research study, the sample and the participants, the data collection methods including a mixed methods approach was adopted involving a questionnaire for middle school teachers and semi structured interviews with speech therapists.

Chapter Three

Interpretation of the Results and Recommendations

3.1 Introduction

The interpretation and discussion of the data analysis in the current study will take place in chapter three of the teacher's questionnaire in middle schools and interviews with speech therapists and observation which seek to better understand dyslexia and the challenges that dyslexic students face in middle schools. This section will explain our research and suggest recommendations for teachers in middle schools, parents, and ministry speech therapists of education. Furthermore, we will discuss the limitations encountered during our research to provide perspective and insights into the teaching challenges that face dyslexic students in the Algerian middle schools.

3.2 Interpretations of the results

After the results were analysed, the findings obtained from the questionnaire with teachers in middle schools and the interviews with speech therapists were interpreted.

3.2.1 The Questionnaire Results Interpretation with Teachers

Our interpretation of the results aims to understand the difficulties of teaching dyslexic students in middle schools. The data analysis was conducted using a questionnaire to which middle school teachers responded in order to gain a better understanding of dyslexia.

Based on the analysis of the teacher questionnaire, the majority of students 80% are less interested in participating in reading activities because many students have problems with reading comprehension and learning disabilities such as dyslexia. Additionally, psychological issue like shyness and self-esteem, with the prevalence of technology students may not enjoy reading, on the other hand 20% are more interested to participate in reading activities are enjoying reading and interested in reading activities.

According to the analysis of teachers' questionnaires, it appears that the majority of students 80% have a medium level of reading performance because the majority of students are not motivated to read or may not see the benefits of developing their reading this can be lack of effort, lack of understanding or effectiveness of teaching methods and lack of teachers support. On the other hand 20%are weak in reading performance have a lack of support from teachers and parents and weak vocabulary, poor study and time managements skills while zero percent of good level in reading performance have environmental factors and lack of support from teachers and parents may struggle to stay motivated in their studies.

According to an analysis of the teachers' questionnaire, most teachers reported that have many challenges that students faced in reading 60% of students had trouble in pronouncing words correctly, This is because many students struggle with vocabulary, which makes it difficult for them to engage with the text and comprehend the content students who do not practice speaking and listening words may have challenges in pronouncing accurately, On the other hand 30% of students may have trouble in comprehension , understanding and analyzing the text because have a lack of vocabulary and comprehension is also influenced by students background knowledge and 10% may have trouble spelling words correctly or having errors in written words.

Based on the analysis of teachers questionnaire 60% said no don't know dyslexia because they are not familiar with this phenomenon that lack of education and awareness which can lead to misunderstanding of this phenomenon of dyslexia on the other hand 40% are familiar with dyslexia due to experience and because they have an information and knowledge about the phenomenon of dyslexia.

On the other hand, the majority of teachers define dyslexia as difficulty in learning that affects the skills involves in accurate and fluent words reading and spelling because they receive the same information or they misunderstanding of dyslexia.

According to analysis of teacher's questionnaire the majority of teachers 60% do not have any dyslexic students in their classes because may be a lack of awareness of dyslexia is not present in middle school or may need to understand dyslexia. On the other,40% have dyslexic students in their classes knowing dyslexia having a lack of information to understand dyslexia

Based on the analysis of teacher's questionnaire the majority of teachers 60% do not have time to work with dyslexics students due to lack of knowledge. While, 40% have an experience with dyslexics students.

On the other hand, the majority of teachers in middle school do not refer dyslexic students to the speech therapists centre ,consequently some teachers may not be familiar with the phenomenon of dyslexia or their importance of speech therapist school schools, while 40% refer them to speech therapists centre directly some of teachers feel a sense of responsibility of their students they may help them to success and try to fix the problem.

Depending on the analysis of teachers questionnaire 50% of teachers said that they use classroom observations to monitor and evaluate their students level it is due to observing

students in classroom to help them create a positive productive learning environment teachers gain a better strategies for improve their teaching practice on the other hand 50% of teachers use standardized tests to help students identify areas of strengths and weaknesses to understanding.

The majority of teacher's one hundred percent said yes students have problems in decoding and recognizing words because students may struggle with decoding words and some of them have dyslexia.

50% of teachers said that students have problems and difficulties in sounding out unfamiliar words and this due to lack of practices students do not have time practices while 50% have problems reading difficulty words in isolation is due to lack of phonemics awareness.

The results show that 100 %said yes support classes have a role in overcoming dyslexia because support classes also offer supportive and understanding environments where dyslexic students can build their self-confidence.

3.2.2 Interpretation of Interview Results

The analysis of the speech therapists insights and experiences aims to develop a comprehensive understanding of the challenges faced by the students with dyslexia and the approaches taken to solve this problem, including the experiences, opinions and recommendations of speech therapists. The description of the results aims to provide useful information regarding dyslexia and its characteristics.

-Personal Information

Understanding demographics can provide important insights into behavior, preferences, and needs that can influence decision-making and policy development.

▪ Age Distribution

The age distribution reveals that the majority of the speech therapists are relatively young, with 95% in the 23-28 age range, the rest are only 5% in 44-50 age range.

Experiences levels: The diversity in age might create a mix of experience and new ideas in the methods of treatment.

▪ Gender Distribution

The gender distribution indicates that the majority of the speech therapists are females with 90% being women and only 10% men.

- **Social attitude and stereotypes:** Traditionally , caring and nurturing roles in the health professions have been associated with women , while technical or specialist roles have been associated with men .This may contribute to gender expansion in the field of speech therapists where a focus on communication and empathy could attract more women to the profession .

The Speech Therapists Experience and Knowledge of Dyslexia (Question 3 and 4)

The speech therapists from 5 to 8 years of experience provided a precise definition of the term dyslexia unlike those with less than 5 years .This is often attributed to years of dealing with dyslexia , the more you deal with the problem , the higher your understanding and ability to solve it quickly .

The Hardest Part of Working with Dyslexic Students (Question 5)

The majority of speech therapists answered to this question that dealing with parents is the hardest thing, they do not assist their children to deal with the treatment progress .This often because parents do not know the seriousness of the condition and underestimate dyslexia, they do not realize that not helping their children overcome this stage can lead them to live with it throughout their lives.

The Reasons that Cause a Person to Develop Dyslexia (Question 6)

- **Biological Basis of Dyslexia ;** speech therapists point out that dyslexia is not only caused by the environment or lack of effort , but is also a condition caused by differences in brain functions, this underscores the importance of understanding dyslexia as a neurological condition that affects the way the brain processes language and reading.

The importance of Early Intervention : With the understanding that dyslexia has a biological and genetic basis, health professionals , educators and parents can work together to provide early intervention and support to children who may be at risk of dyslexia .Early diagnosis and intervention can help reduce the impact of dyslexia on a child's academic and social development improving productivity and quality of life in the long term .This underscores the importance of early screening, assessment ,and intervention to help children with developmental disabilities reach their full potential .

The Relationship of Genetic Factors and Dyslexia (Question 7)

The differing responses of speech therapists regarding the role of the brain in dyslexia indicate a lack of understanding or clarity in this area. There may still be some debate or uncertainty about the role of genetics in dyslexia. It is important to note that dyslexia is a complex neurodevelopmental disorder with many possible contributing factors, including genetic and environmental influences. Research in 2022 has shown that genetic factors play an important role in dyslexia. Many comments from speech therapists point to the need for research and collaboration in the field of dyslexia to better understand the causes of this problem and inform effective interventions. It is important to consider different approaches to dyslexia in light of the complex interacting of physical, cognitive, and environmental factors in its development and manifestation.

The Difficulties Faced by Dyslexic Students (Question 8)

The speech therapists answered that the most common problems faced by students who do not have difficulty matching the common features of dyslexia are reading, writing, and spelling. Dyslexia is a specific learning disability that primarily affects reading and language skills. People with dyslexia may have difficulty distinguishing words, recognizing sight words, and understanding the relationship between letters and sounds which can affect reading comprehension and comprehension. Writing and spelling problems are also common in dyslexia due to problems with phonological processing, working memory and language skills. These issues can manifest as a struggle with vocabulary accuracy, organizing ideas together in writing and presenting ideas effectively on the page. Overall, the speech therapists' response highlights key challenges for students without disabilities and emphasizes the importance of intervention and support to address them. It is important that teachers, parents and speech therapists provide education and accommodations to help students with disabilities overcome these challenges and succeed in school.

The Ways to Help Reduce this Phenomenon (Question 9)

Speech therapists' recommendations highlight the importance of collaboration between parents, teachers, and speech therapists in resolving the chronic problem and providing the necessary support and resources for students with dyslexia to achieve academic success and improve their learning by working together. Parents and teachers can create a supportive and inclusive learning environment that meets the needs of students with dyslexia and enable them to reach their full potential.

The Treatment methods Taken to Solve this Problem (Question 10)

Focusing on using pictures to help bridge the gap between visual processing and language skills can provide recognition for the visual strengths that students with dyslexia often possess. By level ranging these strengths through visual learning methods, speech therapists can improve comprehension, memory and retention of information in dyslexic students. Furthermore, Focusing on associating pictures with nouns may indicate that we are focused on establishing relationships and connections between visual stimuli and language, this may help strengthen language processing and reading in students with dyslexia. This approach is consistent with the concept of multisensory learning, which combines multiple senses to enhance learning and memory.

The Speech Therapists Knowledge about Multisensory Techniques and if they Apply Them (Question 11)

The fact that these speech therapists know and use various techniques as strategies to improve the reading skills of students with dyslexia shows that they are aware of the effectiveness of such methods in meeting the needs of society. Their responses indicate that they are aware of evidence based interventions for dyslexia and implement their own treatment strategies. This positive response from speech therapists demonstrates a commitment to use activities that have proven to be beneficial for dyslexic students. It also demonstrates their willingness to adapt their approach to better meet their students and provide comprehensive and effective care. Overall, the fact that speech therapists apply a variety of techniques in their work with dyslexic students is a positive sign of their commitment to evidence based practice and their efforts to support the learning and development of their students with dyslexia.

The Way of Communication with Parents (Question 12)

Speech therapists promote collaborative interventions by connecting directly with parents and providing them with strategies to help their children outside of therapy. This approach recognizes the important role that parents play in supporting their children's development and recognizes the impact that strengthening knowledge and skills can have on the child as a whole. Additionally, by communicating regularly with parents and providing them with tools and materials to support their child's learning. Speech therapists develop a partnership and share responsibility for the child's well-being and development. This approach

can help create a supportive and collaborative environment where the child's needs are met and supported in a variety of ways .Overall, having a speech therapist play an important role as a parent in the process of supporting children with dyslexia through communication and education provides a holistic and holistic approach to intervention that prioritizes collaboration empowerment, and the child's success over the long term.

Are there any Cases of Dyslexia that have been treated? (Question 13)

Their approach to dyslexia treatment is effective and produces positive results for their clients .This success may indicate that speech therapists have a better understanding of dyslexia and it's symptoms as well as appropriate , evidence-based approaches to meeting the unique needs of people with dyslexia .The fact that speech therapists have to deal with so many challenges clearly shows that they have experience and expertise in working with people with dyslexia and develop an effective intervention based on each student's unique needs .This demonstrates a willingness to provide personalized and practical support to help students overcome dyslexia and improve their reading and language skills . Additionally, successful treatment of many cases may indicate that the speech therapists takes a collaborative approach and relies on dyslexics for help ,working closely with students with dyslexia and their families to develop treatment plans and goals .This approach can help build trust and rapport with dyslexics his approach can help build trust and rapport with dyslexics and ensure activities are tailored to each individual's specific needs and wishes .Overall , the fact that speech therapists treat many problems in their own way indicates that they have a strong track record of good practice and good results in their work with people with dyslexia. This can in still confidence in their abilities in other speech

The rapist professionals, as well as potential clients seeking support for their dyslexia issues.

3.2.3 Interpretation of the Observation

Our interpretation of the observation aims to understand how the speech therapists deal with dyslexic students and improve their reading and language skills.

Identification of specific Problems: The speech therapists highlighted specific difficulties that the dyslexic student faced in reading, language skills, for instance decoding words, fluency, and comprehension and spelling words.

Instructional Strategies: View teaching strategies used by the speech therapists to support the dyslexic student in developing reading and language skills, and the using of multisensory techniques to help him build vocabulary and reading comprehension.

Individualized Instruction: The speech therapists have tailored an approach to meet needs of the dyslexic student and discover his strengths and weaknesses by monitoring progress and providing feedback.

3.3 Recommendations

The present study has made some recommendations for further studies we attempt to suggest the following recommendations that are useful for teachers in middle school, parents and ministry of education.

3.3.1 Recommendation for Teachers in Middle School

- Teachers play a crucial role in the classroom to help students improve their reading skills and identifying students with reading difficulties. According to the findings the majority of teachers do not know dyslexia teachers need to be able to differentiate between dyslexic students and lazy students.
- The teachers should work closely with speech therapists centre.
- Teachers should encourage their dyslexic students it is important for teachers to support and provide positive reinforcement to help dyslexic students build confidence and providing extra time for assignments.
- According to the results, we notice that the majority of students have problems in decoding and recognizing words teachers can implement the different strategies to help dyslexic students like multisensory teaching.
- Dyslexic's students should study in classes together to not feel underestimated and weak compared to normal kids with different tools of study like games, watching videos and colourful items.

3.3.2 Recommendation for parents

Parents are better able to assist their child and provide the necessary resources for academic achievement when they take the time to educate themselves about dyslexia and how

it affects their child's skills. Learning about dyslexia and knowing the difficulties from website.

- It is crucial that parents contact educators as soon as they see signs of their children struggling with reading, spelling, or writing in order to receive early intervention.
- Assist your child and be encouraging so they can develop self-confidence.
- Communicate with your child schools.

3.3.3 Recommendation of Ministry of Education

- Encourage the ministry of education to put screening programmes into effect so that dyslexic students can be identified early.
- Provide early assistance is essential for dyslexic students to achieve academic success.
- Raising awareness among teachers to identify cases of dyslexia.-Speech therapists must be available in every school.
- Provide teacher and other school employees with training and opportunity for professional development so they can identify and assist students who struggle with dyslexia.
- Speech therapists must be available in all schools.

3.4 Limitation of the Study

The present research is about challenges of teaching dyslexic students in middle school however, there are some limitations which are necessary to be mentioned.

Teacher's refusal to answer the questionnaire and their refusal to fill out them are important limitations of the study .First not including the teacher sample may lead to biased results because the views and insights of these teachers are not reflected in the data analysis this reduces the generalizability of the research results. Additionally, keeping the questionnaire of teachers deprives us of useful information that could prove our work and draw important results without complete questionnaire we may not be able to fully analyze and interpret the data limiting the depth and scope of our research.

Teachers failure to understand the term dyslexia poses a serious problem to our research; it indicates a lack of awareness or knowledge about a particular learning problem that may affect a large proportion of students in the classroom; this lack of awareness can lead to misdiagnosis or misunderstanding of dyslexia symptoms which can lead to misdiagnosis or inappropriate intervention for students experiencing dyslexia. Additionally, if teachers are

unfamiliar with dyslexia they may not be able to provide appropriate, support, accommodations, or resources to students with dyslexia hindering their academic and social progress overall, teachers lack of knowledge about this problem can have a significant impact in the quality of education and support provided to students with dyslexia in schools.

One of the challenges we faced was distance because going to speech therapists from our home was difficult, and time consuming this also costs extra money this led to data collection and interviews with experts, we also encountered difficulties in coordinating programmes and logistics services with participants who had limited quotas due to work schedules and distance for us

Conclusion

To sum up this chapter has interpreted the analysis of results by observing the results of various methods for collecting data gained by questionnaire with middle school teachers and interview with speech therapists and observation we have gained insights about the difficulties of teaching dyslexics students in middle school. The research aims to provide suitable recommendations simplify challenges of teaching dyslexics students in middle school.

General Conclusion

General Conclusion

Teaching students with special needs such as autism, dysgraphia and dyslexia requires a reading environment that helps them develop and reach their full potential .Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and fluent word recognition and by poor spelling and decoding abilities. Throughout this research, we have explored both the challenges and strategies associated with teaching dyslexic students in middle schools.

The research employed mixed method approach to gather a credible and valid data these methods included conducting interview with six speech therapists to gather their knowledge about dyslexia and also their experiences with dyslexic students and questionnaire was administrated to English teachers in middle schools in Tiaret to know whether they are familiar with the term dyslexia and their dealing with this category and observation was scheduled with speech therapist during his treatment session with a dyslexic students to understand closely this weaknesses and also to figure out the treatment methods the speech therapist use to reduce this phenomenon .

The results of this study sheds light on the difficulties dyslexic students face during their education journey, as most them struggle with poor spelling because their mental pronunciation of the word differs from their written spelling. Dyslexic students often have problems dealing with sentence structure, hand writing, grammar and syntax and poor organization, and lack of diverse vocabulary.

Similarly, middle school teachers encounter difficulties when working with dyslexic students, the most significant challenge is word recognition and decoding, as well as sounding out new words and reading challenging words on their own.

In this perspective, Speech therapists highlight the importance of collaboration between parents, teachers, and speech therapists in resolving the chronic problem. Additionally, they emphasize the value of multisensory approaches which involve using a combination of modalities to help students learn and distinguish letters and words, for instance they use pictures to help bridge the gap between visual processing and language skills in order to provide recognition for the visual strength or they use their fingers as help while speaking. Moreover, monitoring progress and providing feedback play an effective role in the student progress.

Based on the findings, recommendations were made to facilitate teaching dyslexic student in middle schools, these include dyslexia awareness and understanding of challenges it presents , and learning effective strategies for supporting dyslexic students in the classroom from outline resources ,and encourage collaboration between teachers and speech therapists to develop personalized learning plans for dyslexic students because the speech therapists can provide valuable insights and strategies for improving reading and language skills ,

As well as support implementing accommodations and modifications in the classroom and also the teachers can help create a supportive school culture throughout providing guidance for their colleagues who are less familiar with dyslexia.

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Appendices

Appendices

Appendix A Middle School Teacher's Participants Questionnaire

You are kindly invited to fill the following questionnaire , this questionnaire which aim to gain a better understanding about dyslexia and the challenges that faced by the dyslexic students I will appreciate if you answer the following questions , if you have any Recommendation please mention them in the space provided at the end of the questionnaire thank you .

N.B: Your answers will be kept anonymous.

1. How long have you been teaching in middle school setting?

.....

2. How many students are interested to participate in the reading activity?

Less than50% More than 50%

3. How is the reading performance of the students?

Good Medium Weak

4. What are the challenges that the students faced in reading?

spelling Comprehension Pronouncing words

5. Do you know dyslexia?

Yes No

6. What is dyslexia?

.....
.....
.....

7. Do you have any dyslexic students in your classes?

- Yes
- No

8. Do you work with dyslexic students, or do you refer them to speech therapists clinic directly?

.....
.....
.....

9. How do you deal with students if he feels weak?

.....
.....
.....

10. What methods do the teachers use to monitor and evaluate their student's level?

- Classroom observation
- Standardized tests

11. Do students have problems in decoding and recognizing words? If yes, what kind of problems are they?

- difficulty sounding out unfamiliar words
- difficulty reading words in isolation

12. Do you think that support classes have a role in overcoming dyslexia?

- Yes
- No

Any comment or feedback

.....
.....
.....

Appendix B
Interview with speech therapists:

1. Age

.....

2. Gender

.....

3. How do you define Dyslexia?

.....

4. How many years have you been working with Dyslexic Students ?

.....

5. What is the hardest part about working with Dyslexic Students?

.....

6. What are the reasons that cause a person to develop dyslexia?

.....

7. What are the difficulties faced by a Dyslexic Students?

.....

8. What are the ways to help reduce this Phenomenon?

.....

9. In your experience, do the genetics factors have anything to do with problem of dyslexia?

.....

10. What are the treatment methods taken to solve this problem?

.....

11. What do you know about the multisensory techniques in teaching dyslexic students and do you apply those techniques?

.....

12. How do you communicate with parents and involve them in support process?

.....

13. Are there cases have been treated for dyslexia?

.....

Appendix C

Observation

Table 4: Challenges Observed During a Treatment with Dyslexic Students.

Challenges observed	Description	Impact
Reading difficulties	Struggles with decoding words ,fluency and comprehension	Difficulty in reading aloud and understanding written words
Writing challenges	Difficulty with spelling ,grammar organization and hand writing	Impaired written expression and communication
Processing speed	Taken longer to process auditory and visual information	Slower response time during activities and discussions
Attention and focus	Distractibility difficulty staying on tasks	Reduced engagement and participations in therapy activities
Self confidence and motivation	Low self confidence frustrations, anxiety ,avoidance ,behaviour	Impact on willingness to participate seek help and persist through challenges

الملخص

عسر القراءة هو عاقبة تعلم محددة ذات اصل عصبي بيولوجي و تتميز بصعوبات في التعرف على الكلمات بدقة و او بطلاقة و ضعف قدرات التهجئة و فك الشفرات و الغرض من هذا البحث هو تعزيز فهمنا للتحديات التي يواجهها المعلمون في المدارس المتوسطة اثناء تدريس الطلاب المصابين بعسر القراءة و كذلك الصعوبات التي يواجهها المعلمون في المدارس المتوسطة اثناء تدريس الطلاب المصابين بعسر القراءة و كذلك الصعوبات التي يواجهها المتعلمون المصابون بعسر القراءة و للوصول الى الاهداف تم استخدام نهج مختلط من خلال مقارنة اداتين رئيسيين لجمع البيانات كما تم اجراء ملاحظة لاكتساب رؤى عميقة حول هذه القضية و قد تم توزيع استبيان على 10 مدرسين للغة الانجليزية في المدارس المتوسطة لاستنباط آرائهم الثاقبة فيما يتعلق بعسر القراءة و التحديات التي يواجهونها كما تم اجراء مقابلة شبه منظمة مع 6 معالجين للنطق لاكتساب المزيد من وجهات النظر حول اكثر الصعوبات التي يواجهها الطالب المصاب بعسر القراءة كما تسجيل ملاحظة في مركز معالج النطق اثناء جلسة علاج مع شخص مصاب بعسر القراءة تشير النتائج الى ان المتعلمين في المدارس المتوسطة غير ملمين بمصطلح عسر القراءة و لا يعرفون كيفية التعامل معهم بينما يجد معالجو النطق طرقا لحل المشكلة التي يعاني منها الطلاب المصابون بعسر القراءة في القراءة و الكتابة و التهجئة يوصى بان يكون المعلمون في المدارس المتوسطة على دراية بعسر القراءة و مجهزين باستراتيجيات فعالة لدعم الطلاب الذين يعانون من اختلافات التعلم.

LE RÉSUMÉ

La dyslexie est un trouble spécifique de l'apprentissage d'origine neurobiologique, caractérisé par des difficultés de reconnaissance précise et ou fluide des mots et par de faibles capacités en orthographe et en décodage. Le but de cette recherche est de faire avancer notre compréhension des défis auxquels sont confrontés les enseignants à des difficultés auxquelles sont confrontés les enseignants du collège lorsqu'ils enseignent à des élèves dyslexiques. Ainsi que des difficultés auxquelles sont confrontés les apprenants dyslexiques. Pour atteindre les objectifs, une approche mixte a été utilisée, comprenant deux principaux outils de collecte de données et une observation pour obtenir des éclairages approfondis sur cette question. Un questionnaire a été administré à 10 enseignants d'anglais dans des collèges pour recueillir leurs points de vue éclairés sur la dyslexie et les défis auxquels ils sont confrontés. Une interview semi structurée a également été menée avec 6 orthophonistes pour obtenir des perspectives supplémentaires les difficultés les plus importantes auxquelles un élève dyslexique est confronté. Une observation a également été réalisée dans un centre d'orthophonie lors d'une séance de traitement avec un dyslexique. Les résultats suggèrent que les enseignants du collège ne sont pas familiers avec le terme de dyslexie et ne savent pas comment y faire face, tandis que les orthophonistes trouvent des moyens de résoudre les problèmes de lecture, d'écriture et d'orthographe des élèves dyslexiques. Il est recommandé que les enseignants du collège aient des connaissances sur la dyslexie et soient équipés de stratégies efficaces pour soutenir les élèves présentant des différences d'apprentissage.