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An Investigation of Teachers' Awareness about Dyslexia in Middle School Education in Tlemcen

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Declaration of Originality

I declare that **An Investigation of Teachers' Awareness about Dyslexia in Middle Schools Education in Tlemcen** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Hadjer HAMLI

Dedications

This dissertation is dedicated to my parents, and to all whom I love.

Abstract

The main aim of this study is to explore if the middle school teachers in Algeria are conscious of the term dyslexia. This provides a better understanding of teacher's perceptions about dyslexia and to which extent they are aware of it. It also seeks to investigate teachers' ability to identify the dyslexics' characteristics and their ability to manage these children. The sample population comprised thirty four teachers from five different middle schools in Tlemcen, Algeria. A qualitative and quantitative research, using a structured questionnaire and a classroom observation had been utilized to collect data about teacher's awareness and knowledge concerning dyslexia and its issues. it was found that teachers had inadequate knowledge of dyslexia, and were unable to identify and mange it inside their classrooms. On this basis, and in response to such inadequacies, some general recommendations and other practical suggestions have been put forward to cater for dyslexic children in educational institutions.

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List of Abbreviation

ADD   Attention Deficit Disorder

ADHD   Attention Deficit and Hyperactivity Disorder

aMRI   anatomical Magnetic Resonance Imaging

IDA   International Dyslexia Association

IQ   Intelligence Quotient

MSI   Magnetic Source Imaging

NJCD   National Joint Committee on Learning Disabilities

General Introduction:

The most common reading disability is dyslexia. The British Dyslexia Association defines dyslexia as a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. This reading disability encompasses various symptoms such as poor spelling outcomes, reading fluency and difficulties in expressing oneself. Failure to diagnose children coping with dyslexia is a potential risk of discrimination and social exclusion. Teacher awareness refers to the recognition and understanding of a phenomenon by the teacher within the educational system. One can reasonably deduce that if teacher awareness and understanding of special needs education is poor, their level of understanding of dyslexia is even lower, since it is a sub-division in the field of learning disabilities.

Research shows that dyslexia is a confusing term for many teachers as they are often unsure about its definition and generally struggle to tell the difference between dyslexic learners and slow learners (Wadlington, Jacob & Bailey, 1996). According to Wadlington and Wadlington (2005), teachers frequently have misconceptions about dyslexia. Their report showed that teachers' lack of awareness and misconceptions have negative effects for the dyslexia. The aim of this Master thesis is to explore if the middle school teachers in Tlemcen, Algeria, are conscious of the term dyslexia. This provides a better understanding of teacher's perceptions about dyslexia and to which extent they are aware of it.

Accordingly, three research questions are asked as follow:

1. Are middle school teachers aware about dyslexia?
2. Do they have the ability to identify dyslexic children in their classroom?
3. Do they have the ability to manage dyslexic children in their classrooms?

These inquiries are replied by expressing the accompanying speculations:

1. Teachers' knowledge about dyslexia is low.
2. Teachers' ability to identify dyslexic children is weak.
3. Teachers' ability to manage dyslexic children is weak.

A qualitative and quantitative research, and through the use of a structured questionnaire and a non-participant observation, data had been collected about teacher's awareness and knowledge concerning dyslexia and its issues. The texts provided by the surveys were subjected to deep analysis.

This dissertation is separated into two sections. The principal section is committed to the theoretical framework. It will offer an opportunity to define learning disabilities generally, then it will handle dyslexia in a more detailed approach, with a focus on its causes and characteristics. Finishing up this theoretical review by stating the misunderstandings and misconceptions related to dyslexia. Concerning the second chapter, it depicts the practical work of the dissertation. Primarily, it demonstrates the methodology utilized as a part of the examinations that were done in the field required. Besides, it shows the research instruments, and it finally ends up with the analysis and interpretations of the information assembled and some recommended answers for the issues that were seen during the examinations.

CHAPTER 1

Literature Review

1.1 Introduction

This dissertation aims to analyse the awareness of dyslexia as a term, and as a reading difficulty among the middle school teachers in Tlemcen, Algeria. The theoretical part of this research is mainly concerned with learning disabilities in general, and dyslexia in particular. The practical part of the research focuses on the investigation of awareness of middle school teachers concerning dyslexia. The purpose of the research is to figure out if the teachers are aware of the term dyslexia, and understand their perception about dyslexia and children with dyslexia. There had been no previous research concerning the awareness of middle school teachers for dyslexia in Algeria. The considerable lack of information by teachers about this language impairment and the different problems it presents could potentially hinder normal educational and psychological development of children coping with dyslexia. These children could be unintentionally discriminated and not included equally in class, which can cause social problems in their later life. Knowing that education has a significant impact upon quality of life of a person, the lack of a proper education in children with dyslexia may hinder their development, and therefore, result in their exclusion from the society. The lack of knowledge concerning dyslexia threatens the success in schools, employment and may cause social segregation (EDA, 2013). Therefore, the knowledge of teachers concerning dyslexia is of high importance for their children to have a better life. This research can also contribute in the inclusion process of children coping with dyslexia in middle schools. Teachers with up-to-date knowledge of dyslexia can be of good help for children who face such a challenge.

Dyslexia is the most common reading disability. Fifteen to twenty percent of the population copes with different symptoms of dyslexia, such as poor spelling, reading fluency and difficulties in expressing themselves. "The disorder has lifelong persistence, reading retardation being merely one of its manifestations" (Ramus, et al., 2003, p. 841). These difficulties in spelling and fluent word recognition that correlate to poor phonological processing, characterize dyslexia as a specific learning difficult. The intelligence remains not affected as people with dyslexia often can have talents in different fields such as art, design, computer science, music, sales and mechanics.

The present dissertation consists of a conducted qualitative research in the field of dyslexia and teachers' awareness of it. Initially, it gives the reader a short introduction to the presented study and its choice. Literature review discusses the background on the reading impairment. Through this work, the reader will get the opportunity to get familiar with the term dyslexia and provide up-to-date information of this field, its definition and manifestations.

Since there is limited prior research concerning children coping with dyslexia in Algeria, the present work provides information concerning children with disabilities and their legitimate rights for school education. This information is a relevant contextual background in qualitative methods.

1.2 The Choice of the Field of Study

Various reasons determined the researcher's choice of investigation on the awareness about dyslexia among middle school teachers in Tlemcen. The first reason is my academic curiosity and interest within the field of children with disabilities and their right of social inclusion. My enthusiasm about understanding the issues concerning the children with disabilities, increased during my studies in University of Abubakr Belkaid. Taking into account the poor conditions in Algeria, especially when it comes to children with disabilities, motivated me to study the awareness of teachers concerning dyslexia in children.

The poor educational conditions in Algeria and the lack of research studies concerning disabilities in general and specifically the learning disability known as dyslexia, call for various research studies. Hardly, any research has been carried out in Algeria concerning children with dyslexia. Thus, a need of research studies concerning these children and children with all kinds of disabilities in Algeria is evident.

Parents and meaningful others are the primary subjects children would communicate with. Another affluent social agent with whom children interact are school teachers. Since the pedagogues have a significant role in children's development, it is meaningful to learn more about teachers awareness of the term dyslexia, and find out what knowledge do they possess

concerning this particular learning disability. Knowing the state of the education system in Algeria made me curious to understand if the teachers are aware of the term dyslexia.

The issues that come with dyslexia can be improved if awareness of dyslexia is increased. "Without sufficient knowledge in this area, failure in school, employment, general communication impairments and social segregation are common threats, with well-known consequences in the lives of those affected, their family members and society" (EDA, 2013 p.1). Nirje 1969, points out the importance of children with disabilities and their needs. Normalization / SRV is a main component in the field of learning difficulties (Yates et al., 2008). Normalization suggests that people with learning difficulties should enjoy the good things in life as close as other people in society (Walmsley, 2001). According to Nirje 1966, having a normal life for children with disabilities same as other children is what normalization principle strives for. This means that they should enjoy the good things in life same as other people.

It is crucial to let the children with disabilities find their own personal abilities. It is very important to let them experience their personal qualities so they can build their self-image. Whereas, dismissing and ignoring their personal qualities leads to stress, unhappiness and confusion. "Childhood is a highly developmental period of great importance for learning about one's own personal abilities and potentialities, for obtaining understanding of oneself, and for building self-confidence that can serve as sound basis for life after the school years" (Nirje 1969, p. 20). From this perspective, it can be claimed that the teachers lack of knowledge concerning the children's needs, in this case, children with dyslexia can result in ignoring their needs and therefore, children might end up being discriminated or excluded. According to Reid, inclusion is a process that flourish over tile and "depends on the preparation and the foundation that have been put in place" (Reid, 2005a, p. 100).

Other studies also agree that the principle of inclusion is for the schools to offer a proper environment for children (Clark, Dyson & Millward 1995; Jenkinson, 1997). These definitions recognize the effort that needs to be given to prepare conditions so that the inclusion of these children can happen. Preparing the conditions for these children means matching the educational needs of these children (Reid, 2005a). From this perspective, schools as institutions should strive in progressing social inclusion by offering better environment for these children. If the teachers are not aware of dyslexia, it can obscure their abilities as teachers to recognize the needs of these

children. This lack of knowledge among teachers is a social problem, since it can affect the children's personal achievement and later in their life. Failing to understand the needs of these children by responsible actors such as teachers, the society can neglect to fully include fifteen to twenty percent of the pupils in the education process. The extent of this non-inclusion can have major social implications beside the personal issues faced by the individuals coping with this disability.

In the following section, I will elaborate and define dyslexia. A review of the salient development in the fields will be presented with various research studies concerning dyslexia, its symptoms and difficulties.

1.3 Learning Disabilities

This chapter is a review of learning disabilities in general, in addition to the definitions, causes, characteristics and evaluation of dyslexia.

Learning disabilities is the most prolific type of disabilities in special needs education. There are several definitions regarding 'learning disabilities'. Most of the time, experts in the field are in a precarious position when wording the definition very carefully since it has implications for funding, identification, remediation and access to education(Hamill et al., 1987).

1.3.1 Definition of Learning Disabilities

The term 'specific learning disabilities' was first coined by Kirk in 1962 (kirk & Kirk, 1983). The next definition is seen as the first definition of learning disabilities:

> A learning disability refers to retardation, disorder or delayed development in one or more of the processes of speech, language, reading, spelling, writing, or arithmetic resulting from a possible cerebral dysfunction and/or emotional or behavioural disturbance and not from mental retardation, sensory deprivation, or cultural or instructional factors.
>
> (Kirk & Kirk, 1983, p. 20).

The National Advisory Committee on Handicapped Children (NACHC), in 1967, developed a definition that became widely used for legislation and funding in the United States:

> Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language,

spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage.

<div align="right">(Torgesen, 2004, p. 22)</div>

The National Joint Committee for Learning Disabilities (NJCLD), in 1990, gave a definition that is still enjoying popular consensus (Torgesen, 2004):

> Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviours, social perception, and social interaction may exist with learning disabilities, but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences

<div align="right">(Torgesen, 2004, p. 23).</div>

The definition by Kirk in 1962 considers learning disabilities as an 'emotional disturbance'; the NACHIC (1967) says that a learning disability may be a result of physical injury, as the NJCLD (1990) states that a learning is intrinsic to individuals. Nevertheless, only th1.4e definition of NJCLD (1990) that acknowledges that a learning disability is a lifelong disorder, and presumes the role of a dysfunctional central nervous system in learning disabilities. However, the three definitions mentioned above share some similarities. They are all in agreement about the characteristics of a learning disorder such as problems in reading, writing, and spelling. They recognize that a 'learning disability' is not due to social or cultural influence, not to ineffective classroom instruction.

1.4 Dyslexia

As autism and ADHD (Attention Deficit Hyperactivity Disorder) are the more common learning disabilities, dyslexia is considered as the most common learning disability in middle schools since the average number of dyslexic children universally appears to be between 10-15% of the population (Wadlington&Wadlington, 2005).

Since the actual research work is concerned with teachers' awareness about dyslexia in middle schools, a more detailed investigation on dyslexia is now presented.

Before looking at what Dyslexia is, it is important to consider what dyslexia is not. Olson (2002) says that poor reading ability that is linked to deficient educational instruction and home environmentdoes not constitute dyslexia. Nevertheless, there is a significant number of children struggling to learn to read effectively, regardless of adequate instructions. Those children are considered dyslexic.

The literal meaning of dyslexia is 'difficulty with words'. It is a specific learning disability in which the individual experiences difficulties with writing, spelling, and pronunciation of words. Even though children coping with dyslexia have the cognitive abilities needed and exposure to adequate instruction, these difficulties still exist. (International Dyslexia Association, 2008). Dyslexia is considered to be a complex neurobiologically based condition, and a lifelong disability since it is not an illness, there is no cure. (Department of Basic Education, 2010). People who struggle with Dyslexia experience lack of academic progress, misinterpretation of social hints, low self-esteem, depression and anxiety.

Dyslexia has been defined in different ways. However, agreement on what the term means remains a challenge for researchers. Several definitions are fixed on the neurobiological basis (e.g. 'It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin') (Miles, 1995, p.40). Further definitions refer to dyslexia's observed symptoms (e.g. "… fails to attain the language skills of reading, writing and spelling") (Miles, 1995, p.40). Other definitions incorporate instructional methods (e.g. "… is often unexpected in relation to other cognitive abilities and the prevision of effective classroom instruction.") (Lyon, Shaywitz&Shaywitz, 2003, p. 2).

As research and understanding have increased, definitions of dyslexia have evolved over time. One of the pioneers in the field of dyslexia, Samuel Orton (1879-1949), described dyslexia as a neurological disorder that responds to environmental treatment (Pennington, 2002). Furthermore, other biological definitions are founded on the problems related to brain structure, brain function, neuro-biological factors and heritability (Vellutino, Fletcher, Snowling& Scanlon, 2004). For instance, "Dyslexia can be defined as a neuro-development disorder with a biological origin…" (Frith, 1999, p. 192).

As some researchers believe that dyslexia occurs at a biological level, others believe that the problem occurs at a cognitive level. Isabelle Lieberman (1921-1990) who is one more pioneer in the field of dyslexia, made considerable contribution to our understanding of the cognitive processes involved in dyslexia. Isabelle proposed the phonological hypothesis as an explanation for dyslexia, which is a hypothesis that is still widely accepted by other experts in the field (Pennington, 2002). Snowling (1987) has provided evidence for Liberman's original proposal and enjoys much support for her own proposed phonological deficit hypothesis. Indeed, a plethora of definitions of dyslexia includes a component of phonological awareness. Fletcher, Coulter, Reschly, and Vaughn (2004) believe that since definitions influence identification, a definition of dyslexia should focus on a response to instruction, while Fitch (1999) argues that even though dyslexia has a neurobiological origin with certain behavioural signs, cultural influences cannot be excluded in a definition.

The definition of dyslexia and, its contributing factors, which is seen as an "evolution" follows.

The World Federation of Neurology, according to Miles (1995), proposed two definitions of dyslexia:

> Specific developmental dyslexia: A disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and socio-cultural opportunity. It is dependent uponfundamental cognitive disabilities which are frequently of constitutional origin.

> (Miles, 1995, p. 40).

This definition refers to the influence of instruction and socio-cultural factors. Dyslexia; "A disorder in children who, despite conventional classroom experience; fail to attain the language

skills of reading, writing and spelling, commensurate with their intellectual abilities." (Miles, 1985, p. 41).

The second definition focuses more on the characteristics of dyslexia. However, both definitions reflect a 'discrepancy theory of dyslexia". This theory points out the discrepancy between expected and observed achievement (Tonnesen, 1997). While expected achievement is mainly based on the child's intelligence quotient (IQ), the observed achievement is based on the child's academic progress at school. The currently most widely used and accepted definition is:

> 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. 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.
>
> (Lyon et al., 2003, p. 2)

1.5 Causes of Dyslexia
Similar to the conflicting definitions, there are many proposed causes.

1.5.1 Biological causes of dyslexia:
Many researchers believe that dyslexia has a biological origin (Snowling, 1987). Samuel Orton, as previously stated, defined dyslexia as neurological disorder. Since then, many researchers investigated the link between dyslexia and neurobiology.

- *Brain structure:* Velluntino et al., (2004) claimed that dyslexic children exhibited uncharacteristic symmetries in the left and right hemispheres of their brains. The left hemisphere of the non-dyslexics is larger than the right one. AS the left hemisphere is related to language functioning, the symmetry of both hemispheres is regarded as partial cause to reading problems that may be attributed to language deficiencies in dyslexic children. Both anatomical magnetic resonance imaging (aMRI) and post-mortem studies are used in order to study brain function (Vellutino et al., 2004). The criticism of this method of investigation is that such studies cannot occur on a large scale since dyslexia is not a cause of death, and therefore, the access to such brains is rather limited.

- *Brain function:* There is massive evidence that the principal disability in dyslexic children is a deficit in their language system and more specifically with phonology (Shaywitz et al., 2002). Using magnetic source imaging (MSI) studies, many differences were found in brain function, between dyslectic children and non-dyslexic ones. Mainly, differences were found in the activity of the brain in temporal and parietal areas of both hemispheres. After remediation, these differences were confirmed by changes found in the "… neutral circuits of the left hemisphere that tend to be activated in good readers" (Vellunino et al., 2004, p. 21). This is one of the supporting evidence of Shaywitz et al., (2002), who found that a dyslexic's brain reflect a failure of left hemisphere posterior brain system functioning.

- *Cerebellum:* As some researchers attribute the difficulty that dyslexics face while reading to a disruption in the posterior brain system, others attribute it to the role of the cerebellum. Studies conducted by Nicolson and Fawcett (1999) showed that children coping with dyslexia perform very poorly compared to their non-dyslexic children on activities that require cerebellar processing. Dyslexic children experience difficulties with eye movements and 'inner speech'; areas that the cerebellum is responsible for. This can explain why dyslexics perform so poorly, not only in tasks related to reading, spelling and language acquisition, but also in tasks that test sensorimotor skills.

- *Genetic studies:* Heritability is the final area for the advocators of the biological model. Previous studies conducted by some researchers like Orton and Hallgren (Van der Leij, De Jong &Rijswik-Prins, 2001) showed that dyslexia has a strong genetic link. Vellutino et al. (2004, p. 21) reported that the risk of dyslexia is eight times higher in children where there is a parental history of reading difficulties. Genetic evidence is possibly the most convincing argument in favour of a biological cause, as studies carried on monozygotic and dizygotic twins showed concordance rates of above 80% and below 50% respectively. Although one can argue the influence if environmental factors in studies using twins, the concordance rates are way too high to deny a genetic link (Vellutino et al., 2004). Molecular evidence from DNA analyses suggesting particular chromosomes linked to dyslexia support the genetic evidence. (Olson, 2002).

1.5.2 Cognitive causes:

As some researchers propose a biological cause for dyslexia, others claim that dyslexia is caused by a cognitive deficit. Cognitive deficit had been also criticised. Snowling (2001) argued that it is

quite difficult to determine whether the deficit is a cause of reading problems, or a consequence, but the wide amount of empirical support they have gained cannot be denied. Many possible causes may stand behind dyslexia at a cognitive level, such as visual deficits, language' based deficits, and auditory deficits (Velluntino et al., 2004).

- *Visual deficit:* During 1970s and 1980s, the most influential theories implied deficits in the visual system. This group of theories claimed that the cause of dyslexia was due to poor visual perception, and deficits in visual memory (Velluntino et al., 2004). To some researchers, reading disabilities are caused by visual tracking problems linked to oculomotor deficiencies (Coltheart& Jackson, 1998; Vellutino et al., 2004). This theory related dyslexia to the inability of visually tracking words and word patterns which are necessary for effective reading ability. Due to the lack of empirical support, these theories received much criticism, although they were very influential. (Vellutino et al., 2004). Other researchers discredited these theories, since they found no particular differences in eye movements between poor and normal readers on visual tracking (Vellutino et al., 2004).

- *Language-based deficit:*A number of language-based hypothesis exists and that attempts to explain dyslexia.'Phonological deficit hypothesis' of Snowling (1987) remains the most widely known theory of all cognitive theories that try to explain dyslexia to date. The 'Phonological deficit hypothesis' refers to weaknesses in the way an in the way an individual codes sounds (phonics). Phonological coding is "the ability to use speech codes to represent information in the form of words and parts of words" (p. 12), and it is widely accepted that weak phonological skills are the causes behind dyslexia (Vellutino et al., 2004). Poor phonological awareness (low level of oral skills) leads to difficulties in processing information in the working memory, a deficit in rapid naming skills, difficulties in name storage and retrieval (short term working memory), word identification, fluency in reading and word spelling. These processes have been referred to as key areas that separate dyslexic children from non-dyslexic ones (Coltheart& Jackson, 1998; Snowling, 2001; Van der Leij et al., 2001; Vellutino et al., 2004). Griffiths and Snowling (2202) supported this as they found that difficulties in phonological awareness and skill acquisition in alphabetic coding. They are thought to be caused by weak phonological coding characterised by poor phonological representations.

There are overwhelming evidence that support the phonological deficit hypothesis as the cause behind dyslexia. For instance, studies carried out by Vellutino et al., (2004) showed that successful instruction in the remediation of dyslexic characteristics, reading and spelling. The hypothesis, henceforth, enjoys much support since it accounts for reading related problems that respond well to direct remediation (Nicolson &Fawcett, 1999). Just like any other theory that is strongly supported, the phonological deficit hypothesis is not left without critics. The crucial argument is that the characteristics of dyslexia, such as clumsiness, poor handwriting, forgetfulness and distractibility, are signs of poor motor skills rather than poor phonological skills (Nicolson & Fawcett, 1999).

- *Auditory deficit:* As many cognitive theories are in favour of the phonological deficit since it is the dominant cause of dyslexia, others suggest auditory deficit as the principle cause (Heiervang, Stevenson &Hugdahl, 2002). In order to explain the reading disability, some researchers (e.g. Fitch, Miller&Tallal, 1987) proposed an auditory processing deficit hypothesis. The former hypothesis is also known as the temporal processing, or temporal perception hypothesis. This latter states that there is a deficit in the neural system that is responsible for the processing of stimuli which have a short duration and appear in rapid succession (Heiervang et al., 2002). This hypothesis was criticised on the basis that it cannot explain dyslexic characteristics like forgetfulness, clumsiness and distractibility.

1.6 Evaluating Dyslexia

The term 'evaluating' is the most appropriate one to use since it covers all aspects of information gathering, testing, screening, diagnosis, documentation and intervention planning (International Dyslexia Association, 2008). Gathering information from both parents and teachers (or significant others), conducting tests and then devising intervention strategies to remediate areas of weakness are all involved in the process of evaluation (International Dyslexia Association, 2008). There are three main components of the evaluation process, according the International Dyslexia Association:

Identification, intervention planning and documentation. Identification is related to identifying the source of the problem; intervention planning involves the steps needed to be taken for effective remediation; and documentation includes a history of intervention that is important for obtaining special concessions (e.g. spelling dispensations), modification in the classroom (e.g. note-taking

on a laptop as opposed to writing) and access to special schools (International Dyslexia Association, 2008).

The International Dyslexia Association (2008) stated that an effective evaluation process should include the following specific components:

- *Information gathering:* determines the cognitive strengths and weaknesses of the individual. Evidence of delay usually means the child is at-risk for reading problems.

- *Intelligence:* IQ tests were considered as a very important component of the diagnostic assessment for dyslexia. Researchers state that dyslexic children are individuals who tend to exhibit average to above average intelligence but poor academic achievement (Vellutino et al., 2004). The main "criterion of dyslexia is a large discrepancy between the actual and expected levels of achievement in reading and spelling, given the child's age and intelligence." (Singer, 2008, p. 318). The diagnosis of dyslexia, thus, involves formal testing of intellectual quotient (IQ) and language-based skills, such as fast naming items, phonemic awareness and word identification (International Dyslexia Association, 2008; Snowling, 1987). However, actual regulations no longer require such testing since intelligence is not a predictor of language problems. Not to mention that IQ tests are not the only way of measuring intellectual ability, it may also be measured by academic success (International Dyslexia Association, 2008).

- *Oral language skills:* are the ability to listen to, and understand speech, and to express thoughts through speech. Oral skills include low level language skills, for instance, recognising sound. It also comprises higher lever skills like written expression of thought. Dyslexic children are thought of to have strong high level language skills, but poor low level language skills (International Dyslexia Association, 2008). This leads to think that dyslexics struggle to learn to read and spell using the sound system of a language, i.e. phonetics.

- *Word recognition:* refers to the ability words in print, and is often know as word reading or word identification. Children coping with dyslexia are usually accurate in reading, yet they are quite slow readers. In fact, both accuracy and fluency (speed of word reading) are important in understanding what is being read (International Dyslexia Association, 2008).

- *Decoding:* is about the ability to read unfamiliar words and make sense of them by 'chunking' or spelling patterns. A test of decoding turns around nonsense words that force children to decode unfamiliar words rather than depend on memory of words already known to them (International Dyslexia Association, 2008).

- *Spelling:* assesses the child's ability to spell individual words from memory. It is often the most severe weakness that dyslexics have to face, and the most difficult to remedy (International Dyslexia Association, 2008).

- *Phonological processing:* is the skill that children use in order to decode adult speech. It is, in fact, considered as a low level language skill that neglects the decoding of meaning. Dyslexic children generally face difficulties identifying, pronouncing or recalling sounds (International Dyslexia Association, 2008).

- *Fluency skills:* is the rapidity by which the individual names letters and words. It is, however, one of the best predictors of reading problems (International Dyslexia Association, 2008).

- *Reading comprehension:* Because of their difficulty to decode printed words, children coping with dyslexia usually score lower on reading comprehension tests than on listening comprehension (International Dyslexia Association, 2008).

- *Vocabulary knowledge:* Dyslexic children are known to have very poor vocabulary development, as they do not often read because they find it tiring and exhaustive. In addition, their vocabulary acquisition is usually affected by their difficulty with memory and ability to learn the meaning of words (International Dyslexia Association, 2008).

When conducting an evaluation on dyslexia, it is important to remember that there are other potential factors such as age, socioeconomics, emotional adjustment, current learning environment and previous instructions. They all should be ruled out as a possible cause of reading disability.

The considerations that follow should be taken into consideration when evaluating suspected dyslexia in a child, as an initial evaluation must absolutely be made since poor readers may also fit the profile of dyslexics. It is important that the planning of intervention should provide detailed instructions, outlining how very specific gaps and weaknesses would be met (International Dyslexia Association, 2008).

1.7 Characteristics of Dyslexia.

Dyslexia is known to be unique to each individual, though most dyslexics display difficulties in the areas that follow:

- *Word retrieval.*
- *Short term memory.*
- *Rapid naming.*
- *Reading.*
- *Spelling.*
- *Processing information.*
- *Organization.*
- *Coordination.* (Claasens, 2007).

1.8 Intervention

Researchers assume that intervention is of crucial importance when done at time (Gersons-Wolfsensberger&Ruijssenaars, 1997). This view of 'effective instruction' gained much support from the International Dyslexia Association (2008) as it reported that early identification and evaluation is fateful for the success of the dyslexic pupils in school and in daily life. It is highly recommended that after evaluation, a structured programme of remediation must be developed by well-trained personnel (International Dyslexia Association, 2008). Intervention do not only comprise specific language-based skill activities, it also includes accommodations, concessions and special modifications for dyslexic learners. Accommodations refer to aspects like extra time and the aid of scribe in examinations, the possibility to use a laptop with a spell-check option and taped tests. Concessions, on the other hand, denote the granting or relaxation of rules like in the case of when a learner would not be penalised in a test for spelling mistakes. An example of modification can be attested in allowing a student to take an oral exam rather than a written one. Intervention may also involve dealing with confidence issued, low self-esteem, anxiety and other related difficulties that may be faced (International Dyslexia Association, 2008).

Dyslexia is considered to be hereditary and is inherited within families. "It is now well established that dyslexia is a neurological disorder with a genetic origin, which is currently being investigated" (Ramus, et al 2003, p. 841). Dyslexic parents are likely to have dyslexic children (IDA, 2012; Shaywitz&Shaywitz, 2004; Ramus, et al 2003). Given that their parents cope with

dyslexia, a child is at fifty percent risk at developing reading difficulties (Vellutino, Flenowling, & Scanlon, 2004). However, children coping with dyslexia can improve their state. They can improve their reading skills if early intervention occurs (IDA, 2012; Shaywitz&Shaywitz, 2004). With proper help, many people coping with dyslexia can learn to read and write well (Bishop & League, 2006; Wadlington&Wadlington, 2005; Schatschneider&Torgesen, 2004; IDA, 2012). Several studies e.g. Scarborough, (1990); Snowling, Gallagher & Frith, (2003), show that children who are diagnosed with dyslexia at eight years of age, had difficulties in letter recognition ability at around 4-5 years of age. The phoneme awareness develops at around age 5-6 years (Snowling et al., 2011). Findings indicate that children who are at risk of dyslexia can be identified earlier than the age of eight years. Identification could happen by "simple tests of letter knowledge and phoneme awareness at the beginnings of reading" (Ibid. p.158). Such examinations might provide a good indication of children risk of dyslexia.

Early identification and intervention could be of vital importance in helping people with dyslexia succeed in school and life (Bishop & League, 2006; Wadlington&Wadlington, 2005; Schatschneider&Torgesen, 2004; IDA, 2012). The ambition is for early identification of dyslexia "so that intervention can be put in place to prevent or limit reading difficulty" (Snowling et al., 2011, p. 158). According to Futch& Fuchs, (2006) this way of approaching the problem is more effective than "writing for children to fail in their reading before a 'diagnosis' of dyslexia can be made". (Snowling et al., 2011, p. 158). This indicates that an early intervention is a crucial factor in improving academic achievement and well-being in their future life.

The fact that teachers (and may be other significant educational personnel) are extremely important role players in successful identification, assessment and effective of dyslexia cannot be denied. Having, thus, a suitable level of teacher awareness of dyslexia is a paramount concern.

1.9 Misunderstandings of Dyslexia

This part of the research focuses on misunderstandings and misconceptions concerned with dyslexia, especially among teachers. Numerous studies concerning teachers' awareness of learning disabilities in general were done, but there is a lack of research concerning the needs of dyslexic children. One of the main research works that concentrates on dyslexia and teachers' awareness of it is that of Wadlington&Wadlington (2005), "What Educators Really Believe about Dyslexia".

Wadlington&Wadlington (2005) conducted a study in which they compared the perception and knowledge of dyslexia among 250 participants at a southern regional university and faculty members in US. Their study included various categories of educators such as school administrators, elementary general teachers, university faculty teachers, special education teachers, secondary general teachers and speech therapists. They developed a 30 item survey, which they named as Dyslexia Belief Index (DBI). In their study, Wadlington&Wadlington (2005) found that the educators had insufficient knowledge concerning dyslexia, and most of them misunderstood the concept of dyslexia. According to their findings, clear misconception was found in most of the educators, Wadlington&Wadlington (2005) determined that there is a need of handing out more information and trainings to the educators concerning this reading specific learning disability, named "dyslexia".

Another research that points the importance of teachers' awareness and knowledge concerning dyslexic children is the project of Ashburn & Snow, (2011) "Dyslexia: Awareness and Intervention in the Classroom". The project held in California, Sacramento, was created for elementary, secondary and special education teachers. These two authors created the project, and its goal was to "provide teachers with the information needed about dyslexia: what it is, risks factors for it, prevalence, co-morbid conditions, and early identification" (Ashburn & Snow, 2011). A 4 hour training workshop was prepared manuals, handouts, slides, and presenter notes, which could be presented by school psychologists. It is stated, in their literature review, that teachers have misunderstandings about dyslexia. As a result, they created this project, with the aim to give the teachers a better perception of dyslexia.

The study of Washburn et al., (2011), "Teacher Knowledge of Basic Language Concepts and Dyslexia", is another research work with a purpose of identifying teachers' knowledge about different language concepts and dyslexia. The participants in this study were elementary school teachers. The participants were collected from two data groups. Group one consisted of 99 participants and was from 10 different schools of the district in a Midwestern state in the United Stated, group two, consisted of 86 participants from an urban school district in Southwest United States. The researchers, in this study, found that the teachers carried a common misconception of what dyslexia. They were confusing dyslexia with a "visual processing deficit rather than phonological processing deficit" (Washburn et al., 2011, p. 165).

As stated previously, there is a lack of research works regarding the knowledge of dyslexia among teachers, particularly in Algeria. Since the focus of this dissertation is, indeed, on the awareness to the special needs of dyslexic children in Algeria, the following part contains a description of the Algerian's situation concerning children with learning disabilities.

This above part is a review of the diverse definitions of learning disabilities and dyslexia, prevalence of learning disabilities, caused of dyslexia, how dyslexia is assessed,misconceptions about dyslexia, et cetera.

The next part comprised an overview of teachers' awareness of dyslexia, the reasons behind the lack of awareness in general, and the actual status of teachers' level of awareness in Algeria.

1.10 The Significance of Teachers' Awareness about Dyslexia

As it is commonly known, teachers' awareness and management of dyslexia is of supreme importance in the academic, social, as well as emotional success of a learner. Under the light of what researchers have reported, however, education teachers have been found to lack understanding of what this concept means, or is about. (Hayes, 2000, Karande et al., 2009; Kataoka et al., 2004). According to a study conducted in Japan by the Ministry of Education, some teachers were unsure if their learners had dyslexia or not (Kataoka et al., 2004).

1.10.1 Situation of Teachers' Awareness about Dyslexia

When it comes to helping learners surmount their learning difficulties in general, and dyslexia in specific, the regular classroom teacher can be a positive factor. Studies, however, have shown that this is not necessarily the case if teachers have no awareness of the child's disability (Hayes, 2000; Kataoka et al., 2004).Teachers were convinced (and still are) that underachievement was either due to the lack of intelligence or laziness. As a matter of fact, many teachers affirm that any kid can, indeed, learn and succeed if he is motivated enough (Hayes, 2000). This very exact kind of ignorance can be fatal to the learning disabled student'sacademic success (Hayes, 2000). The lack of awareness implies that intervention is delayed, or never occurs at all. Even if teachers are somehow aware, they say they feel helpless since they suppose they do not have the necessary skills so they can help. Thus, they feel a kind of powerlessness and helplessness, which has repercussions on the working relationship between the teacher and his student. Some teachers

have low expectations of the child, other tend to blame the child's lack of progress on their own lack of teaching skills, while others have been reported to insult and even physically punish learners who suffer from learning disabilities (Karande et al., 2009, Kataoka et al., 2004). This can only mean that the learning-disabled students can be seriously disadvantaged.

Dyslexia is still a confusing term for most teachers, as reported by Wadlington et al., (2009). Nevertheless, teachers usually find it hard to differentiate between learners with dyslexia and slow learners (Wadlington et al., 1996). It is quite regrettable that this lack of teachers' understanding has such negative consequences for the dyslexics. The fact that, as opposed to a minority that can be found in special schools or special needs classes, most children with dyslexia can go to mainstream schools is unfortunate. Thus, teachers may feel overwhelmed trying to deal with dyslexics at the expense of others (Wadlington et al., 1996).

As stated by Wadlington and Wadlington (2005) the way learners see themselves can be negatively affected by teachers' attitudes, since some can consider themselves stupid or inferior, and this, consequently, affect their academic and personal life. Learners, at first, experience shame due to their mow tests grades, then suffer from depression and anxiety due to constant series of failure; this is known under the name of "snowball effect". Teachers too may experience anxieties about dyslexia in various ways. They may be demotivated to know more about dyslexia, and this lack of motivation could be due to the fact that schools do not give enough continued support to teachers, once they are in service (Wadlington&Wadlington, 2005). They may fail at modifying or adapting work to accommodate the needs of the dyslexics. Furthermore, teachers often do not give parents the benefit of the doubt of knowing their child's lack of abilities, as they believe that parents are not 'experts' to know best practices for their child (Robuck, 2007).

There are many reasons, however, outside the realm of the teachers' attitude that could account for this lack of awareness, such as inaccessibility to relevant information, inadequate pre-service training or lack of continued professional development. Still, there are so many teachers who are able to do the best they can in all situations, that can be difficult and challenging (Wadlington et al,. 1996).

The teacher, most of the time, is faced to various challenges to provide a truly exclusive classroom experience for all learners. Thus, the challenge is not only to provide appropriate learning materials or use appropriate assessment strategies, but to be held accountable for the educational

success of all the learners in their care. Teachers in middle schools are obliged to overcome daily pressure and stress in order to ensure the success of all learners in the classroom, plus the extra burdens of teaching those with dyslexia (Peer & Reid, 2011).

1.10.2 Reasons behind Teachers' Lack of Awareness about Dyslexia

Indeed, there are many reasons due to which mainstream teachers lack awareness, regarding the identification and management of dyslexia. The reason why teacher do not acknowledge dyslexia as a real disability is due the lack of teacher training in the field of dyslexia (Wadlington&Wadington, 2005). So many parents report that several teachers refuse to accept the diagnosis of dyslexia, and they believe it is principally due to ignorance of the phenomenon. As mentioned earlier, studies state that there are numerous misconceptions concerning dyslexia (Wadlington&Wadlington, 2005). As a matter of fact, many believe that dyslexia only affects individuals during their schooling career, but only few know that it is, indeed, a lifelong disability.

Wadlington, and Wadlington (2005) argued that the main reason for teachers' lack of awareness is the role played by school management and/or local authorities, as they claim that school management does not play an important enough role in teacher awareness of dyslexia. To ensure that teachers are well-equipped with the strategies of identification and management of the learning disability is part of management's duty (Wadlington&Wadlington, 2005).

The third reason for lack of awareness is related to accountability. Generally, teachers think that the responsibility of special education is on all teachers, not just the one of the special needs department within a school (Hayes, 2000). It is of paramount importance for learners that teachers regard themselves as special needs teachers, so that they can provide all learners with quality education (Hayes, 2000). The fact that special needs teachers show a more positive attitude towards learning disabilities allows dyslexic learners a better chance of success in their classrooms. Therefore, teachers' awareness is crucial to the success of the dyslexics any of the teachers report a higher level of stress when they lack understanding and compassion (Karande et al,. 2009).

As for the most important reasons for lack of awareness is the lack of teacher training in the field of dyslexia, since a study by Carroll, Forlin and Jobling (2003) proves that there is a serious lack of pre-service and in-service training in this area.

1.11.Conclusion

The first chapter has outlined the most important facts about learning disabilities with a particular focus on dyslexia. It has therefore defined this phenomenon tracing its causes as well as it consequences particularly in educational settings. The objective has been to have an ample idea on the implications of dyslexia and the way it is dealt with. This knowledge on dyslexia has been provided to set the foundation of the next step within the present research which is practical in nature.

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CHAPTER 2

Data Collection and Analysis

Chapter 2: Data Collection and Analysis

2.1Introduction

In this section, the emphasis is centred on displaying the lack of awareness about dyslexia among middle school teachers. It also seeks to gauge their ability in identifying dyslexic pupils and the way they deal with them.

This practical part of research focuses on the investigation of awareness of middle school teachers concerning dyslexia. The purpose of this chapter is to figure out if the teachers are aware of the term dyslexia, and understand their perception about dyslexia and children with dyslexia.

2.2 Characteristics for Sample Selection

In conducting the present research work, a multi-step approach was used in order to identify children with dyslexia, as it comes with many forms and no two children will present the same set of severity of symptoms. Most dyslexics exhibit about 10 of the following traits and behaviours. These characteristics can vary from day to day or minute to minute. The most consistent thing about dyslexics is their inconsistency (based on information taken from IDA fact sheets).

General

- Appears bright, highly intelligent, and articulate but unable to read, write, or spell.
- Labelled lazy, dumb, careless, immature, or "not trying hard enough".
- Isn't "bad enough" to be helped in school setting.
- High in IQ, yet may not test well academically; tests well orally, but not written.
- Feels dumb, has poor self-esteem; easily frustrated about school reading or testing.
- Seems to zone out or daydream often, gets lost easily or loses track of time.

Vision, Reading, and Spelling

- Complains of dizziness, headaches or stomach aches while reading.
- Confused by letters, numbers, words, sequences, or verbal explanations.
- Reading and writing shows repetitions, additions (e.g. whent instead of went), transpositions, omissions (e.g. wich instead of which), substitutions (e.g. showt instead of

showed), and reversals in letters, numbers and/or words (e.g. was instead of saw/ 24 instead of 42).

- Mixing up the sequences of letters (e.g. hlep instead of help)
- Complains of feeling or seeing non-existent movement while reading, writing or coping.
- Seems to have difficulty with visions yet eyes exams do not reveal a problem.
- Extremely keen sighted and observant.
- Reads and rereads with little comprehension.
- Immediately forgets what has just been read.
- Slower reading speed.
- Missing out words or skipping lines as they read.
- Spells words as they sound (e.g. wont instead of want)

Hearing and Speech:

- Has extended hearing; hears things that are not said or apparent to others.
- Easily distracted by sounds.
- Difficulty putting thoughts into words
- Leaves sentences incomplete.
- Mispronounces long words.
- Stutters under stress.

Writing and Motor Skills:

- Troubles with writing or copying.
- Pencil grip is unusual.
- Handwriting varies or is illegible.
- Can be ambidextrous, and often confuses left/right, over/under.

Math and Time Management:

- Has difficulty telling time, managing time, or being on time.
- Computing math shows dependence on finger counting and other tricks.

- Can count, but has difficulties counting objects and dealing with money.

Behaviour, Health, Development, and personality:

- Extremely disordered.

- Can be class clown, trouble maker, or too quiet.

- Mistakes and symptoms increase dramatically with confusing, time pressure, emotional stress, or poor health.

2.3 The Sample

According to Durrheim (2006), it is generally impossible and/or impractical to study all the cases in a population, and therefore the sample that represents the population is selected for study. The population studied in this research was teachers in middle schools in Tlemcen, and the sample was drawn from this population.

The sample comprised 34 teachers that agreed to participate in the study. Teachers at all 5 schools were invited to participate in the study but only 50 agreed, and therefor received the questionnaire. Since 34 teachers completed and returned the questionnaire, the study had a response rate of 68%.

A questionnaire and an observation were conducted to measure the following variable:

- Teachers' knowledge of dyslexia.

- Teachers' ability to identify dyslexia in their classrooms.

- Teachers' ability to manage dyslexia in their classrooms.

2.4 Research Design

"A research design is a strategic framework for action that serves as a bridge between research questions and the excursion or implementation of the research." (Terre Blanche &Durrheim, 1999, p.29). Based on the research objectives and the background literature, this study achieved this framework by electing to use a quantitative research design. Quantitative research is, in its simplest form, concerned with numbers and anything measurable. Quantitative research is also concerned with establishing a relationship between two or more variables (correlation) (Hopkings, 2000). For example, in this study, the research sought to examine the relationship between the level of teachers' awareness and ability to manage dyslexia in their classroom.

In qualitative research, the survey is an appropriate measuring instrument used to elicit this type of information. A survey questionnaire was used for the purpose of this study, as well as a classroom observation. A questionnaire provides information about participants' feelings, knowledge and attitudes. According to Mulumba (2008), it can be used to collect data from large numbers of participants over a relatively short period of time. The survey questionnaire was well suited to this study as the research was trying to measure teachers' knowledge and management of dyslexia.

According to De Vos, Strydom, Fouche&Delport (2005) the purpose of the questionnaire is to obtain facts and opinions from people who are generally informed about a particular phenomenon (in this case, awareness of dyslexia). A questionnaire is deemed as the most appropriate measuring instrument since it assures anonymity and asks the same questions to all participants. When completing the questionnaire, participants are free of pressure that might arise when completing the questionnaire in the presence of a researcher. It is also less time consuming that interviews or tests (Elita, 2007). A criticism by many researchers is that a questionnaire with mostly close questions limits the depth of responses provided by participants and the level of honesty of responses (De Vos et al., 2005).

The strengths of quantitative research include: Precise, numerical data is provided, data analysis (using statistical software) is generally less time consuming compared to qualitative data analysis and results of quantitative research are generally independent of the research (i.e. statistical significance) .

However, weaknesses of quantitative research include results that are produced may be too general for direct application to specific contexts or individuals. For instance, results produces in this study may not be applicable to educational districts or particular schools in other provinces in Algeria. There is also the presumption with quantitative research that the researcher has extensive knowledge on the subject matter in order to pose the "right" question (Durrheim, 2006).

Likert Scales. Questionnaires or surveys generally use Likert-type scales. These scales are commonly used to measure attitudes, where respondents specify their degree of agreement with each item (De Vos et al., 2005). It is an ordered scale that usually contains five responses options: Strongly Agree, Agree, Unsure, Disagree and Strongly Disagree. Each option is scored 1,2,3,4 and 5 respectively. Reverse scored items are scored 5,4,3,2 and 1, respectively. This scale is also

referred to as summative scale, as the result of a questionnaire is generally achieved by summing numerical responses (De Vos et al., 2005). In this study, a summative style five-point scale with reverse scored items was used to assess participants' level of agreement or disagreement with statements in sections C to D (34 to 68).

2.5 Ethical Consideration.

When conducting research, careful attention should be paid to the welfare of the participants. Researchers are bound to protect the rights of participants by following the ethical principles of research. The following ethical guidelines were adhered to in this study:

Confidentiality and anonymity. Confidentiality is an undertaking by the researcher to protect the anonymity of the participants (Terre Blanche, Durrheim& Painter, 2006). Confidentiality and anonymity were ensured in this study by the fact that participants were not requested to write their names on the questionnaire.

Protection from harm. According to the American Psychological Association's (APA) ethical guidelines, it is of utmost importance that participants leave the research experience in the same psychological and physical state in which they entered (Howitt& Cramer, 2008). This study presented no psychological or physical danger to any of the participants.

Deception, informed consent and right to withdraw. There were no need for deception in this study as the participants were fully informed of the aim of the study in order to provide the most accurate responses possible. The aim of the study was clearly stated on the questionnaire. This information preceded the questionnaire and gave the participants the opportunity to make an informed decision as to whether they wanted to participate or not. The school's contact person informed participants that they had the right to withdraw from the study at any time or the right to withdraw their questionnaire after having completed it.

2.6 Research Instruments

As it is mentioned previously, two different instruments are used for the sake of collecting data, namely questionnaire and classroom observation.

2.6.1 Questionnaire

After undertaking a literature review of teacher awareness and dyslexia, an original questionnaire based on theory and research was designed by the researcher. Items on the questionnaire were

based specifically on information taken from IDA fact sheets and adapted to suit the purpose of the study. The aim of the questionnaire was to evaluate the level of teachers' knowledge and awareness of dyslexia in middle schools in Tlemcen.

The questionnaire is divided into five sections: Demographic information, level of knowledge of dyslexia, ability to identify dyslexic learners, and management of dyslexic learners.

SECTION A: Demographic Information. This section that consists of 15 items allowed the researcher to make comparisons between, among others:

> ➢ Gender and teacher's awareness of dyslexia.
> ➢ Age group and teacher's awareness of dyslexia.
> ➢ Level of teaching training and teacher's awareness of dyslexia.
> ➢ Educational history and teacher's awareness of dyslexia.
> ➢ Employment history and teacher's awareness of dyslexia.
> ➢ Level of education and teacher's awareness of dyslexia.

Items, which were pre-coded, produced nominal data. All items are close-ended questions, except items5 and 6 which are open-ended questions. Items are scored in categories starting at number one; items labelled 'other' are assigned a value of 8 or 88, depending on whether they are single digit or double digit values respectively.

SECTION B: Measuring Teacher's Knowledge of Dyslexia. This section, which consists of 23 items (items 11-33) aimed at taping teachers' knowledge of dyslexia across the categories of gender, age, level of education, year of teaching qualification, training instruction, years' experience and educational district. All the items are factual statements about dyslexia, expect for items number 16, 26 and 33, which are fictional statements (myths or inaccuracies about dyslexia). Participants had to state whether each statement was true or false, or whether they were unsure about the statement. A value of 1 was assigned to the response 'true' to all items except 16, 26 and 33, which were coded 2 since they were 'false' responses. Unsure responses were assigned a value of 3. The possible range of scores is 23-69. A high score (i.e. 43 to 69) indicates a low level of knowledge of dyslexia and a low score (i.e. 23 to 29) indicates a good understanding of dyslexia.

SECTION C: Measuring Teachers' Ability to Identify Dyslexic Learners in the Classroom. This section, that consists of three items (34-36), aimed at tapping teachers' beliefs regarding their ability to identify dyslexic learners in their classroom. All items are summative-style items. The minimum score for items 34-36 is 0 and the maximum score 15. No items were reverse scored in this section. Individual items (34-36) were analysed by totalling an overall score for all the items. This analysis allowed the researcher to determine how many respondents believed they could or could not identify dyslexia. An overall high score (i.e. 12-15) indicates that the teacher has the ability to identify dyslexia learners in their classroom, a score of 7-11 indicates average ability to identify dyslexic characteristics, and an overall low score (i.e. 0-6) indicated they were unable to identify dyslexic characteristics.

SECTION D: Measuring Teachers' Ability to ManageDyslexic Learners in the Classroom. Section D measured teachers' ability to manage dyslexic learners in their classroom. This section consists of 28 items: Items 37-64. Item number 37, which was pre-coded, produced nominal data. Only participants who answered 'yes' to item number 37 (*Are you aware of any dyslexic learners in your class?)* were required to answer the remaining 27 items: Items 38-64. Individual items were analysed allowing the researcher to determine how many respondents believed they could/could not manage dyslexia in their classrooms. In addition, a total score for each respondent was calculated by adding the values of the answered to all the questions. The objective was to calculate an overall score for all the items combined. An overall high score (i.e. 96-120) indicated that he or she is very capable of managing dyslexic learners in their classrooms, a score of 61-95 indicated an adequate ability to manage dyslexia in the classroom, while an overall low score (i.e. 0-60) indicates that teachers are unable to manage dyslexia in their classrooms. Negative statements (items 51, 54 and 64) were reverse scored where 'strongly disagree' was assigned a value of 5 and 'strongly agree' assigned a value of 1.

2.6.2 Classroom Observation

The second instrument used to collect data was the classroom observation. It is considered as a qualitative research strategy for gathering information from natural situations. L. Cohen reported that "The distinctive feature of observation as a research process is that it offers an investigator the opportunity to gather live data from naturally occurring social situations".

According to Umar (2013), there are two well-known kinds of classroom observation, namely:

1. Participant / non participant observation: the researcher can be a member who takes part in the observed situation, or he can observe the activity without interacting.

2. Structured / unstructured observation: the investigator can design a plan in advance to make his observation structured, or he can just take notes about the observed situation.

In this research work, the researcher used non participant and structured observation during the whole sessions that took place in the classrooms. This particular tool was used in order to vividly observe the way with which the teachers behave with dyslexic children, their knowledge about dyslexia, and their ability to spot dyslexic children.

The observation is divided into three sections: Knowledge about dyslexia, ability to identify dyslexia, and ability to manage dyslexia. The first section consists of four items that aimed to measure teachers' knowledge about the term dyslexia. The eight items in the second section are dedicated to assess teacher's ability to identify dyslexia among their pupils. As for the third section, it is composed of eight items and is devoted to estimate teachers' ability to manage dyslexia.

2.7 Data Collection Procedure

Permission was granted by the English Department of Tlemcen to conduct the study in middle schools. Teachers had the choice of completing the questionnaire either in print form or electronically.

Data were collected in the following two ways:

a. Teachers that completed the questionnaire in print form (*N=16, i.e. 47%)* followed the procedure outlined below:

Teachers were asked whether they wanted to participate in the study. Teachers were given the questionnaire and were asked to complete it according to their calendar week. In this way, they could complete it in their own time and at their own place. It was hoped that they would complete it as accurately and truthfully as possible, since they were not bound by ant tight time constraints. Those who completed and returned the questionnaire became part of the sample (*N*=34, i.e. 68%). Dates and times for delivery and collection of the questionnaires were agreed upon by both the researcher and school contact person.

The researcher, then, asked the teachers (*N*=10, i.e. 62%) for permission in order to collect data through the use of observation.

b. Teachers that completed the questionnaire electronically (*N*=18, i.e. 53%) followed the procedure below:

The researcher uploaded the questionnaire on a Facebook group. Participants who agreed to participate in the study received the link to the website, giving them access to the questionnaire. The researcher also provided the participants with details of how to complete the questionnaire online. The results of the completed questionnaire were captured immediately. This method of collecting data allowed the researcher to reach participants in the greater Tlemcen region. This way of completing the questionnaire, however, did not prove a popular choice amongst, even when they had access to internet.

2.8 Data Analysis

De Vos et al. (2005) argued that quantitative data analysis provides an interpretation for answers elicited from a study. Statistical methods, which are used to analyse quantitative data, are mainly concerned with categorizing, ordering and summarising data into a form which can be interpreted (Terre Blanche &Durrheim, 1999). In other words, the researcher measures the variables and then statistically transforms the data in order to describe them, which enables the researcher to make inferences about the population based on the sample studied. Once the data collected, the researcher begins the process of analysis by coding and entering the data.

Qualitative date analysis, however, is the explanation, the understanding and the interpretation of situations and people under investigation. In this context, Cohen et al., reported: "Qualitative data analysis involves organising, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities". (Cohen et al, 2007: 461).

2.8.1 Questionnaire Analysis

In order to analyse the data collected from the questionnaire given to the teachers, a number of hypotheses was put in place which were grouped in three key areas:

a. Hypotheses Relating to Teachers' Knowledge about Dyslexia.

b. Hypothesis Relating to Teachers' Ability to Identify Dyslexia.

c. Hypothesis Relating to Teachers' Ability to Manage Dyslexia.

2.8.1.1 Hypotheses Relating to Teachers' Knowledge about Dyslexia

Hypothesis 1: Teachers' knowledge about dyslexia is low. The hypothesis was supported. The answers indicated that teachers' knowledge about dyslexia, a ratio of 94 %,was either inadequate or very bad. This result is not contradictory to literature that claims that teachers have many misconceptions about dyslexia (Wadlington&Wadlington, 2005).   The following pie chart illustrates the above information:
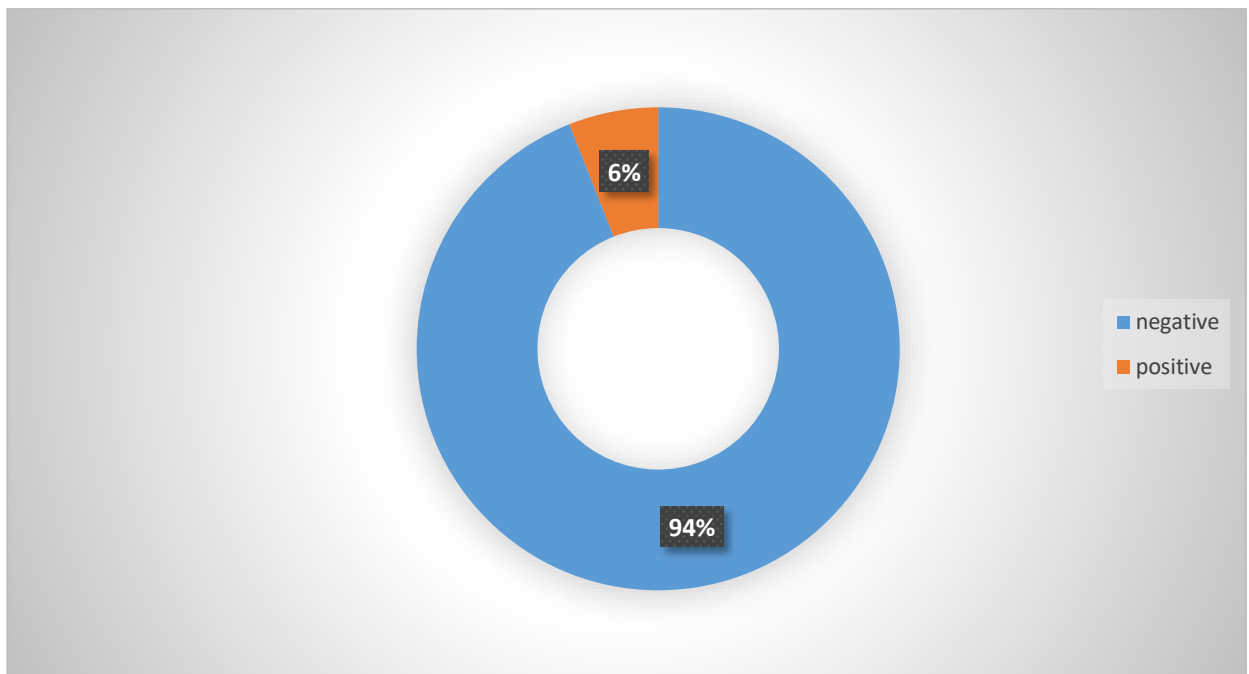

Figure 1 : Teachers' Knowledge of Dyslexia

Hypothesis 2: There is no relation between teachers' gender and their knowledge about Dyslexia. The hypothesis was supported. Knowledge of dyslexia was found to be similar, irrespective to participants' gender. Both groups showed inadequate knowledge of dyslexia. The obtained results are summarised in the following table:

Table 1: Knowlege of Dyslexia between Genders

Gender	N	Negative	Positive
Male	15	14	1
Female	19	18	1
Total	34	32	2

Hypothesis 3: There is no relation between teachers' gender and their knowledge about Dyslexia. The hypothesis was not supported. The results show no signficant difference in teachers' knwoledge of dyslexia, based on the years they have been teaching. The researcher assumed that teachers with more than 15 years experience would be more knowledgeable about dyslexia, through classroom experience,The results did no than those who recently (less than 10 years ago) joined the profession. The results did not indicate this, since the median scors for all groups indicate that teachers have poor knowledge of dyslexia, irrespective of the number of years they have been teaching. The implication is that schools should provide ongoing proffessional development in this area if teachers are to increase their awareness and management levels of dyslexia. Both groups of teachers; newly qualified and older teachers, are in need of continued trainig and support.

2.8.1.2 Hypthesis Realting to Teachers' Ability to Identify Dyslexia.

Hypothesis 4: Teachers' ability to identify dyslexia is weak. This hypothesis was supported.
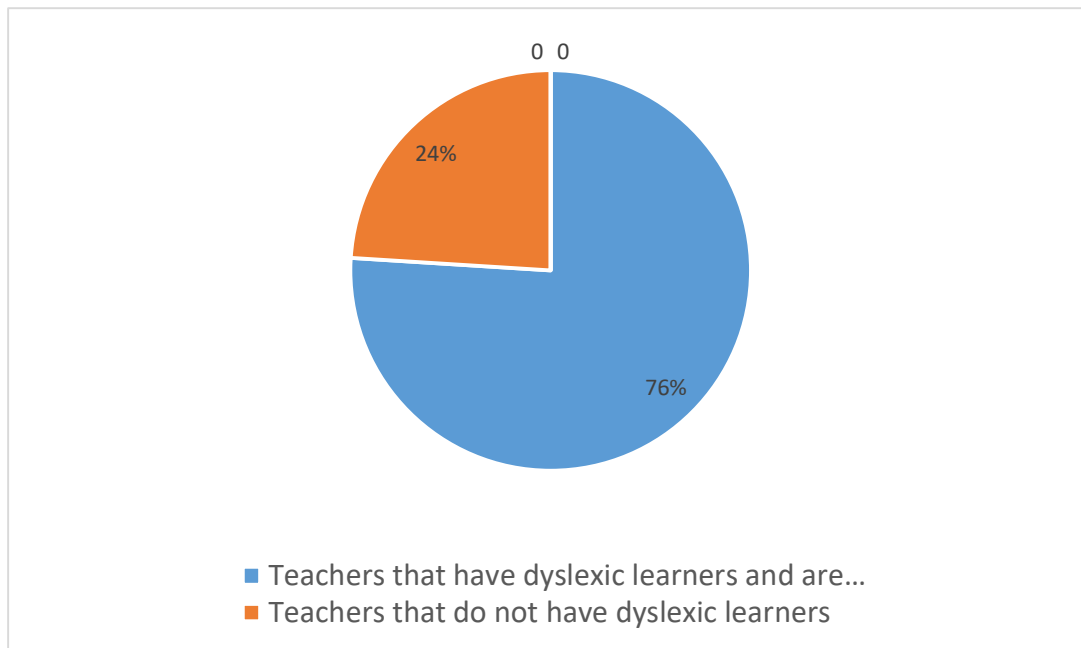
Figure 2: Teachers' Ability to Identify Dyslexia

The results above indicated that teachers' ability to identify dyslexia was either inadequate or very poor, since 76% of teachers had dyslexic children and were absolutely not aware about their presence in their classrooms. This result supports hypothesis 1 that showed teachers' knowledge of dyslexia is inadequate or very bad. It makes sense that teachers have inadequate knowledge of dyslexia then they would be unable to identify the characteristics of dyslexia. The results seem to indicate this. The results, indeed, supportcurrent literature that claims teachers are not able to identify the characteristics of dyslexia (Kirby et al., 2005)

2.8.1.3Hypothesis Relating to Teachers' Ability to Manage Dyslexia

Hypothesis 5: Teachers' ability to manage dyslexia is weak. This hypothesis was supported. The results obtained indicated that teachers' ability to manage dyslexia was either inadequate or very bad. This result supports hypothesis 1 and 4 that stated teachers' knowledge of dyslexia and ability to identify characteristics are poor. One could assume here that if teachers have inadequate knowledge of dyslexia and weak ability to identify characteristics, then they are unable to manage dyslexic learners in their classrooms. Indeed, literature shows that teachers are not able to manage dyslexia in their classroom (Kirby et al., 2005).

2.9 Observation Analysis

Observation was carried out to investigate the level of teachers' awareness about dyslexia, and to check their knowledge, ability to identify and to manage dyslexia.

The observations were carried in about ten session that were scheduled in several middle schools in Tlemcen, where teachers were observed in the way they behave with their dyslexic students, if they are aware about their presence, and if they really understand what the term "dyslexia" implies.

The results show that the overwhelming majority (90%) of the observed teachers had no knowledge of the term dyslexia. They were also unable to spot the dyslexics present in their classroom. As a result of their unawareness of dyslexia, they obviously did not know how to manage their dyslexic pupils. Only 10% of the teachers being observed that were familiar with the term dyslexia, and that tried to identify and to manage the dyslexic children in their classrooms. This finding is in line with an earlier finding that revealed that the majority of teachers have poor knowledge about dyslexia, that they are unable to identify a dyslexic child, and that they are also unable to manage them.

In the previous part of the study, the findings were presented and discussed. In this section, the purpose and aims are re-stated, the implications and limitations of the findings are discussed and explored, while suggestions for educational practise and future theoretical research are offered.

2.10 Summary of the Main Findings

The conclusion deduced from the interpretation of the results is that the majority of teachers have inadequate knowledge about Dyslexia. This in turn has put them in a dilemma as how to deal with it. This is also attributed to their unpreparedness to be immersed in coping with dyslexic pupils.

The results have also indicated that teachers were unable to identify or to manage dyslexia in their classrooms. As a matter of fact, all of the hypotheses have therefore been confirmed. This is an incentive to come up with some suggestions and recommendations to improve the state of dealing with dyslexic pupils in schools. The intention is to sensitise teachers as agents of change that this phenomenon is worth coping with as it may act as a handicap for the mental and intellectual development of children.

2.11 Implications and Recommendations

The implications of the findings are presented in three key areas: Knowledge and identification of dyslexic characteristics; in addition to management of dyslexia in the classroom. Implications include recommendations for training institutions and school management teams.

➢ ***Knowledge and identification of dyslexia.*** The findings show that, as literature report, teachers in middle schools do not have adequate knowledge of dyslexia (Hypothesis 1). They also show that teachers do not have the ability to identify dyslexic characteristics (Hypothesis 2). The implication of these findings is that if teachers do not have adequate knowledge and awareness, they are not, then, in a good position to be able, at least, to identify dyslexic characteristics or traits, or refer learners with suspected dyslexia for appropriate evaluation. The implication of this is that learners in the Tlemcen do not have the advantage of being taught by teachers who are at least knowledgeable about the disability.

➢ ***Management of dyslexia in the classroom.*** The findings show that, as the literature says, teachers in middle schools in Tlemcen do not have the ability to manage dyslexia in the classroom (Hypothesis 3). However, this result is based on the responses of the sample whose size was relatively small (*N*=34), and thus, it is not possible to generalise the findings to the wider middle schools population in Tlemcen. Nevertheless, implications are not very promising when teachers cannot manage dyslexia in the classroom. It can be assumed that dyslexic learners in middle schools in Tlemcen are not getting the necessary remediation and support they need (in the classroom) to succeed academically.

➢ ***Pre-service learning in dyslexia.*** It was found that all teachers did not receive any pre-service training in dyslexia at all. Research shows that training in learning disabilities (e.g. Dyslexia) leads to greater teacher confidence, which in turn leads to greater academic success for the dyslexic child (Chong et al., 2007). This further implies that training institutions need to invest extra resources (personnel, time and money) to ensure that all teacher trainees receive the necessary training.

A recommendation is that pre-service training in dyslexia, and other special needs education areas should be a compulsory part of pre-service training curricula; it should not be offered as an elective or optional module. Understandably, in a one-year post-graduate

training course, it is difficult to do justice to all areas of special needs education. Thus, pre-service training in special needs education should be provided in every year of the university studies.

A second recommendation is linked to the first. Pre-service training in dyslexia and other special education needs areas should be made compulsory for all subject teachers, not only language teachers. Too many non-language teachers do not acknowledge the role they have to play in the identification and management of dyslexia in the classroom (Peer and Reid, 2001). It is important that all subject teachers are equipped to deal with dyslexia as the disability is not only present in language classes. Peer and Raid (2001), who conducted research in UK, report that non-language teachers have an unrealistic expectation that the Special Needs co-ordinator and the English subject teacher are the only responsible for supporting dyslexic children.

➢ *In-service training in dyslexia.* No one of the participants reported that they received any kind of training in dyslexia. The implication is that if so many teachers teach without training, the dyslexic learner is disadvantaged because his or her teacher lay not possess the necessary awareness and skills to manage their special educational needs. The vast majority of teachers do not see the need to equip themselves with the knowledge and skills to manage dyslexia in their classrooms. The implication is that most dyslexic pupils in Algeria are taught by teachers who do not have the appropriate tools to effectively manage dyslexia; even if a management strategy is simply to know the protocol to be followed if one suspects a child of having dyslexia.

➢ *Special needs support unit.* Based on the need for continued in-service training and support, the creation of a Special Needs Support Unit in every school in the country is imperative. Government should employ learning support teachers who are qualified to support the dyslexic pupil in a more individualised structured programme; a programme that the classroom teacher cannot provide. This kind of unit would comprise a group of support staff who are responsible for the academic, social and emotional well-being of the learners.

These services should be given to every state school as part of their staff establishment.

2.12 Conclusion

This dissertation has analysed middle school teachers' awareness of dyslexia among children. Additionally, the study set out to gather information concerning their ability to spot and to manage children coping with dyslexia in their classroom, to provide a better understanding of participants' perception about dyslexia, their responsibilities, and their roles as teachers to offer equal opportunities to the needs of children coping with dyslexia. One of the significant findings of this work is that middle school teachers of Tlemcen have a clear misconception of dyslexia. The results of this study support the idea that the lack of knowledge among teachers about this term places these children at risk of being discriminated and excluded from academia and school.

Hopefully, the findings of this study make several contributions to the current literature. First, it is the only study in Tlemcen that deals with teachers' knowledge concerning dyslexia. Second, it deals with children coping with dyslexia and the possibility of getting discriminated and excluded.

The lack of literature and research studies related to the current condition of Algeria concerning teachers and children with learning disabilities is a drawback. However, this drawback proves the need for more research in this direction, which is exactly what this work is doing. Notwithstanding these limitations, the findings of this dissertation point out on a direction that middle school teachers of Tlemcen have a lack of awareness concerning dyslexia, and are unable to identify and manage dyslexic children in their classrooms.

More information on teachers' awareness of dyslexia would help to establish a greater degree of accuracy on the matter of children with dyslexia and their needs. This study open the possibility for many various future works. First, it gives space to research the middle school teachers' education system. It would be interesting to investigate how they get prepared during their studies to meet all children's needs. Second, a wider study concerning teachers' awareness concerning dyslexia in children is appropriate, including schools from rural areas. Thirds, and more importantly, a research for the conditions of children with dyslexia and their rights of inclusion in society would be more the needed, since there is a lack of research concerning children with dyslexia.

General Conclusion:

This research work was carried out to investigate teachers' awareness about dyslexia in middle schools, in Tlemcen, Algeria. It aims to gather enough information concerning their ability to identify and to manage children coping with this condition.

In order to conduct this research, three research questions were asked. The first one investigates teachers' knowledge about dyslexia. The second question asks about their ability to identify dyslexic characteristics, and the last question aims at figuring their ability to manage their dyslexic pupils in the classroom. Then, in order to investigate the mentioned research questions, three hypotheses were proposed. First, it can be said that teachers' have inadequate knowledge about dyslexia. Second, their ability to spot dyslexic children is weak. Last, the third hypothesis states that teachers' ability to manage dyslexic children in the class is poor.

This dissertation contains two chapters. The first chapter is a literature review, which addresses many essential elements to the reader concerning the notion of learning disabilities, and dyslexia in a more focused way, as it states the different causes and characteristics of the condition. It finishes with the situation of teachers' awareness about dyslexia, and all the reasons that might be behind this lack of awareness.

The second chapter is empirical. The practical work was done at different middle schools in Tlemcen, Algeria, with 34 teachers from different specialities. The first part summarises the definitions of research instruments used to collect data which are: teachers' questionnaire and classroom observation. Additionally, this part introduces the data analysis and interpretation to approve or disapprove the given hypotheses leading this study. Concerning the last section of the second chapter, the researcher tries to give some suggestions to deal of teachers' lack of awareness about learning disabilities, and dyslexia especially.

To sum up, both chapters provide a better understanding of teachers' perception about dyslexia, their responsibilities, and their roles as teachers to offer equal opportunities to the needs of children coping with dyslexia. The analysis of teachers' questionnaire and classroom observation helped a lot in answering the previous research questions, and most results gained from the participants confirm the hypotheses stated before. Therefore, findings like these would

help children with disabilities that get discriminated and excluded, since it is the only study in Tlemcen that deals with teachers' knowledge concerning dyslexia.

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Appendix A

Questionnaire

Date: January 2019

To: Participants in "Teacher Awareness of Dyslexia" Questionnaire

I am conducting a study on TEACHER AWARENESS OF DYSLEXIA IN MIDDLE SCHOOLS as part of a Masters in Linguistics. The results of this study will determine the levels of teacher awareness and management of dyslexia in middle schools.

The questionnaire should only take about 15 minutes to complete. I would greatly appreciate your response to the enclosed questionnaire. The information you provide will be kept strictly confidential and anonymity will be ensured.

Please respond to the statements below as truthfully as possible.

Your participation is voluntary and is greatly appreciated.

Yours sincerely,

HAMLI Hadjer.

Please circle the number in the appropriate box. Select only one option unless otherwise indicated.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender:

Male	Female
1	2

2. Age group:

21-30 years	31-40 years	41-50 years	51-60 years	+60 years
1	2	3	4	5

3. What is the language in which you mainly teach?

4- What is the highest level of education you have achieved?

Arabic	French	English
1	2	3

Licence	Masters	Doctorate	Other (specify)
1	2	3	4

5- Field/s of study at tertiary level:

6- What is the main subject you teach? (Write only one):

7- Number of years in the teaching profession:

Less than 1	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
1	2	3	4	5	6	7	8

8- Number of years at current place of employment:

Less than 1	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
1	2	3	4	5	6	7	8

9- How many pupils do you teach in total?

Less than 50	51-100	101-200	201-300	301-400	More than 400
1	2	3	4	5	6

10- What is the average number of pupils you teach per class?

Less than 15	16-20	21-30	31-40	41-50	51-60	More than 60
1	2	3	4	5	6	7

SECTION B: LEVEL OF KNOWLEDGE OF DYSLEXIA

Please indicate using a cross [x] whether the following statements are **True** or **False**. If you are not sure, please indicate so.

No	Statement	True [1]	False [2]	Unsure [3]

11	Dyslexia is a language-based learning disability.			
12	Students with dyslexia usually experience difficulties with spelling.			
13	Students with dyslexia usually experience difficulties with writing.			
14	Students with dyslexia usually experience difficulties with pronunciation of words.			
15	Dyslexia affects individuals throughout their lives.			
16	The exact causes of dyslexia are clear.			
17	About 10% of the school population suffers with dyslexia.			
18	Boys are more prone to be sufferers than girls.			
19	Dyslexics may find it difficult to express themselves orally.			
20	Dyslexics may find it difficult to fully comprehend what others mean when they speak.			
21	People who are very intelligent can be dyslexic.			
22	Dyslexia runs in families; dyslexic parents are likely to have children who are dyslexic.			
23	Dyslexia can affect a person's self-image.			
24	Students with dyslexia often end up feeling "dumb" and less capable than they actually are.			
25	A diagnosis of dyslexia can only be provided by a trained specialist.			
26	Dyslexics read backwards.			
27	Students have troubles remembering letter symbols for sounds and forming memories for words.			
28	Formal testing of reading, language, and writing skills is the only way to confirm a diagnosis of suspected dyslexia			
29	Dyslexic pupils can benefit from receiving extra time in tests or exams.			
30	Dyslexia can be linked to other learning difficulties, such as ADD or ADHD			
31	Many dyslexics are extremely talented in arts.			
32	Dyslexia can impact negatively on the individual's future job prospects			
33	Dyslexia does not actually exist; it's just an excuse for laziness.			

Please evaluate the statements below using the following codes:

- **SD – Strongly Disagree**
- **D – Disagree**
- **U – Unsure**
- **A – Agree**
- **SA – Strongly Agree**

SECTION C: IDENTIFICATION OF DYSLEXIC PUPILS IN THE CLASSROOM

NO	STATEMENT	SD	D	U	A	SA
34	I am able to identify the symptoms/characteristics of dyslexia.					
35	I am able to identify the characteristics of a dyslexic pupil as opposed to that of a slow learner.					
36	I am able to identify a learner who is in need of a diagnostic assessment with regards to dyslexia.					

SECTION D: MANAGEMENT OF DYSLEXIC PUPILS IN THE CLASSROOM

37- Are you aware of any dyslexic pupils in your class?

YES	NO
1	2

Answer the questions below ONLY if you indicated "yes" to question 37

NO	STATEMENT	SD	D	U	A	SA
METHODOLOGY						
38	I believe that I limit the number of instructions given at one time.					
39	I allow dyslexic students to sit close to the instructional focal point in my classroom.					
40	In my opinion, I try to repeat a sequence of instructions at appropriate points during practical activities.					
MEASURING PROGRESS						
41	I believe that I add positive comments to assessed work.					
42	I believe that I focus on the dyslexic's individual progress without comparing them to the rest of the class.					
WORKING WITH PARENTS						
43	In my opinion, I use the homework diary as a tool for communicating with parents.					
44	I believe that I keep parents informed of their child's progress.					
CLASSROOM BEHAVIOUR						
45	I am aware that dyslexics may have an inability to remember spoken instructions and this can lead to inattentiveness or apparent laziness.					
46	I am aware that dyslexics may have an inability to process written directions					
47	I believe that group work is detrimental to the dyslexic pupil's progress on a set class activity.					
48	I check that my instructions are clear and fully understood by asking pupils to repeat them.					
49	I believe that I vary activities so that pupils become less fatigued.					
DIFFERENT LEARNING STYLES						
50	In my opinion, I use a variety of different teaching methods.					
51	I believe pupil discussion in class is counter-productive as it only fosters a noisy classroom environment.					

52	I allow extra time in tests.					
ORGANISATION						
53	I believe I provide copies of class notes so that dyslexic pupils may simply listen to the lesson.					
54	I do not accept homework scribed by parents or other adults.					
55	I accept homework that is computer-aided.					
COMBATING THE EFFECTS OF FATIGUE						
56	I believe I provide copies of class notes so that dyslexic pupils may simply listen to the lesson.					
57	I believe that I set short, well-defined tasks.					
58	I think that I vary the types of tasks set.					
59	I believe that I set time limits for the duration of tasks.					
60	I understand the importance of creating an opportunity for purposeful movement within the classroom.					
61	I believe that I give out homework well before the end of the lesson.					
62	I ensure that homework is written down correctly.					
RAISING PUPILS' SELF-ESTEEM						
63	I believe that I praise effort as well as work well done.					
64	I insist that dyslexics read aloud in class.					

END OF QUESTIONNAIRE – THANK YOU FOR YOUR TIME AND EFFORT!

OBSERVATION

Observation Location :   Observation Date :

OBSERVATION	✓	✗
KNOWLEDGE ABOUT DYSLEXIA		
Indulgence towards spelling, pronunciation and writing mistakes.		
Aware enough about the difficulties dyslexics face when expressing themselves orally.		
Knows that dyslexics read backwards.		
Treating them as dumb.		
ABILITY TO IDENTIFY DYSLEXIA		
Pays attention to the repetitive mistakes in their copybooks.		
Insists on rereading then checks their comprehension.		
Aware that they get easily distracted.		
Pays attention to their reading speed.		
Checks if they have vision problems.		
Checks if they spell words as they sound.		
Aware that they mispronounce long words.		
Complains about the illegible handwriting.		
ABILITY TO MANAGE DYSLEXIA		
Adding positive comments to assessed work.		
Focusing on the dyslexic's individual progress without comparing them to the rest of the class.		
Using the homework diary as a tool for communicating with parents.		
Calling them stupid.		
Checks that instructions are clear and fully understood by asking pupils to repeat them		
Allows extra time in tests.		
Ensures that homework is written down correctly.		
Insists that dyslexics read aloud in class.		