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Dyslexia in the Armenian EFL Context

A thesis project submitted in

partial fulfilment of the requirements for the degree

Master of Arts in Teaching English as a Foreign Language

By

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## **DEDICATION**

To a better tomorrow.

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## ABSTRACT

The present study investigates the experience of dyslexic learners in the Armenian EFL context and aims to estimate the level of preparedness of MA TEFL students regarding teaching those with dyslexia. The study aims to reveal the daily challenges dyslexic students face in their English classrooms, their means of learning facilitation, and the areas of improvement they would like to see in Armenian EFL classrooms. In addition, the paper seeks to determine if it would be beneficial to add an inclusive education course to the MA TEFL programme. The study's two primary data collection tools are interviews and a survey, each assigned to different populations of participants – participants with dyslexia and MA TEFL students.

The results of the study indicate that students with dyslexia are often left to their own devices when it comes to the identification of the disorder and are forced to participate in activities that are not beneficial for them. The findings also reveal that dyslexic students are prone to use technology to facilitate learning and turn to audio/video materials when learning English. Finally, the survey results reveal that MA TEFL students are not professionally prepared to teach those with dyslexia and that there might be a need for an inclusive education course in the programme.

**Keywords:** *Dyslexia, Armenia, English, EFL, MA TEFL*

## CHAPTER ONE: INTRODUCTION

Dyslexia is a developmental learning disability and a condition that can considerably affect a learner's life and hinder their academic and professional progress. Known to the scientific world since the end of the 19th century, dyslexia remains an issue in many educational contexts (Gay'an, 2001). Even though the factual knowledge of dyslexia, the most researched learning disability in the world, is growing day by day, the same cannot be said about the practical side of the issue, i.e., the efficient integration of students with dyslexia into classrooms (Petretto & Masala, 2017). In Armenia, the situation seems to be similar – according to anecdotal reports, the status of dyslexia in the country varies from “unrecognised” to “neglected,” and judging by how little learning disabilities are researched in the local context, it is safe to assume that the situation is not expected to change anytime soon. Meanwhile, Armenia, a developing country that has gone through a number of debilitating events in the past 35 years, now more than ever needs the help of all its citizens to prosper and thrive.

### 1.1. Statement of the Problem

The focus of the study is primarily on dyslexia in the EFL (English as a Foreign Language) context. English is the most common lingua franca in the world and is the language of technology, politics, business, and science. Undoubtedly, knowledge of English is essential in every field that functions at an international level, which leads back to the point made above – Armenian citizens need to know English at one level or another to succeed in an ample professional and academic spheres. Meanwhile, the problem of dyslexia in the Armenian EFL classrooms remains highly under-researched. There is currently no open-access information regarding the linguistic and extra-linguistic challenges dyslexic students

face while learning English, and, therefore, there is little information about what can be done to alleviate the situation.

## **1.2. Significance of the Study**

The study's primary purpose is to provide an insight into the lives and experiences of several learners who have dyslexia and have studied English in Armenian public and/or private schools. Focusing on this topic is important for several reasons – the findings of the study can be beneficial for both Armenian EFL teachers who seek to learn more about teaching dyslexic students and actual students with dyslexia who are looking for ways and methods to facilitate their learning process. However, it is important to note that the purpose of the study does not limit itself to providing insights – it aims to raise awareness of dyslexia in Armenia and the Armenian EFL context. Moreover, the study aims to estimate the MA TEFL students' level of preparedness regarding teaching students with dyslexia and, therefore, benefit the programme by indicating points for future improvements.

The research questions developed for the study are the following:

1. What challenges do Armenian students with dyslexia encounter in the Armenian EFL context?
2. How do Armenian students with dyslexia facilitate learning of English?
3. What could be done to make the EFL learning/teaching experience more beneficial for dyslexic students?
4. What is the level of preparedness of the MA TEFL students regarding teaching learners with dyslexia?

### **1.3. Structure of the Thesis**

The paper is divided into five chapters that discuss the different stages of the study. Chapter 1 provides a brief overview of the thesis, discusses its significance and purpose, and introduces the research questions. Chapter 2 discusses and reviews the relevant literature regarding the topic of the study. Chapter 3 discusses the methods used in the paper, i.e., re-states the research questions and justifies the choice of the setting, participants, tools, and sampling methods. In addition, Chapter 3 overviews the processes of data collection and analysis, and the ethical considerations of the paper. Chapter 4 reports, discusses and interprets the findings of the study, while Chapter 5 overviews the recommendations, implications for future studies, as well as the limitations and delimitations of the thesis.

## CHAPTER TWO: REVIEW OF LITERATURE

To discuss the topic of dyslexia in the Armenian EFL context, it is crucial to specify what dyslexia is in the first place and how it can impact the lives of dyslexic students and their teachers. Dyslexia is a genetic, developmental learning disorder affecting one's ability to decode written texts. The word *developmental* indicates that dyslexia is typically not acquired – while damage to the brain can sometimes result in symptoms close to those of dyslexia, the disorder itself is innate and does not require an external impact. An impairment generally concerned with the fluency and accuracy of phoneme recognition, dyslexia affects a variety of language skills – spelling, word memorising, rhyming, etc. (Aylward et al., 2003; Fletcher, 2009; Peterson, 2012; Roitsch & Watson, 2019, Snowling et al., 2020).

First mentioned by Pringle-Morgan in 1886, dyslexia has become one of the most researched learning disorders in the world and is considered the most common learning disability in general (Gay'an, 2001; Petretto & Masala, 2017, Kohli et al., 2018). Statistics-wise, dyslexia is believed to affect around 5-15 per cent of the human population and is diagnosed more often in men than in women, although the diagnosis ratio is not 2 to 1 as it was believed previously (Petretto & Masala, 2017; Arnett et al., 2017; Krafnick & Evans, 2019). As the statistics suggest, there is still uncertainty as to how common dyslexia is and what might be the underlying reason/s for the sex ratio imbalance in its diagnosis. However, it cannot be denied that our knowledge of dyslexia has expanded dramatically over the course of time.

The aim of this literature review is to discuss 1) how dyslexia is perceived today in the modern world; 2) the threats it can impose on the lives of those who have it, and 3) recommendations for teachers who work with dyslexic students. The first two sections of the literature review overview the current definitions of dyslexia and their discrepancies and focus on the issues and methods of dealing with dyslexia identification in schools and higher

educational institutions. The focus of the following two sections shifts to the current means of dyslexia remediation and the creation of inclusive classrooms, which are considered essential for the success of dyslexic students in educational environments. Finally, the last two sections of the literature review describe the current methods and techniques of teaching English to dyslexic students and highlight the importance of student motivation when dealing with dyslexia.

### **2.1. Defining and Identifying Dyslexia**

Once thought to be a hereditary deficit related to the visual processing of words, dyslexia is now considered a neurological language disorder connected to the volume of grey and white matters in the left hemisphere of the brain (Evans, 2014; Torre & Eden, 2019). The reason dyslexia was initially dismissed as a language impairment is relatively clear – while it greatly affects an individual’s reading and spelling skills, dyslexia is *not* directly related to one’s level of intelligence and IQ (Fletcher, 2009; Roitsch & Watson, 2019; Snowling et al., 2020). The shift from the concept of “word blindness” to a learning disability happened in the 1950s after Noam Chomsky introduced his principles of “generative phonology” – a brand new approach to linguistics that provided a new perspective for dyslexia studies and changed the focus from the research of visual abnormalities to what is now the current understanding of dyslexia – a failure to acquire phonological skills (Aylward et al., 2003; Schulte-Körne, 2010, pp. 1-2; Stein, 2018).

It should be noted that, while dyslexia is often referred to as a *reading disability*, the difficulties a dyslexic individual has with reading are typically related to the phoneme recognition skills rather than those of reading comprehension (Peterson, 2012; Snowling et al., 2020). In fact, people with reading comprehension difficulties are often perfectly capable of word decoding; what they struggle with is *inferring* the meaning of written texts. However, Fletcher (2009) and Roitsch and Watson (2019) do not exclude comprehension difficulties

from the characteristics of dyslexia, stating that inaccurate word decoding may, in fact, lead to comprehension issues. Distinguishing and diagnosing dyslexia is not an easy task since reading and writing difficulties can be caused by multiple reasons such as stress, general poor level of education, and lack of support from teachers and family (Stein, 2018). Finally, the diagnosis of dyslexia is further complicated by the fact that the population samples used in dyslexia research predominantly include male participants and, thus, do not reflect the full picture of the disorder in society and make the situation unfavourable for women with dyslexia (Krafnick & Evans, 2019).

### **2.1.1. *Dyslexia Identification in the Educational Context***

In educational contexts, the exact definition of dyslexia varies from organisation to organisation and author to author. Petretto and Masala (2017) note that, while dyslexia is currently the most studied learning disability in the world, there is little scientific agreement regarding its definition and identification. This view is further supported by Miciak and Fletcher (2020), who discuss the differences and similarities of dyslexia definitions in some of the leading dyslexia-related organisations of the world, including the International Dyslexia Association (IDA), the British Dyslexia Association (BDA), The Rose Report, and the World Federation of Neurology (WFN).

While the “primary manifestation of dyslexia” (Miciak & Fletcher, 2020, p. 4) is always a considerable difficulty in reading fluently and accurately, not all the formulations presented by the organisations are the same. For example, the WFN and the First Step Act explicitly emphasise the role of *intelligence* in identifying dyslexia, stating that a dyslexic person has “the intelligence to be a much better reader” (Miciak & Fletcher, 2020, p. 4), i.e., the intelligence of a person who does not have dyslexia. Meanwhile, the Rose Report does not attribute the factor of intelligence to one’s dyslexia diagnosis at all, stating that dyslexic



students can score anywhere from high to low on an intelligence test (Snowling et al., 2020; Miciak & Fletcher, 2020).

Miciak and Fletcher (2020) argue that the inconsistencies and controversies in the definitions make the process of dyslexia diagnosis complex, and the term *dyslexia* ambiguous and vague. For this reason, the authors recommend the so-called “hybrid” model (Miciak & Fletcher, 2020, p. 11) of dyslexia identification, which consists of the following steps: 1) collecting evidence of low achievement in reading in terms of fluency and accuracy; 2) collecting evidence of poor performance in response to adequate instruction; 3) excluding other factors that can cause symptoms similar to those of dyslexia (e.g., other learning disabilities, mental illnesses, etc.).

The hybrid model of dyslexia identification is similar to the *Response to Intervention* (RTI) approach, modified by the American Psychiatric Association in DSM-5 as a diagnostic method for learning disabilities. The RTI approach is a newer replacement for the so-called *discrepancy criterion approach*, the focus of which is the discrepancy between one’s expected level of reading based on their IQ and their actual reading skills (Fletcher, 2009; Petretto & Masala, 2017). Petretto and Masala (2017, p. 1) bring the following steps as the main diagnostic criteria in RTI: 1) “persistence of the symptoms for at least 6 months” after interventions; 2) “impairment of single or more abilities, with negative effects on school achievement”; 3) “onset in a school-age, even if the disorder could fully manifest later”; and, finally, 4) the exclusion of intellectual disabilities, inadequate instruction, and sensory problems.

### **2.1.2. Dyslexia in Higher Education**

The issue of identifying dyslexia is mainly concerned with primary and secondary education but is not exclusive to it. Tops et al. (2012) and Warmington et al. (2013) discuss

the topic from the point of view of young adults and adults studying at higher educational institutions. According to the authors, the number of dyslexic students entering colleges and universities is increasing; however, not all of them have been officially diagnosed with dyslexia, and the need for a “standardised diagnosis” is growing (Tops et al. 2012, p. 186; Warmington et al., 2013; Pino & Mortari, 2014).

While many higher educational institutions are equipped with screening tests and diagnostic tools, their efficiency is yet to be proved, and the quantity of the tools is not a direct indication of their quality. Tops et al. (2012) argue that a variety of different tests are not, in fact, necessary to diagnose adults with dyslexia and propose a combination of 3 tests to confirm or deny a diagnosis: 1) word reading test; 2) word spelling test; and 3) phonological awareness test (assessed by identifying pairs of normal and reversed words). Dyslexic students are expected to take more time to finish the assignments, and the accuracy of their answers is expected to be considerably lower when compared to that of students without dyslexia. Warmington et al. (2013), on the other hand, propose the York Adult Assessment-Revised (YAA-R) as a dyslexia identification tool in higher education. YAA-R is an assessment battery, which consists of multiple tests on reading, spelling, writing, and phonological skills. The authors state that YAA-R “has good discriminatory power, yielding 80% sensitivity and 97% specificity”, and is a suitable and working option for university students (Warmington et al., 2013., p. 1, 7).

Dyslexia is known to affect the learning process for those who have it considerably and, when disregarded, is likely to lead to low grades and low academic performance. Richardson and Wydell (2003, p. 500) claim that students with dyslexia are more likely to withdraw from their first year of university or college than those without any learning disabilities, and this can be due to “inadequate support” or guidance from the faculty. Meanwhile, the situation is exacerbated for those who go through their academic journeys

undiagnosed and sometimes unaware of their condition. Chanock et al. (2010) and Richardson (2021, p. 125) argue that colleges and universities have students who either do not know about their learning disabilities or “are often disinclined to admit they have problems with learning”. In the case of the former, dyslexia is often identified by faculty members, e.g., professors who can see the discrepancy between their students’ oral and written answers. The authors claim, however, that to identify dyslexia, educators should be aware of the main manifestations and symptoms of the disorder, which is not always the case (Chanock et al., 2010). In addition, if the students are reluctant to get tested or talk to the administration, there is only so much the faculty can do to help them.

The reasons students may be reluctant to address their issues are the following: peer influence, social and economic status, inefficient time for treatment, or unwillingness to be labelled as *disabled* (Chanock et al., 2010; Richardson, 2021). Chanock et al (2010) note that students are more likely to seek assistance if they: 1) are worried about the impact dyslexia has on their grades; 2) see their peers seek help for their own problems. While the point with grades is mainly based on the factor of student anxiety and does not seem a healthy way to tackle the problem, raising mental health and/or learning disability awareness among students may be a working tactic. On a similar note, Richardson (2021, p. 128) discusses the importance of destigmatising the term *disability*, bringing up Dr Stephen Hawking’s quote: “*Disability need not be an obstacle to success. I have had motor neuron disease for practically all my adult life. Yet it has not prevented me from having a prominent career in astrophysics and a happy family life*”. Richardson (2021, p. 127) further discusses the *Universal Design for Learning* (ULD) framework, based on the idea that learning programmes should be created to meet the needs of all types of students and with the understanding that some people “learn differently than others”.

Dyslexia identification and diagnosis are essential in any academic context including higher education, but there are pitfalls university staff and faculty should be aware of. Van den Boer et al. (2018) and Harrison et al. (2021, p. 229) maintain that, while some university and college students are in genuine need of assistance with dyslexia and other learning disabilities, there may be a number of those who feign or exaggerate symptoms to get special accommodations and “secondary gains”, such as “extra time” during exams, “tax benefits” for people with disabilities, and even “bursary monies” for purchasing additional devices such as computers and other aiding technology. The authors note that academic staff and college/university clinicians should be aware of such a possibility and should therefore validate/evaluate the symptoms of *all* students who claim to be dyslexic or have other learning disabilities. Harrison et al. (2021) base these claims on their own research, in which 46.7 per cent of the feigning group scored less than the lowest dyslexic scorer, meaning that *critically low* results on screening tests may be a sign of cheating and need to be investigated further.

## **2.2. Treatment and Remediation**

The difficulty of diagnosing dyslexia is not the sole or principal challenge a dyslexic student or their teachers may face in the educational context. Once the diagnosis is finally made, a more significant and challenging issue arises – what should be the next step and how (and if) dyslexia can be treated. Brunsdon (2002), Bakker (2006), and Kumar (2009) point out that, while there is an extensive amount of research on the nature and definition of dyslexia, little is known about the methods and techniques that can be used to treat the disorder. Despite this, hundreds of educational institutions claim to be able to help dyslexic children overcome their impairment; few of them, however, back up their claims with scientific research. The main issue with the situation is that, while some students may benefit from taking courses of underqualified institutions, many others may become too discouraged

to continue working on their problems. Meanwhile, 40-60 per cent of dyslexic students struggle with co-morbid psychological and mental disorders such as depression, anxiety, and ADHD (Schulte-Körne, 2010), and a lack of treatment can be particularly harmful and debilitating.

While the issue of under-researched dyslexia treatment prevails (Bakker, 2006; Kumar, 2009), it is essential to distinguish and identify what exactly *treatment* means in the first place. According to Schulte-Körne (2010), the first stage of dyslexia remediation should be based on *educating* the student, their teachers, and family by providing them with all the relevant and currently available information about the disorder. Moreover, the treatment of co-morbid psychological and mental issues should be prioritised as well – a student who struggles with multiple problems at the same time is likely to get exhausted while battling all of them simultaneously. Providing a dyslexic student with “regular reading” and “individual spelling” support (Schulte-Körne, 2010, p. 723) should be the last stage of the remediation process, and it is crucial to ensure that all the steps are taken to make the journey as comfortable for the students as possible. The ethical side of dyslexia treatment must not be overlooked either – preventing any harm to the students during the remediation process is as vital as providing reading and spelling support.

### **2.2.1. Music Education**

One of the most surprising modern means of providing dyslexia remediation is music education. Moreira et al. (2012) argue that well-developed musical abilities can be helpful and beneficial to those with dyslexia due to the link between one’s auditory, motor, and literacy skills. In their turn, Overy (2000; 2003) and Huss et al. (2011) point out that there are anecdotal reports that people who suffer from dyslexia struggle with learning musical instruments, notating, and perceiving tempo. Musical training, in its turn, improves one’s sensory and auditory skills by boosting the rhythmic and metrical skills, which are not

exclusive to the musical domain only and are important for both music and speech (Flaugnacco, 2015; Huss et al., 2011). While music processing predominantly takes place in the right hemisphere of the brain, “rhythm perception” is associated with the left hemisphere – the area of the brain related to “language processing” (Overy, 2000, p. 221).

Moreira et al. (2012, p. 3) define music training as “a process of learning music supervised by a music teacher or a specialist in music education”. The definition above is important due to several factors: enough time and effort should be allocated to different musical sub-skills, students should learn the basics of music theory, instructors should be qualified and capable of teaching students with diverse musical abilities. The classroom atmosphere is essential, too – one of the advantages of musical training as a dyslexia treatment method is in its distinction from traditional classroom practices, which can sometimes be perceived as tedious or stressful for the students. Huss et al. (2011) and Overy (2003) emphasise the importance of student engagement and motivation during music classes, stating that the elements of fun and pleasure are necessary for positive results, as opposed to stress and frustration that are likely to hinder progress.

### ***2.2.2. Linguistic Remediation***

Bakker (1992) and Massuto (1994) identify two sub-types of dyslexic students – type L (linguistic) and type P (perceptual) – and suggest that each sub-type should be treated by methods appropriate to them only. The difference between the sub-types is yet again connected to the right and left hemispheres of the brain – according to the authors, there seems to be a “hemispheric shift” in the control of reading. While type P students fail to make the shift in time and read slowly and in a fragmented manner, type L students shift too soon and, in their turn, read hastily and inaccurately (Bakker, 1992, p. 103). The correct and effective treatment for each sub-type, should be focused on stimulating either the left (type P) or right (type L) hemispheres of the brain, and it is important first to identify to which sub-

type a student belongs to before beginning the treatment. Some of the brain stimulation methods brought up by the authors are readings with different typefaces for type L students (e.g. “oNcE UPoN a TIME tHEre WaS a...”), readings with omitted words for type P students (e.g. “Once upon a ... there ... a...”), as well as “presentations of letters” in either left or right visual fields (Bakker, 1992, p. 106).

Another dyslexia treatment hypothesis is presented by Aylward et al. (2003), who argue that, while dyslexia is affected by one’s phonological skills, morphological awareness should be emphasised during the treatment process as well. The authors argue that dyslexia remediation should be performed through phonological *and* morphological activities that stimulate the brain and thus increase changes in brain functions. Elbro and Arnbrak (1996, p. 210) believe that morphemes are particularly important for readers as they are “good indicators of meaning” and facilitate the reading process by allowing readers to guess the meanings of the words. The authors argue that dyslexic students who tend to read words “morpheme-by-morpheme” as opposed to “syllable-by-syllable” (p. 222) show better results than those who do not, and it may be effective to teach “morpheme recognition” as a strategy for boosting fluency and accuracy for those with dyslexia. Another advantage of the morphemic awareness approach is that it is applicable to all people who have dyslexia, regardless of their age. The only reported difference in the results of children and adults who use the technique above is that, while children outperform adults in terms of accuracy, adults outperform younger dyslexics in speed and fluency.

### **2.3. Dyslexia in the classroom**

Dyslexia is undoubtedly a complex learning disorder that needs plenty of research in terms of general information, diagnosis, and treatment methods. Yet, millions of students, their families, and teachers deal with dyslexia here and now and cannot afford to wait until more is known about the disorder. One of the most important aspects of inclusive classrooms

that allow dyslexic students to study along with their non-dyslexic peers is the teachers' *attitudes* toward dyslexia and their readiness to help their students. Worthy et al. (2016) argue that, while most of the current research on dyslexia is published by psychologists, neuroscientists, and physicians, very little is said from the perspective of educators. Teachers, who are often the first to notice the signs of dyslexia in their students and the immediate people to deal with it, are often the ones whose voices remain "silent" (Worthy et al., p., 449). Washburn et al. (2011; 2014) believe that, even though teachers are not expected to diagnose dyslexia, it is essential that they have an accurate and profound understanding of the disorder and not rely on the results from the first few pages of Google Search should they encounter a dyslexic student.

### **2.3.1. *Teacher Perceptions and Practices***

Teacher attitudes and practices are determining factors when it comes to the integration of dyslexic students into regular classrooms. Gwernan-Jones et al. (2010) argue that, often, even the most experienced teachers find themselves helpless when dealing with dyslexic students, and a considerable amount of research indicates that many teachers consider themselves under-qualified to teach special-needs students. At the same time, while some educators express confidence in teaching dyslexic students, their lack of *understanding* of the disorder can hinder or delay their students' academic success. Another challenge that may arise for those who teach students with dyslexia is poor knowledge of basic linguistic concepts such as phonics, phonology, and morphology – dyslexia treatment methods often include activities that raise phonological and morphological awareness, and it is crucial that teachers master those concepts before teaching students. The most critical aspect of integrating a dyslexic student in the classroom, however, is the factor of teacher bias against dyslexia (Hornstra et al., 2010). Teachers who stigmatise and label dyslexic students may



cause irreversible damage that will not only hinder student achievement but may also undermine students' motivation and willingness to battle their impairment.

The issue of dyslexia in the classroom is relevant for all teachers as reading and writing are integral and unavoidable parts of most educational activities. It cannot be denied, however, that language teachers are among the first expected to deal with dyslexic students and the ones to provide the students with reading and writing support. When it comes to foreign language teachers, the situation is even more challenging – not only should they be able to find means to create inclusive classrooms but should also do it in a language not native to the students. English is among the languages considered particularly hard for those with dyslexia – its orthographic system, i.e., the written representation of the spoken language, is highly conventional and often unpredictable (Landerl et al., 2013; Costenaro et al., 2014). Helland et al. (2005, p. 43) explain that, while there are only 26 letters present in the English alphabet, the number of the phonemes varies from 41 to 44, and they can be written in “561 different ways”. While dyslexic students can often rely on the rules of languages with consistent spelling, e.g., Spanish or Italian, English provides very few such opportunities.

The creation of inclusive classrooms for English learners with dyslexia can be achieved by the inclusion of specific accommodations, such as the use of different types of technology, as well as student encouragement and motivation by the teacher. Schneider and Crombie (2012, p. xi) state that, when working with dyslexic people, it is crucial “to enable them to show what they can do, not what they cannot do”, meaning that it is essential to create opportunities where students with dyslexia can demonstrate their abilities without being confined by their impairment. Bodnar (2015, p. 48) adds that teachers should strive to control the progress of dyslexic students, “give them support”, and use “rewards” and “positive feedback” when the students succeed in their activities. Most curricula are indeed

designed to fit the needs of neurotypical students, i.e., those who do not suffer from any disorders and learning disabilities, and it can be hard for teachers to adapt and adjust the learning programmes for those they were not created for.

### **2.3.2. Teaching English to Students with Dyslexia**

In their research, Wadlington et al. (1996) focus on the process of integrating dyslexic students into regular classrooms and talk about the points that should be taken into consideration to make instruction effective for all students. The authors come up with a set of recommendations regarding both the teaching process and classroom management and emphasise the importance of following them on a daily basis. First, dyslexic students need *explicit, oral and visual instructions* of both the assignments and the objective of each class. It may be a good idea to sit dyslexic students close to the teacher so that they can ask questions as often as they need to and, if need be, have the information paraphrased and repeated several times. When answering the teacher's questions or taking a test, students should be given more time to formulate their answers and be informed about the assignments beforehand to have enough time to practice their responses. Teachers must be aware that dealing with dyslexia and concentrating on a class may be tiring, so it is recommended to make student reading and writing assignments fewer and/or shorter than usual. If writing and reading are particularly troublesome for a student, they should be allowed to present information orally or have extra assistance from the teacher. At the same time, penalising spelling errors can discourage dyslexic students from writing and participating in the class activities, and it is not recommended to put too much emphasis on spelling correctness. Lastly, teachers are advised to split big projects into smaller assignments and provide feedback to dyslexic students after each step has been completed.

When it comes to the techniques and methods of teaching English to dyslexic students, some prove to be more effective than others. Anjum and Mansoor (2020, p. 17)

suggest that the use of “computer-aided” resources and learning materials in English classrooms can be helpful and beneficial for students with learning disabilities, including those with dyslexia. The authors define the use of such technology as a “multimodal presentation of the content” with the help of a “variety of exercises” (p. 15). Meanwhile, Bodnar (2015, p. 50) claims that one of the “most appropriate” and efficient teaching methods for dyslexic students is the “multi-sensory teaching method”, where the students get to process information through all their senses, including *sight*, *hearing*, and even *taste* and *smell*. Dyslexic students can benefit significantly from learning new words by writing in the air with their fingers, imagining the words, singing the words, and reading them aloud. A similar approach is proposed by Costanero et al. (2014, p. 210), who suggest the usage of the “Sound Pathways Project”, a support material “in the areas of phonology and orthography”, designed specifically for dyslexic students. The “Sound Pathways Project” is based on the principles of multi-sensory stimulation and includes “playful methodology”, i.e., use of games and gamified tasks, and “narrative structure” – characterisation of a few phonemes in each unit.

According to Sudek and Encinas (2019, p. 6), the main advantage of multi-sensory activities is in their ability to let students “support their weakest channel with input from the strongest”. For example, to teach spelling and writing, teachers may have the students use their auditory, visual, or tactile channels, e.g., model words from clay, write with their fingers on the backs of their peers, listen to specific sounds, and sort them afterwards. Another activity mentioned by the authors is *Trace/Copy/Recall*, which consists of a paper chart with three columns that should be folded whenever a student wants to revise tracing, copying, or recalling a specific word and then flipped back for checking (Sudek and Encinas, 2019). Writing “crazy stories” with challenging words and acting them out may be a great way to teach vocabulary, and songs and images can be used to teach grammar rules that would

otherwise be too difficult to grasp. Sudek and Encinas (2019) point out, however, that the use of auditory and visual cues should not make grammar teaching implicit, adding that explicit instruction is more effective when working with people with dyslexia. Schlesinger and Gray (2017, p, 8) add that both synthetic and analytic instruction should be present when teaching with the multi-sensory approach, meaning that students should be taught how “parts come together to form a whole” (synthetic) and how the whole “breaks down to component parts” (analytic). Meanwhile, *the whole* can be a linguistic unit of different levels: a word, a sentence, a paragraph.

Finally, when it comes to teaching reading, Deacon et al. (2012) and Fink (1998) discuss the case of the so-called *high-functioning dyslexics*, i.e., dyslexic people who, in one way or another, have learnt to use different strategies to *compensate* for their learning disability to the point that their reading skills are equal or close to those of people without dyslexia. According to the authors, such dyslexics constitute 22-25 per cent of the dyslexic population, and the strategies they use to read may have a potential benefit for those who have not found ways to battle their disorder (Deacon et al., 2012). Fink (1998) discusses the cases of 60 individuals with high-functioning or compensated dyslexia, trying to find out how they managed to tame the disorder and succeed academically and professionally. The findings turn out to be rather surprising as many of the participants explain their reading fluency by being avid readers since childhood. Fink (1998, p. 322) describes the somewhat paradoxical situation by the fact that the participants had “a strong desire to know more about a content area of passionate personal interest” and willpower to continue reading *despite* the tremendous difficulties. With extensive reading practice, the participants were able to “develop deep schema knowledge” and the ability to quickly guess the meaning of words they could not decode from *context* (Fink, 1998, p. 324). It is, of course, unreasonable to make all dyslexic students read excessively to develop reading fluency, but it may be

beneficial for them to read more about their areas of interest and let them choose what they would like to read about during English classes.

#### **2.4. Conclusion**

Foreign language instruction, as well as classroom instruction in general, is a process full of challenges and difficulties for teachers and students. Integrating dyslexic students into regular classrooms poses an additional challenge for teachers, as they need to know both how to work with special needs students using a variety of educational activities and create an inclusive academic atmosphere where every student has a sense of belonging. Dyslexia has gone a long way from being considered a visual abnormality to a learning disability that considerably affects an individual's social and professional life. A disorder complex in its nature, dyslexia poses difficulties on many levels for both students, their teachers and parents. Identifying and diagnosing dyslexic students is a difficult task both in school and higher education, and there is not one single standard that can facilitate the process and help educators make decisions about their students.

The methods of dyslexia treatments vary from author to author, with some being effective and beneficial for dyslexic students and some not so much. While remediation of dyslexia is a topic to be researched a lot more and in more depth, the most critical aspect of integrating dyslexic students into various educational settings and contexts lies in the beliefs that teachers and school administrators hold about the disorder. Excluding stigmatisation of dyslexia is the first step to success, and it should be followed by plentiful activities that boost the reading and spelling skills of dyslexic students. Assisting the students during the classes and giving them special accommodations, such as extra time and shorter assignments, is also important for the efficiency of the teaching process. Each individual's education is dependent on multiple internal and external factors that either facilitate the process or make it harder.

Creating a collaborative, supportive, and inspiring classroom atmosphere should be the core of the teaching process of both typical and special needs students.

## CHAPTER THREE: METHODOLOGY

### 3.1. Purpose of the Study

The primary purpose of this study is to raise awareness about dyslexia and its manifestations and issues in the Armenian EFL context. The importance of the study is justified by the fact that dyslexia remains an under-researched topic in the Armenian reality. As of March 2022, a simple Google Scholar search containing the phrase *dyslexia in Armenia* results in 0 papers that would directly discuss the topic, and there are no openly available scientific papers in Armenian either. The general level of dyslexia awareness among Armenians seems to be rather low as well – there are anecdotal reports of people either dismissing dyslexia as something unimportant and exaggerated or not being aware of its existence altogether.

As stated in the Introduction chapter, the research questions developed for the study are the following:

1. What challenges do Armenian students with dyslexia encounter in the Armenian EFL context?
2. How do Armenian students with dyslexia facilitate learning of English?
3. What could be done to make the EFL learning/teaching experience more beneficial for dyslexic students?
4. What is the level of preparedness of the MA TEFL students regarding teaching learners with dyslexia?

The research is based on the principles of an instrumental case study (Stake, 1995), which mainly aims to give an insight into the experience of a particular person or a group – in this case, people with dyslexia who have studied English in Armenia. The main data collection instrument in this paper is the interview, which is one of the most common

instruments in case studies and qualitative research in general (Stake, 1995). The thesis, however, does not focus solely on one population; it also includes a number of first and second-year MA TEFL students and investigates their perceptions and opinions on dyslexia via a survey, which is a fast and convenient method of data collection when working with a bigger number of participants. The information on the process of data collection, as well as the participants and the research site, can be found in the first two sections of the Methodology chapter. Finally, the chapter discusses the process of data analysis and the ethical considerations that are especially crucial when dealing with a vulnerable group of participants.

## 3.2. Research Setting and Participants

### 3.2.1. Research Sites

Armenia is a landlocked country situated in the region of the Caucasus, at the intersection of Western Asia and Eastern Europe. Once a part of the Soviet Union, Armenia is now an independent republic with a population of 2,961,000 (statistics of the Government of the Republic of Armenia as of January 2022). In the past 35 years, Armenia has suffered through a



Figure 1. Map of Armenia. Source: Encyclopædia Britannica

devastating earthquake and three wars, which have undoubtedly contributed to the pace of inclusivity in education and the level of public awareness regarding dyslexia and other learning disabilities. After all, a country forced to re-build itself time after time must cater to the basic needs of its people and has fewer resources to advance in all spheres and areas. In addition, Srivastava et al. (2015) claim that developing countries have a relatively short



history of inclusive education in general, which affects the pace and the objectives of such instruction.

Armenia has been chosen as the *main* research setting of the paper meaning that the sampling procedure focused on participants from all over the country, without taking their native towns or educational institutions into consideration. First, choosing participants from one particular region, town, or city would be overly time-consuming and counterproductive as the number of participants would most likely be reduced. Second, given how little is known about the issue of dyslexia in Armenia, focusing on one specific location would not bring additional insights to the paper. It is important to note, however, that there is also a secondary setting in the thesis, which is the American University of Armenia, in particular – the Teaching English as a Foreign language programme (MA TEFL). The choice of the setting was justified by the fact that the study was conducted as partial fulfilment of the requirements of the programme and sought to benefit the programme by offering data on the preparedness of the MA TEFL students in regard to teaching dyslexic learners.

### **3.2.2. Participants**

The main population of interest of the paper was people who had dyslexia and had studied English in the Armenian EFL context to the point where they had become able to function in the English language in academic and professional settings. The participant recruiting procedure was conducted on the principle of purposive/judgemental sampling, meaning that the participants were selected on the basis of 3 factors – 1) having dyslexia; 2) having studied English in Armenia for a significant amount of time; 3) having an English proficiency level of approximately B1-B2 and higher. There was also no strict age limit for the participants; however, the recruiting process was mainly focused on people older than 16 and younger than 35. The choice above was justified by the fact that the participants needed

to be old enough to have the required language proficiency level and sufficient experience of learning English in Armenia and be young enough for the findings of the study to be relevant.

It should be noted that finding participants with dyslexia in Armenia proved a difficult task as the disorder is not widely diagnosed in the country, and the topic is not of those that are discussed openly. All in all, seven participants were recruited for the study, one of whom did not have dyslexia but was a parent of a dyslexic learner able to share their insight regarding the problem. All dyslexic participants were of age and were either university students or recent university graduates. A curious observation that cannot be omitted is that the gender of the *absolute* majority of the participants was *female*, whereas dyslexia is more common in males (Krafnick & Evans, 2019). Whether this discrepancy happens due to socio-cultural reasons, in which Armenian women feel more comfortable speaking about topics that are generally considered *sensitive*, or to the gaps in our knowledge about dyslexia, the gender ratio imbalance shows a striking difference in theory and practice.

The 2<sup>nd</sup> population of interest of the thesis was first and second-year students currently studying in the MA TEFL programme at the American University of Armenia. The sampling procedure was conducted on the principles of purposive/judgmental sampling. The MA TEFL students were selected with the purpose of estimating the level of dyslexia awareness among the students of the programme. As stated above, the paper sought to benefit the MA TEFL programme by offering data as to how prepared and confident the students felt about teaching students with dyslexia, and how aware they were of dyslexia in general. All in all, a total of 22 MA TEFL students chose to participate in the study and their participation was on a completely voluntary basis.

### **3.4. Data Collection**

The data collection process from both populations of interest (students with dyslexia and MA TEFL students) happened concurrently as the procedures were independent of each other. Each group was assigned one instrument of data collection, both of which are described in more detail below.

#### **3.4.1. Interviews**

According to Stake (1995, p. 64), “the interview is the main road to multiple realities”. The interview was chosen as the primary tool of data collection in this paper as it aims to give the reader an insight into the daily experiences and challenges of English learners with dyslexia in the Armenian EFL classrooms. A total of 7 one-on-one *semi-structured* interviews were conducted in the course of the study. A list of main questions (see Appendix A) was designed to be discussed during each of the interviews; however, several follow-up questions and discussion points arose during each conversation. The interviews were conducted in the months of February and March of 2022 and took place both offline, i.e., in-person and online, using the Zoom platform. On average, the interviews lasted from 20 to 30 minutes and were audio-recorded with prior permission from the participants. The questions designed for the interviews touched upon the general educational background of the participants, their experience related to learning English, as well as language learning techniques and methods they found effective when learning English as dyslexic students.

#### **3.4.2. Survey**

The online survey was designed to collect the MA TEFL students’ opinions and attitudes towards dyslexia, estimate their awareness of the disorder, as well as estimate their preparedness to teach students with dyslexia. The choice of the instrument was based on the *practicality* of the survey format, as it allows the researcher to collect responses from a relatively big population in a short amount of time. Granted, surveys do not give the same

level of insight as interviews; however, the choice of the instrument was justified by the fact that the data from the survey was supplementary to the main findings of the study and was not its primary focus. The survey consisted of both multiple-choice and open-ended questions which aimed to collect information on how ready the participants were to work with students with dyslexia, how aware they were of the main manifestations of the disorder, and what steps they would take if they were to teach dyslexic students. The survey was distributed via a Viber group and email, and the participants chose to fill it in on a voluntary basis.

### **3.5. Data Analysis**

The audio-recorded interviews were transcribed word for word and were analysed to reveal common patterns that could further be coded into themes and be sorted out into bigger categories. The findings were analysed through the prism of the research questions, aiming to answer what the study was trying to investigate in the first place. The multiple-choice questions from the survey were turned into graphs that reveal the most common opinions and attitudes of the MA TEFL participants towards dyslexia, and the open-ended answers were analysed in a procedure similar to that of the interviews, where the responses were sorted into common themes and patterns.

### **3.6. Ethical Considerations**

The study has undergone an IRB review, as people with learning disabilities are considered a vulnerable group. Prior to the interviews, all participants with dyslexia were given *consent forms*, which they signed either in person or online with the help of computer software. The participants were informed both orally and in a written form that they were free to terminate their participation at any given moment and that no personal information that could lead to their identification would be shared in the thesis. In addition, the interview questions were designed to be as unimposing for the participants as possible, given the

sensitivity of the topic. As for the MA TEFL survey, it was designed to ensure the anonymity of the participants and did not ask for any personal information either.

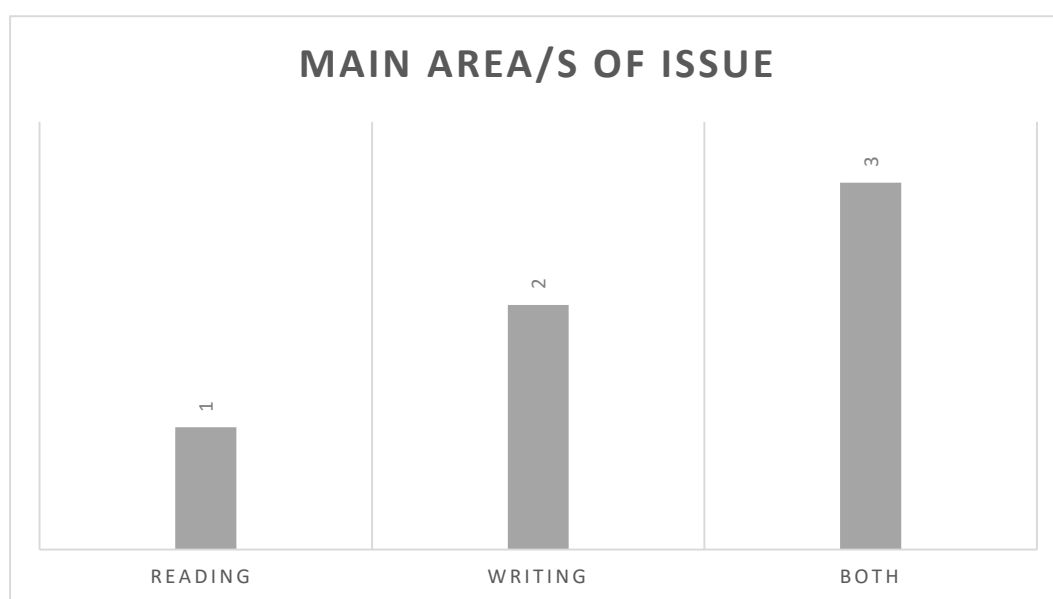
## CHAPTER FOUR: RESULTS AND DISCUSSION

This chapter discusses and interprets the results and findings of the study in the light of the research questions, each of which are presented separately in the passages below.

### 4.1. Research Question 1:

*What challenges do Armenian students with dyslexia encounter while learning English in the Armenian EFL context?*

#### 4.1.1. Symptoms and Other Manifestations of Dyslexia



*Figure 2. Area/s of issue for dyslexic students.*

While dyslexia symptoms are often generalised to issues with reading and writing, the study results show that the disorder does not manifest itself the same way in every participant. Moreover, not only is dyslexia perceived differently by the people who have it, but it may also affect the reading and writing skills to different degrees. Figure 2 presents the participant answers as to what language skills they found the most challenging. As one can see, three of six dyslexic participants had difficulties with both reading and writing, two were challenged with writing, and one person found reading the most difficult aspect of dealing with the language. The excerpts from the interview presented in Table 1 give further insights

into how the research participants explained their manifestations of dyslexia, i.e., their symptoms, as well as their feelings, as is in the case of Participant 6.

*Table 1. Participants on their symptoms.*

<b>Participant 1</b>	<i>My biggest problem is spelling. I don't struggle to express my thoughts on paper, but I struggle making them grammatically correct. So, basically, my main issue is just the spelling of words. That so far has been the biggest and, frankly speaking, the only issue that I've had. Spelling still haunts me to this day. I still have to double-check and then triple-check all of my writing.</i>
<b>Participant 2</b>	<i>I don't read very well. When I read, I change the order of words sometimes. But I don't notice it, actually. Other people told me that I was doing that when I was reading out loud. But I didn't notice it was wrong... (When writing) I mix up my letters sometimes. When I write on the computer, it's usually okay because Word fixes my mistakes. Also... on computer, it is easier to write because I type, I don't actually write physically by the hand.</i>
<b>Participant 3</b>	<i>Whenever I'm nervous, it's like, displayed way more. Also, it really, really affects your, like... writing skills, because I'm so bad at spelling... I was super good at talking and learning the language. It was super easy for me. But whenever I had to write, it was a mess... Sometimes instead of "dog" I write "god" or the opposite, and it makes zero difference to me. I don't even notice what I did.</i>
<b>Participant 4</b>	<i>Honestly, writing... I do not have that much of a problem. But when it comes to reading, it is kind of... in front of my eyes, it's like the letters mix</i>

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*places and the text itself starts to float and blur out. When it comes to spelling, I kind of just take my time to, in my mind, go over the letters that the word has in it, and then just go by one by one really slowly... So the problem is mainly reading and writing is okay...But for me, it's still difficult to read my own writing. It's easier for me to, like, just stop and read a book that I just picked up. But when it's my own writing, I do not know how that works. I don't get why but when it comes to my own writing, I have a bigger problem with it.*

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**Participant 5** *Most problems come while reading because... the letters, in my case, merge together, some of the text blurs out, especially when I'm stressed. (At school) except for the reading parts, the hardest part was spelling. I just couldn't get it right whatsoever, especially after Armenian and Russian... The spelling was just... it was just horrible. Even till now, I struggle with spelling sometimes.*

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**Participant 6** *It's a shame that you can't treat it, but you're supposed to read... shame of... You can't write sometimes, even your name... because you are nervous and it can make you misspell your name, your country name... things that it is obvious that everyone can. It was horrible, that feeling that you sort of you want to do something, but you can't.*

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As the excerpts show, there are repetitive patterns among the participant answers, some of which are: 1) participants are prone to mix up the places of phonemes and/or lexemes while both reading and writing and may not realise they are doing it until told by someone else; 2) for people with dyslexia, the text may float and blur, making it hard or impossible for them to read. Two of the participants discussed points unique only to them,



e.g., Participant 2 mentioned that typing is easier than writing by hand, which was not mentioned by anyone else. Participant 6, on the other hand, spoke of the feeling of shame, which is not a symptom of the disorder per se but can rather be a direct result of it. Overall, the findings demonstrate that each person with dyslexia is a unique case with their symptoms, attitudes, weaknesses, and strengths. Teachers who work with such students should be ready to find an individual approach to each student and must not perceive dyslexia as a uniform issue that affects everyone the same way. As noted by Washburn et al. (2011; 2014), teachers must have an accurate understanding of dyslexia and should not rely on the general information available on the first pages of a Google search.

#### **4.1.2. Teacher Knowledge and Attitudes**

One of the primary responsibilities of a teacher in a classroom setting is the creation of a sound and effective learning environment for the students. Teacher knowledge, attitudes, and practices regarding learning disabilities are crucial as teachers are often the first to detect the signs of the LDs and are the ones expected to assist the students through their years at school. However, the participant interviews have revealed that the Armenian EFL reality is currently far from being dyslexia-friendly, and teacher practices and attitudes were named among the most common sources of student distress, loss of motivation, and negative school experience, in general. It seems that not only is there a significant gap in the knowledge of Armenian EFL teachers regarding dyslexia, but also a teacher bias toward students who are not able to perform their best in every classroom activity.

##### **4.1.2.1. Teacher Knowledge**

Dyslexia is believed to be the most common learning disability in the world, which makes it essential for teachers to be able to detect it in their students as early as possible. Meanwhile, *none* of the research participants was ever approached by their primary or secondary grade Armenian EFL teachers concerning their learning disability. Two of the

participants were told about their condition by the age of *sixteen* by an English teacher and, respectively, a tutor, while the rest of the participants were either diagnosed with dyslexia while living abroad, self-diagnosed themselves for lack of a better option, or sought advice from friends and acquaintances. Participant 7, in her turn, did her own research and diagnosed dyslexia in her son. Table 2 presents excerpts from participant interviews, in which they discuss how they came to realise they had dyslexia or how other people informed them about their learning disability.

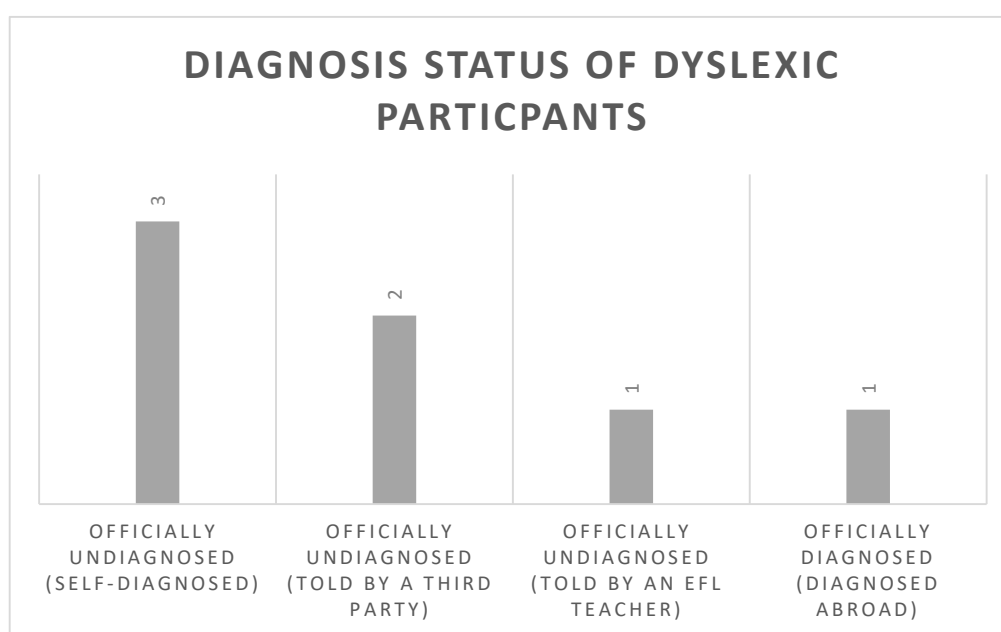


Figure 3. Participant diagnosis status.

Table 2. Participants on learning about dyslexia.

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<b>Participant 1</b>	<i>At the age of sixteen, I was actually told by my English tutor. I was reading in her presence even when I wasn't reading out loud. She said, "I am noticing that you're kind of struggling to read. You might not notice it yourself. But I see it from the side," ... None of my teachers said</i>
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to me that, “We think you have a problem,” besides my English tutor. So, I'm not sure whether or not they even knew.

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**Participant 2** *We lived in Armenia until I was 10. But then... our family... we moved to Russia, and I went to a Russian school there. And it was my teacher. She spoke to my parents... to my mum, basically... I can't say that they (Armenian EFL teachers) paid attention to my... issue or... I mean, they didn't know about dyslexia.*

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**Participant 3** *I think it was around the age of eleven when... we were starting reading out loud in the school. And I really realised that it's... quite different. I'm reading quite differently than my peers. That was the first time I started experiencing symptoms, and I Googled a bit...But they (teachers) thought that I wasn't practising enough. And they never, like, guessed what's happening. They were like, “Okay, we don't know what to do with you because you're super good at one thing, and you're, like, super bad at another thing”.*

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**Participant 4** *I... just got the idea of what dyslexia might be when I was around fourteen... I found a friend who knew a professional, I got a call with them. I talked to them. They said it might be dyslexia.*

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**Participant 5** *Only when I was... sixteen, one of my English teachers actually noticed and said that I might have dyslexia because she saw that I had difficulties with reading. And I explained to her what I was going through... and she's not a professional... but as somebody who has experience with this type of stuff, she said that I have dyslexia.*

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**Participant 6** *I self-diagnosed it at the age of seventeen... But they (teachers), I think they don't know what dyslexia is... Since my classmates weren't that good*

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*at English, the contrast wouldn't be... very large. And the teacher could notice that I read, erm... slower, not correctly. I didn't have anything that might show that I have reading or writing problems. Because I was one of the good students in the class even with my dyslexia, that was the problem.*

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**Participant 7** *(About telling her son) I sat down with him. He was 10 years old, I think.*

**(Parent)** *And I said, "Listen, what I think you have is called dyslexia and it prevents you from being able to read properly. And I said to him, "God has given you this gift. And depends on what you do with this gift. Do you open it up? Do you discover it? Or do you hide it?". But they (teachers) had no idea. The school had no idea about dyslexia is, I couldn't even explain it to them. I ordered a book from Israel, so I could take it to this school. I did and they tried to help, they were sympathetic, but they didn't have the tools to use, they didn't know how to deal with a child who had dyslexia. They had never even heard of it.*

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As stated by Schulte-Körne (2010), it is essential that students be aware of their condition to be able to deal with it. The fact that only one high-school EFL teacher was informed enough to talk about dyslexia with their student signifies the fact that English teachers working in Armenian schools are either unaware of the existence of dyslexia, do not believe in it or have a certain idea of what dyslexia is but cannot identify it in their students. Either way, the gap in teacher knowledge of dyslexia can be detrimental for the students, who should not be required to self-diagnose, be diagnosed by parents, or have tutors to detect their dyslexia years after the students first went to school (Washburn et al., 2011; 2014). The findings of the study clearly illustrate the need for more inclusive education training for

Armenian EFL teachers, specifically – training that will aim to both raise teacher awareness of the learning disabilities and equip them with tools for teaching students with the LDs.

#### **4.1.2.2. Teacher Attitudes**

In some respects, students with dyslexia are bound to perform worse than their peers due to 1) the nature of the disorder that directly affects reading and writing; 2) the school curricula, which are not typically designed with the needs of such students in mind. Being different alone can cause stress for a child in an educational environment, and how well such a child is integrated into the learning process is primarily related to the teacher's attitude toward them (Hornstra et al., 2010). Whether Armenian EFL teachers know of dyslexia, their treatment of students with reading and writing difficulties must not be biased and different from how they treat the rest of the class, i.e., with respect and understanding.

However, the results show that most of the study participants were at times labelled as *weak*, *lazy*, and *stupid* or were told to do better by their English teachers. The case of Participant 7, on the other hand, demonstrates that such biased attitudes even extended to the level of the Ministry of Education. Of course, not all the findings were negative in their nature. Participant 1, for example, could not recall instances of biased treatment from any of her teachers. Participant 2 noted that English teachers were better in comparison to teachers who taught other subjects, and Participant 4 pointed out that her high school English teacher was the first to not criticise or label her because of her poor performance in reading and writing. Table 3 below presents the answers of the participants concerning the question of how they thought they were perceived by their EFL teachers, how they were treated on a day-to-day basis, as well as Participant 7's attempt to make a change by going to the Ministry of Education.

Table 3. Participants on teacher perceptions and attitudes.

<b>Participant 1</b>	<i>(About if there was bias towards dyslexia at school) I guess at my school, maybe not. They wouldn't treat a dyslexic person very differently, they would actually encourage them to overcome the challenge.</i>
<b>Participant 2</b>	<i>I think maybe they thought I was a weak student because we had other students in my class who didn't read well or write very well too... English teachers were always... ok, not always, but... they were mostly better than others... in my opinion... When I compare them to other teachers of Armenian or math, for example, they were more, like... friendly, relaxed...</i>
<b>Participant 3</b>	<i>Some of them were quite mean, actually... I was really bashed for it at school. They (teachers) were like, "How come you speak fluently foreign languages but you really cannot write?". They were, like, "This makes zero sense. What is wrong with you?". Bullying a child or being harsh to them and saying, "You're not practising enough, your reading skills are so horrible for your age" ... Because I heard all of that. And it was so hurtful because I was actually practising a lot, a lot.</i>
<b>Participant 4</b>	<i>Before ninth grade, pretty much all of the teachers perceived me as being lazy and not doing the homework, etc. And then I went to high school and thankfully, the teacher who was leading the class, she was the English teacher, and she knew I was good at it... So, when it came to reading, I talked to her, I said, "I have a problem". And... she was actually the first teacher who didn't criticise me for it... Except for that English teacher in</i>

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*high school, everybody else was pretty sceptical about it. I was getting judged and blamed, and they were like, "You're lazy for not doing it".*

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**Participant 5** *They would call you names in front of the whole class. While you're reading, they're like, "Okay, you need to read more, you're lazy, you're stupid". Even, like... words like that.*

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**Participant 6** *In elementary school, my teachers sort of tried to help me... Everyone, thinks that this is because you... are not a hard-working person or I don't know... you're lazy.*

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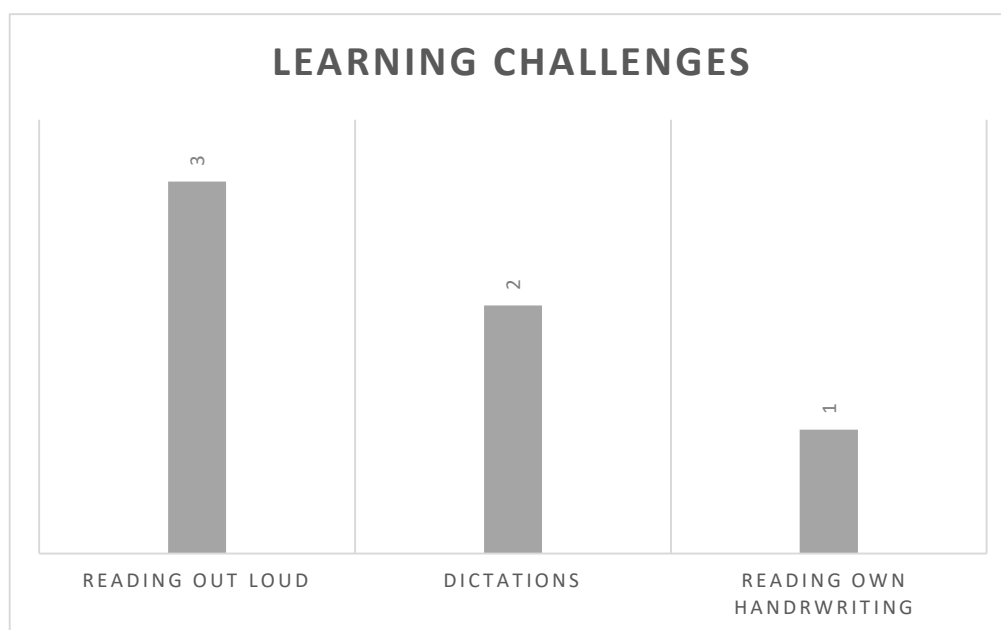
**Participant 7** *I went to the Ministry of Education, and I said, "Listen, my son is not the*  
**(Parent)** *only kid in Armenia who has a learning disability. Why not address this, why not have special teachers, or retrain teachers to identify these kinds of things. And people said, "Oh, he can't learn, don't even bother. He doesn't have the capacity.*

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Dyslexia is often co-morbid with psychological and mental disorders, such as depression, ADHD, anxiety, etc. (Schulte-Körne, 2010). Labelling students with dyslexia can not only hinder their academic progress by reducing motivation and lowering self-esteem but may also significantly exacerbate their mental health conditions, should there be any. As noted by Hornstra et al. (2010) and Richardson (2021), *destigmatising* dyslexia is one of the most crucial steps when integrating dyslexic students into classrooms, so it is obvious that negative remarks and explicit insults can have quite the opposite effect on the students and can undermine their academic performance and motivation. This notion is further discussed by Bodnar (2015), who states that teaching dyslexic students should be based on the concepts of positive scaffolding and support, often combined with the integration of a reward system, which is the opposite of what was described by some of the interview participants. It is great

that not everyone had had a completely negative experience at school, however, the findings are still rather concerning. In addition, the unwillingness of the people at the Ministry of Education to listen to a parent of a dyslexic child is another issue, which can, in fact, be the root problem of the biased attitudes in schools.

#### 4.1.3. Classroom Activities



*Figure 4. Classroom challenges of dyslexic students.*

During the interviews, the participants were asked to discuss some of the most challenging activities and experiences they had ever had while learning English. As presented in Figure 4, most of the answers were not directly related to the process of learning English but rather to the classroom activities implemented by the EFL teachers – specifically, the reading out-loud activities and dictations. Only one participant, Participant 4 mentioned that what she struggled with most with was reading her own handwriting.

##### 4.1.3.1. Reading Out Loud

As reading is one of the primary skills affected by dyslexia, it is not surprising that activities involving reading out loud or reading in front of others may be stressful and even counter-productive for people with dyslexia. Three of six participants mentioned reading out



loud as one of their primary sources of stress during the school years and explained how it affected and hindered their learning process. The research findings reveal that such activities were a cause of anxiety for Participants 3, 5 and 6, and exacerbated their dyslexia symptoms even further. Participant 6, in addition, discussed her method of avoiding or “hacking” the reading out loud activities – learning the texts by heart and pretending to read when asked by the teacher (see Table 4 for more detailed interview excerpts).

*Table 4. Participants on reading out loud.*

<b>Participant 3</b>	<i>I started developing anxieties, actually. I think I developed a social anxiety because of my reading classes, because I was forced to read out loud in the class. And obviously, I was not doing a good job. Whenever I was nervous, it was becoming, like, four times worse... When I'm reading alone in my room, my dyslexia is less displayed. Whenever it's, like, me reading in my head, not out loud. Out loud is the worst part.</i>
<b>Participant 5</b>	<i>In school, when you are reading in front of the whole class, you're already, like, a little bit anxious, you're insecure. And while that's stressful, it gets even worse, you can't see what's happening.</i>
<b>Participant 6</b>	<i>For me... the worst thing was that someone during the class time asked me to read... It was something that I didn't want to share with others. And everyone tried to make me with, “Hey, start to read,”. This is difficult for me... I learned by heart, the text. I could read but at that time, I could look anywhere because I knew the text by heart. And it was easier to learn by heart than look at the words because each time they sort of mislead to the wrong place... Physics was one of my favourite classes. But it was very hard when I wanted to participate during the</i>

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*class because I wanted to go to the blackboard to write problems, but at the same time I knew – if I went, I would need to read the problem description. And I sort of didn't participate... We have psychologists, I don't know why. One of them replaced one of our teachers, and during the class, she noticed that I don't want to read... And she made me read. This was the worst experience with reading. And this is about not only English. The whole school staff should be aware and should not put a student in that situation. You keep it for all your life. You can't forget that moment.*

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Constant stress can hardly be considered a part of a sound educational process, and the findings demonstrate that a seemingly harmless activity such as reading in front of the class can, in fact, be harmful to a dyslexic student's mental health and self-esteem. As noted by Schneider and Crombie (2012), it is crucial to create opportunities for students with dyslexia to demonstrate their abilities rather than situations in which they are confined by their learning disability and are bound to perform worse than their peers. Moreover, even when reading or writing, students with dyslexia should be assigned smaller and fewer texts when compared to the rest of the students. As stated in some of the responses, anxiety or fear can make dyslexia symptoms worse, meaning that reading out loud activities can, in fact, be counter-productive for such students and only result in their humiliation and disengagement from the learning process. The case of Participant 6 further demonstrates how the fear of reading in front of peers can significantly reduce student participation even if they are eager and willing to partake in most of the class activities, and that the stress from such activities can stay with a person for life.

#### 4.1.3.2. Dictations

Two of the participants mentioned dictations as one of the most stress-inducing and ineffective classroom activities for students with dyslexia, which similar to the case of reading out loud activities, was not surprising due to the nature of the activity. Participant 1 reflected on her experience of writing dictations in relation to the speed of her writing, stating that she did not have the sufficient writing skills to keep up with the rest of the students, while Participant 2 stated that dictations significantly lowered her grades in all linguistic subjects (see Table 5 for more detailed interview excerpts).

*Table 5. Participants on dictations.*

<b>Participant 1</b>	<i>When we were writing the... erm, I forgot the word ... dictation! Yeah, dictations. I was usually lagging behind most of the class. I usually asked the teacher to stop so that I can keep up with the others. So basically, those were my nightmares, I hated them so badly... In my opinion, dictations are the worst thing, so I will be radical, I would say abolish them all.</i>
<b>Participant 2</b>	<i>We used to write dictations of, like, new words. That was bad... I think my grades, they were bad because of dictations. And not just in English, with all languages, it was the same.</i>

As noted by Wadlington et al. (1996), penalising spelling errors is not effective when working with students with dyslexia as it can lead to discouragement and loss of motivation. And indeed, learning disabilities such as dyslexia are not the students' fault, nor are they a result of their laziness or poor academic involvement. Reducing grades for something entirely out of student control, at best, seems a poor educational practice; at worst – it is a way to

significantly deteriorate and undermine a student’s motivation and performance, which can potentially affect all the spheres of their lives – personal, professional, academic. It is not to say that spelling activities are not necessary or should not be focused on – even with the current means of digital spellchecking, a number of settings such as TOEFL iBT or IELTS require that students be able to spell and write correctly; in addition, the spelling of English is highly unpredictable and requires a lot of practice to be mastered (Landerl et al., 2013; Costenaro et al., 2014). The issue with dictations is that they are not an optimal spelling activity for dyslexic students for several reasons: 1) they are often graded; 2) they discriminate against students who cannot keep up with the pace of their peers; 3) they test more than one language skill, as listening is an integral part of dictations and requires additional attention.

#### **4.2. Research Question 2:**

*How do Armenian students with dyslexia facilitate their process of learning English?*

##### **4.2.1. Exposure to Spoken Language**

When speaking about the most effective learning methods, three of the six participants named exposure to spoken English as a tool that can significantly facilitate the learning process for those with dyslexia. Participant 1 emphasised the importance of oral lectures as opposed to reading assignments, while Participants 2 and 3 spoke very strongly about the benefits of exposure to audio/video-materials such as YouTube videos, films, TV shows, TED Talks, etc. (see interview excerpts in Table 6).

*Table 6. Participants on exposure to spoken English.*

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<b>Participant 1</b>	<i>I know that not everyone understands the material just by reading it... I was actually enjoying it when our teachers would tell us the material and</i>
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*not just say, "Okay, this is it, just read it. Come and tell me what have you read the next day". I was very... I was invested when they were actually giving lectures.*

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**Participant 2** *Watch movies or TV shows. I feel when you are not paying attention, you learn that way and it's easy... You don't know that you learn and then you say a word you didn't know or you say something that was not taught to you... Basically, anything that you can watch is good for you – TED Talks, bloggers, tutorials... And with English especially, there is so much on the Internet that you can use. With YouTube you can find so much to help you and it can all be interesting because it's something that you like, it's your hobby.*

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**Participant 3** *So, the thing that was weird for me when I was learning English, was that in the beginning, I was doing terribly bad. Then it suddenly opened up super quickly because I started watching movies and YouTube videos in English. And when I was, like, watching and listening to it, it (information) was so much easier for me to grasp... When I started watching YouTube videos and just learning conversational English, my English level in one year became from zero to, like, 80... For people with dyslexia, I think learning grammar is useless. It's... a harsh opinion, I know, but it's from my own experience. If you want to learn English, you should learn English by listening to conversations and listening to stuff that you like, actually. I learned English from YouTubers. I enjoyed it, I liked it, and I learned English.*

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Anjum and Mansoor (2020) emphasise the importance of multimodal presentation of content when teaching dyslexic students, which is essentially the presentation of information through more than one medium, e.g., a textbook. Exposure to spoken language, in this case, is an aspect of learning that has practically no downsides. Not only does it often include authentic language, as in the case of films and YouTube video blogs, but it also ensures a great amount of comprehensible input, the importance of which has been discussed by Steven Krashen (1985). Obviously, input alone does not work magic and requires plenty of practice in output and productive skills in general, but the fact that exposure to language is oftentimes not associated with traditional learning and is not typically perceived as a chore is an advantage not frequent in other types learning methods. Huss et al. (2011) and Overy (2003) discuss the factor of a low level of tediousness in the context of music education when treating dyslexia, but the point stands for all aspects of dyslexia remediation and learning facilitation – if it is not perceived as a task, it is less boring and more effective.

#### **4.2.2. Use of Technology**

Technology has become a part of the 21st-century person's everyday life, and the sphere of learning and education is not an exception to the rule. The participants named different types of technology as tools for facilitating, diversifying, and simplifying learning (see Figure 5). Six out of six participants pointed out the usefulness of different spellchecking tools, such as Grammarly or the integrated Microsoft Word spellcheck. Three people discussed the benefits of Text-to-Speech applications and software, and another three spoke about their use of audiobooks as an alternative to paper or digital books. Finally, one participant discussed her unique case of audio-recorded homework as opposed to traditional written assignments.

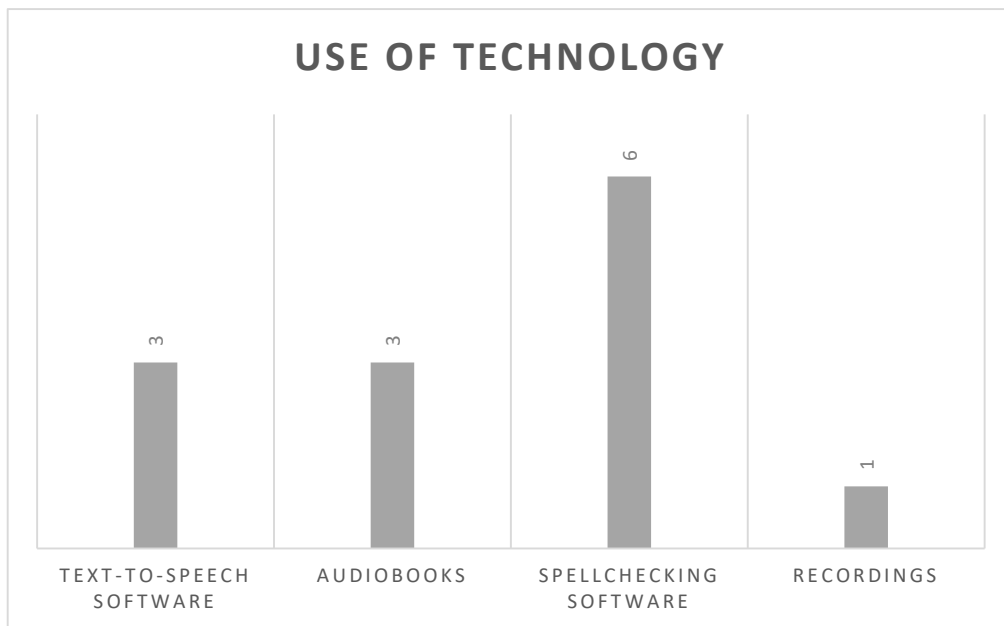


Figure 5. Technology types for learning facilitation.

#### 4.2.2.1. Text-to-Speech Software and Audiobooks

Reading extensive amounts of texts can be tedious for dyslexic students, which is why four out of six participants named text-to-speech software and/or audiobooks as some of their means of facilitating learning (see Table 7).

Table 7. Participants on text-to-speech software and audiobooks.

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**Participant 2** *There is an app... not an app, like, software for the computer. It reads the text for you. Any text that you have, it can read it...And ... I like the audiobooks. I have an app in my... on my phone, and I listen to them often.*

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**Participant 3** *Audiobooks. Yes, I do all my readings like that. And whenever I'm assigned to read something, I just listen to the audiobook. It's less stressful for me.*

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**Participant 5** *There are, like, a lot of places on the Internet where you can copy and paste the text and it will, like, read aloud for you. So, I just do that and*

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*then follow the text while listening. It's also easier to remember like that, and you go through the text much faster.*

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**Participant 6** *I use my computer. I have that option, which reads for me. I even don't know how I survived till that opportunity to make your computer read for you... And the best thing that helped me was audiobooks. I hated books... for obvious reasons but when I explored the audiobooks, I understood that I'm really interested in books. It's a really interesting way of not watching something, just listening. Maybe for someone else it is reading but... you're listening to the emotions, and I listen to English audiobooks because I can't find Armenians that much and Russian as well.*

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Overall, text-to-speech applications can be an excellent tool for students who struggle with extensive texts, and, as discussed by Anjum and Mansoor (2020), computer-assisted teaching is, in fact, preferable for students with dyslexia. The only issue that may arise with such software is that students need to have digital copies of all the readings, which are not always possible to find in open access on the Internet. Audiobooks, on the other hand, can be a great substitute for the traditional paper-based books when studying literature and can enable dyslexic students to 1) participate in book discussion to the fullest extent; 2) learn assigned poetry by heart; 3) turn literature into a hobby the students did not know they liked.

#### **4.2.2.3. Spellchecking Software**

Six out of six dyslexic participants discussed spellchecking software as a tool for facilitating writing (see Table 8). While the vast majority found software such as Grammarly or Microsoft Word helpful, 1 participant questioned the effectiveness of such tools, stating that they are overly time-consuming and do not always correct all the mistakes.



Table 8. Participants on spellchecking software.

<b>Participant 1</b>	<i>I usually use Grammarly, that is a great tool for me. The Word actually had their spellcheck, but it wasn't the best. So far, I would say the best is Grammarly. I actually even use, like, Google Translate... like, I copy-paste the texts and then read again to double-check that whatever I wrote is what I meant.</i>
<b>Participant 2</b>	<i>Technology... technology is great, yes. Like I said, there is the software for reading texts and software for writing, like Word, you know... on the computer. I have to write for work and no one knows I have this issue because I type and it corrects me and it's all ok.</i>
<b>Participant 3</b>	<i>Grammarly is a lifesaver. Yeah... yeah, yeah. Because it points out the things, it's like, "There!"</i>
<b>Participant 4</b>	<i>when I was just learning the language, I wasn't that good at writing in English. It really helped with AutoCorrect and everything. If I misspelt a word or something, I mixed up the placements in the sentences... Now not quite because I have writing as my hobby so I don't need AutoCorrect or Grammarly or everything, but while learning it, it was pretty much one of the most helpful things, with writing especially.</i>
<b>Participant 5</b>	<i>I don't pretty much know how to spell properly. I just guess. Thank God for autocorrect, like, Word documents... like Grammarly, because that's the thing that saves me at this point. But while I'm writing, I just try to, like... stick to the words that I'm 100% sure in. because we write a lot, we read a lot for the assignments, it's easy because you don't have to concentrate on,</i>

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*“Okay, I need to spell certain words correctly,”. I can concentrate on the writing itself and not, like, on, “Oh my god, I’ve made a spelling mistake,”. It makes the process, like, easier for you and your writing better because you’re not focused on certain small things that don’t really matter at that point. It’s just all about content, not about a small spelling mistakes that you made.*

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**Participant 6** *I can use Grammarly but it will not correct all grammar or spelling mistakes... it will take me very long time.*

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In an educational context, spell-checking tools can come in handy when students present their writing in terms of content rather than accuracy. Writing encompasses a variety of skills and spelling is neither the most important one nor is the most difficult. Essays, stories, and poetry should be allowed to be written on computers and other devices that support spell-checking software and applications. Dyslexic students should be encouraged to participate in pedagogically sound writing activities as writing is a skill that can open many doors in one’s life and should be mastered at least to some level.

#### **4.2.2.4. Recording Homework**

Audio/video-recording homework as an alternative to written assignments was discussed only by Participant 6; however, the finding was included in the study for its uniqueness and as option for those who seek for another way of completing school assignments (see Table 9).

*Table 9. Participants on recording homework.*

**Participant 6** *I do my writing home tasks, like... with recordings. I don't type anything. Erm... I say thank you to my university because they sort of gave me the*

*opportunity to... show my work in 100%. I can use Grammarly but it will not correct all grammar or spelling mistakes... it will take me very long time and recording, it's easy. So, for instance, I have [subject name], I need to explain what it shows and I send the explanation by recording.*

As Wadlington et al. (1996) discussed, students with dyslexia should be allowed to present written assignments orally if the workload feels too heavy. Writing itself is not always the primary goal of homework, so, if possible, the recording option should be offered in various educational settings. Obviously, in Armenian EFL classrooms, certain changes would be necessary to enable recorded assignments: 1) a platform would have to be chosen where students would submit their audio or video files; 2) teachers would have to be willing to accept such submissions and be ready to leave digital feedback as opposed to the traditional copybook notes; 3) additional bureaucratic procedures such as permissions from principals could be expected as a requirement. However, a small rigmarole that could significantly facilitate a dyslexic student's life would be worth trying.

#### **4.2.3. The Factor of Interest**

An interesting pattern that emerged during the analysis of the interviews was the factor of interest or fun mentioned by three of the six participants. While it was noted in the *Reading Out Loud* section that stress and anxiety tend to exacerbate the symptoms of dyslexia, the opposite was revealed about the connection between learning a language and being engaged in the process. Participant 2, for example, noted that she found learning English more interesting than other subjects due to the integration of songs and stories and added that learning became easier when she was able to relax and enjoy the process. Meanwhile, Participants 1 and 3 discussed how reading for pleasure proved easier than reading for academic or professional purposes. Participant 1 spoke of how she at first did not enjoy reading but grew to like it after giving it a chance, while Participant 2 discussed how

she could read stories and poetry a lot faster than other texts, e.g., textbooks or learning materials (see Table 10).

*Table 10. Participants on enjoying learning.*

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**Participant 1** *When I actually started to enjoy it, reading became a relaxing experience for me, like for many people. But before that... I hated it. Like, reading a book was not a hobby of mine.*

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**Participant 2** *Learning English was, basically, like... more interesting. Like, the stories, the topics... There were songs...sometimes...I think my English got better at university because I got relaxed and did it for fun.*

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**Participant 3** *There was something about literature, it was so easy. Like texts, stories, poetry... I could do it in seconds. But whenever it was just, like, material that you have to know by heart, it wasn't... not doing the thing... You know, the literature part, the stories... actually, it's quite funny because people with dyslexia have this amazing, erm... imagination sense. Like, it's so easy to, like, imagine stuff, to create stuff. It closes one door, but on unlocks another.*

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Undoubtedly, student interest in learning is important in all educational settings as, to some degree, it is the primary driving force to academic success and achievement. The reality, however, is that not all learning materials are equally interesting and engaging. In fact, many aspects of learning a language can be perceived as tedious and boring – textbooks with endless grammar rules and vocabulary sets, generic dialogues that are forgotten as soon as students leave their classrooms, etc. Meanwhile, learning can be fun if the teacher is ready to explore the wants/interests of their students and design the classes choosing appropriate

materials and activities. As noted by Deacon et al. (2012) and Fink (1998), some dyslexic people are able to compensate for their dyslexia by reading extensively and intensively, meaning that curiosity and entertainment can often overpower some of the symptoms of dyslexia. Building a class in a way that engages students and does not seem a chore can be effective in teaching dyslexic students (and all students, in general), though there is a sidenote that cannot be omitted: even with the integration of literature, films, and music, grammar instruction to dyslexic students should remain *explicit* (Sudek and Encinas, 2019).

### 4.3. Research Question 3:

*What could be done to make the EFL experience more beneficial for students with dyslexia?*

#### 4.3.1. Advice to Teachers

When asked what they would recommend to EFL teachers working with dyslexic students, the study participants came up with answers quite similar in their nature (see Table 11). Most of the participants recommended teachers to be more attentive towards students who tend to perform worse in reading and writing assignments than their peers and try to figure out what could be the underlying issue in their performance. Participants 2, 3, and 7 noted that it is important for teachers to learn more about such issues and participate in trainings, while almost everyone added that being understanding towards dyslexic students is a must and necessity for a sound classroom environment.

*Table 11. Participants on teacher recommendations.*

<b>Participant 1</b>	<i>I don't know, like, maybe be a little bit more attentive to the students to spot that on.</i>
<b>Participant 2</b>	<i>Try to learn more. If you think someone has an issue, talk to them or the parents. Try to understand what's their problem.</i>

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**Participant 3**

*If the teacher notices that the student is doing well, however, she or he has some problems with writing, it already should ring a bell and be something to be concerned about. Because at that age, children... it's normal for them not to know what's happening... So, it would have been amazing if some teachers underwent some trainings so that they would be aware to detect children who have some issues. Because, like, dyslexia is so common. A lot of people have it, and some people don't even know that they have it...I. Just being more understanding, I think. Like, just trying to... put yourself in the person's shoes... And be a bit... a bit more understanding towards the spelling mistakes...The content of the essay written by a dyslexic person, and a person who isn't dyslexic is basically the same. But those errors are there. So, I would just really recommend being more understanding and not paying attention to those minor details.*

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**Participant 4**

*I think I would just really love it if teachers just paid attention more and didn't get upset because a student couldn't read the text out loud but maybe just had a private conversation with them... ask them why. Maybe it might be because the kid didn't have the time or was lazy and didn't do more but there may also be an issue that they're facing. So, teachers should just, like, take it personally, because it's their students, they're responsible for them... They're teaching them, it's a huge role in their life. So... it's good if they pay attention, if they try to work on it with the students, try to figure it out together... Usually, we are just as*

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*confused, we know we have a problem, we don't know where it comes from.*

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**Participant 5**

*I would, like, recommend to first talk to the students, figure out what the problem is. Just talk and see where the problem is actually coming from. And try to work with the student. And it's good to have somebody as an authority... it's good to see somebody that you trust try to help you with it.*

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**Participant 7**

**(Parent)**

*I think that there have that the Ministry of Education has to identify certain learning disabilities, for lack of a better word, and train special ed teachers, or speech therapists or whatever, to help those children so that we don't, you know, just throw them off and say, go be a farmer.*

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The participant answers demonstrate that, while most of the students wanted and needed to rely on their teachers for support, the teachers were not fully aware of their issues and were not understanding and supportive enough. The feeling of trust and amicability is important when building a good teacher-student relationship, and some of the answers suggest that students did see their teachers as authorities (in a good sense) and people responsible for their education. The statement “*we are just as confused*” by Participant 4 demonstrates that dyslexic students understand that teachers may also be perplexed as to why their teaching is not effective; however, is important that teachers put their students first and deal with frustration by finding solutions rather than blaming the students.

#### **4.3.2. Classroom Arrangements**

The study participants discussed what arrangement in the classroom could make learning more beneficial and productive for them. It should be noted that the findings in this

section are the most miscellaneous, as the participants mostly spoke of different things. Participants 1 discussed the option of dyslexic children writing separately from their peers due to the slow speed of their writing, and additionally spoke of the possibility of integrating video materials into lessons. Participant 2 spoke of how the blackboard would often be cleaned before she managed to copy the content, which is again related to the speed of dyslexic person's reading and writing. Participant 3 spoke of how the explicit textbook presentation of the grammar points did not work for her, while Participant 5 noted that some of the practices carried out by her high school teacher and her tutor facilitated her learning – a lack of reading assignments, slower pace of completing the tasks, a bigger number of listening assignments (see Table 12 for more detailed interview excerpts).

*Table 12. Participants on better classroom arrangements.*

<b>Participant 1</b>	<i>Maybe when teachers have that sort of issue, when they have a kid who is writing that slow, maybe they need to write separately from the others... You know what, I think our schools might even adapt video content, and basically even try to implement them. Because I know that not everyone understands the material just by reading it. Some people need to hear it, some need to visualize it.</i>
<b>Participant 2</b>	<i>They would write the rules on the... blackboard, yeah? And you had to, like, write in your... notebook and learn the rule like that. And often I didn't understand or didn't, like, manage to write it. Imagine you write something, and they clean it before you finish. And don't make students read all the time, like... include other things too, fun things with movies and discussions and games.</i>



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**Participant 3** *Whenever they were showing me a text in a book, it was doing nothing for me. And the teachers were usually only showing, like, the grammar rules. They're like, "Okay, this is grammar. Now you know English", and that was doing basically nothing for me.*

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**Participant 5** *I had a tutor for English around the age of eleven-twelve. That teacher was the one to kind of make me comfortable with the language. She would take extra time with my writing, extra time with reading just to make me comfortable with myself in the language. So, I think that helps a lot. And also, after that, only in high school, the only teacher... I talked already about her, she just didn't make me read in front of the class... I talked already about her, she just didn't make me read in front of the class. She would just give me, like, listenings and writing assignments or tests instead of reading assignments. So that was pretty much all the things that were, like, done to help me with the condition....*

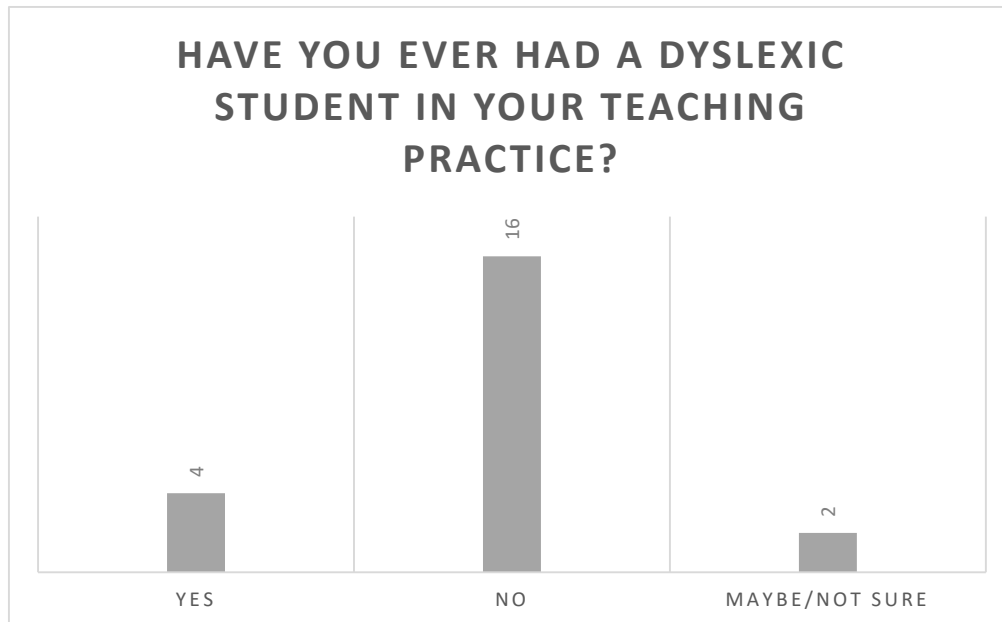
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The points mentioned by the participants are, in fact, mostly supported by research. Wadlington et al. (1996) state that dyslexic students should be given longer time to finish assignments and should sit close to the teacher in case they need to clarify points or ask for assistance. Meanwhile, the case with the blackboard that was cleaned too soon indicates that the teacher was not aware or did not care that a student of theirs was taking longer time to copy the grammar rules into their notebook. Participant 5 was granted some of dyslexia accommodations such as listening exercises instead of reading ones during tests, etc., which is preferable when working with dyslexic students. Participant 3 spoke negatively of explicit instruction; however, such instruction is recommended when teaching dyslexic students, meaning that the issue was in the *manner* of the instruction, rather than the type.



*General* understanding means being more or less aware of what dyslexia is and knowing some of the symptoms, so the fact that this was the most common answer among the participants could be considered quite a positive finding.

#### 4.4.1.2. *Dyslexic Students in Participant Teaching Practice*



*Figure 7. Dyslexic students in the practice of MA TEFL participants.*

One of the questions of the survey focused on was whether the participants had ever had a student with dyslexia in their teaching practice. Sixteen participants did not think they had ever taught dyslexic students, four people answered positively and the remaining two added their own options to the answers, which could be summarised as “maybe” and “I’m not sure”.

While it is great that four people were able to identify or were informed that they were teaching students with dyslexia, the issue with the most common answer “no” is that it is possible that the participants did not know they had had dyslexic students in their practice. This is not a hypothesis that is currently possible to confirm or debunk, but rather a possibility that should be taken into consideration during the analysis of the results.

#### 4.4.1.3. *Inclusive Education Training*

Another question of the survey aimed to estimate whether the participants had ever had any type of training in teaching students with dyslexia. The MA TEFL programme does not currently have an inclusive education course; however, it was possible that the participants could have had other types of teacher training prior to their enrolment into the programme. And indeed, while seventeen participants stated that they had never been trained to teach students with dyslexia, five stated that they had had a prior training

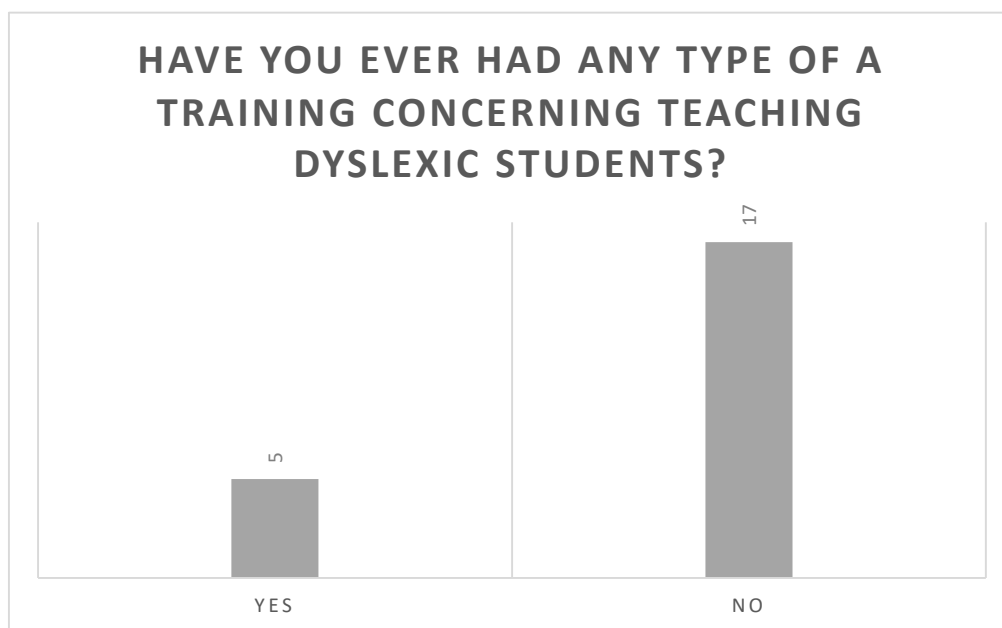


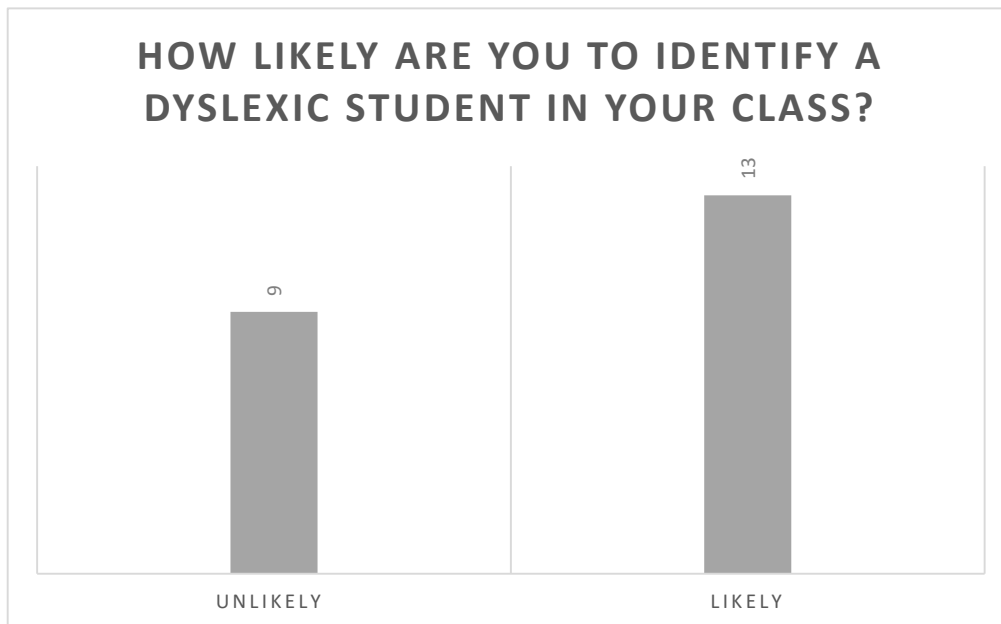
Figure 8. *Dyslexia training among MA TEFL participants.*

Overall, the negative findings of this question could be expected as teacher trainings do not typically focus on inclusive education. In fact, what was surprising was that five people had had trainings in teaching dyslexic students in the first place, even though it is hard to tell how effective or thorough they were.

#### 4.4.1.4. *Identifying Dyslexic Students*

Trained or not, the participants were further asked to state how likely they were to identify a student with dyslexia while teaching. More than half of the participants (12 people) estimated their chances of recognizing a student with dyslexia as “likely”, while 7 other participants opted for the “unlikely” option of the survey. A total of 2 participants estimated

their chances as “very unlikely”, while only 1 person was sure enough of their abilities to select the “very likely” option of the Likert scale

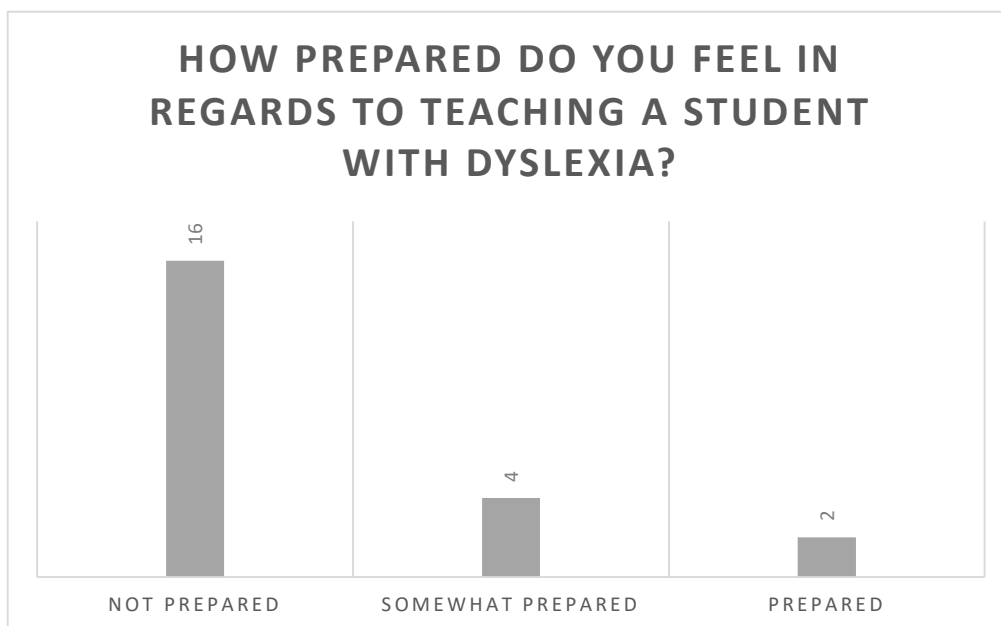


*Figure 9. The likeliness of MA TEFL participants of identifying dyslexic students.*

As demonstrated by the interviews of dyslexic participants, it is vital that teachers be ready to identify the signs of dyslexia and tell the students or their parents for them to seek further consultations. The findings show that the majority of the participants believed they would be able to identify a dyslexic student but the difference in the numbers (13-9) is not as significant as one would like it to be.

#### **4.4.1.5. Participant Preparedness**

An equal number of 8 students estimated their preparedness to teach students with dyslexia as “very unprepared” and “unprepared”, while 4 people opted for the “somewhat prepared” option of the Likert scale. A total of 3 people considered themselves “prepared” to work with students with dyslexia; however, the “very prepared” option of the scale was not selected once.



*Figure 10. Participant preparedness levels.*

The fact that the majority of the participants identified their level of preparedness as “not prepared” seems the most important finding of the survey as it practically answers the 4<sup>th</sup> research question that investigates the preparedness of the MA TEFL students in regard to teaching learners with dyslexia. However, people sometimes tend to underestimate their knowledge and abilities when faced with something challenging and unfamiliar, and it is important to have a wholistic approach when reviewing the results of the survey.

#### **4.4.1.6. Participant Actions**

- *What steps would you take if you suspected one of your students had dyslexia?*

The answers as to what the participants would do if they suspected their student had dyslexia can be sorted into four categories (see Figure 11): conducting research, referring the child to the principal or a psychologist, changing the type of instruction and contacting the parents. Overall, the answers were similar and easy to turn into quantitative data; however, some of the participants elaborated on their answers and wrote quite extensively on their

hypothetical actions. For this reason, a number of participant quotes were included in Table 13 (see below).

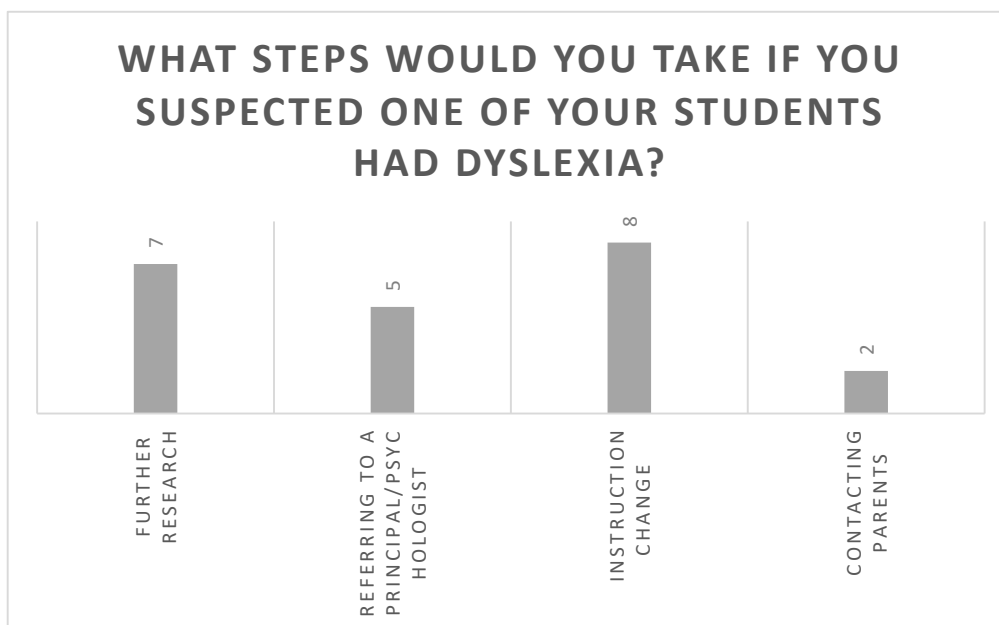


Figure 11. Steps MA TEFL participants would take when suspecting dyslexia in a student.

Table 13. MA TEFL participants on actions when suspecting dyslexia in a student.

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**Participant 2** *I would refer to the principal and/or school psychologist. However, I would very much love to know what to do myself (maybe through training, courses, etc.).*

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**Participant 5** *Probably would use audio books in the curriculum instead of readings.*

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**Participant 10** *First, I would talk to the parents to find out whether they are aware or whether the child has been diagnosed with dyslexia. Next, I would try to help the student with studying aids dyslexic students need.*

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**Participant 11** *I would immediately contact his/her parents. Maybe they aren't aware of their child's problem. I'll try to do activities which are understandable and digestible for him. I'll constantly ask his feedback. Will take his needs into account. It's very tough to imagine what exact steps I would take, but one thing is clear: I would do everything to make his learning process easy and fun. Won't let him struggle. I remembered a movie entitled "Like Stars on Earth". The movie was so gripping! Actually, I had participated in a teacher training program about inclusive learning and the trainers had advised us to watch that movie. I strongly believe that every child is special and needs to be treated in a special way.*

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**Participant 14** *I did a lot of research and tried to apply all skills, activities, techniques I could find. I also watch several videos of other educators and tried to do what they did in my classroom. I even tried to talk to parents and explain that the child is having a difficulty reading/writing etc. Now if I had to teach a child with dyslexia, I think I would go and find a professional who actually knows how to work with dyslexics and ask for help (along with doing yet another research).*

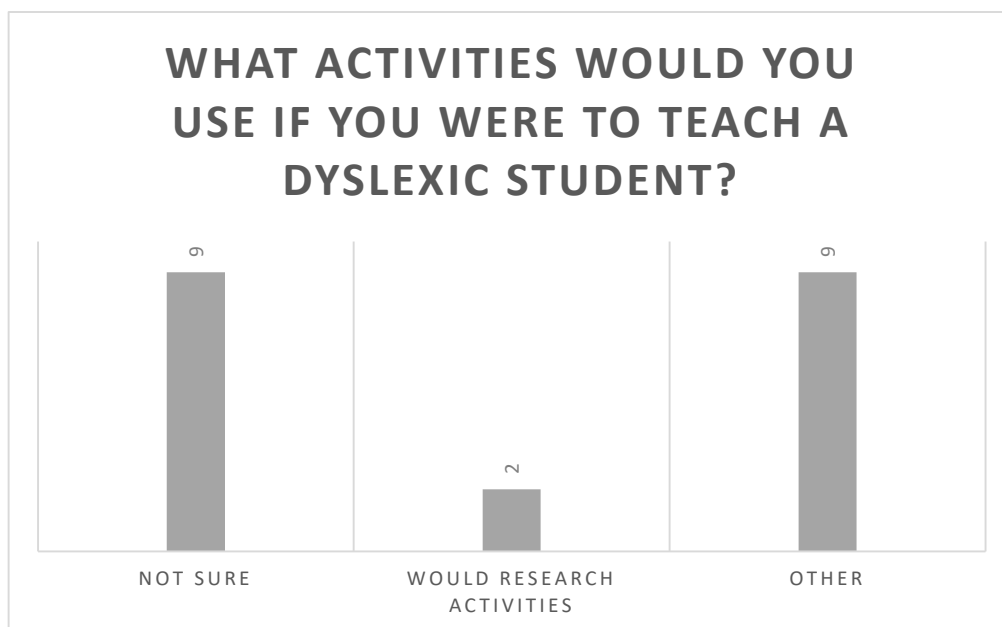
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As the results show, most of the participants would either consider additional research and/or training in teaching dyslexic students or would seek help from psychologists and other specialists. This is an indication that the participants are not confident in their current knowledge and would need additional information and guidance to teach students with dyslexia. Changing instruction would definitely be a sensible thing to do as well, as even



without any training, it is clear that in certain aspects, dyslexic students cannot perform the same way as people who do not have dyslexia.

- *What activities would you use if you were to teach a dyslexic student?*



*Figure 12. Activities MA TEFL participants would use when teaching dyslexics*

Eleven participants out of twenty-two answered that they either did not know what activities they would use with dyslexic students or that they would research activities should the opportunity ever present itself (see Figure 12). Some of the participants, however, elaborated on their answers and described their hypothetical actions when teaching a dyslexic student. For example, three participants either directly mentioned the multisensory method of teaching or discussed activities which are considered a part of it. Six participants, on the other hand, noted that they would primarily work on the aural and oral skills of their students, decreasing the amount of the reading assignments (see Table 14).

*Table 14. MA TEFL participants on activities for dyslexic students.*

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<b>Participant 3</b>	<i>Decrease the amount of reading assignments for the child. Support the child by providing separate types of texts (maybe make the spaces between the rows wider). Provide psychological support and encouragement. Don't ask the child to read in front of everyone.</i>
<b>Participant 5</b>	<i>I would use tablets and audiobooks to avoid actual reading and writing</i>
<b>Participant 10</b>	<i>I'd try finger tracing, sight words, printables and activities, sand writing, etc.</i>
<b>Participant 11</b>	<i>I would implement speaking activities more than writing tasks. Storytelling would be an indispensable part of my classes. Of course, I wouldn't overcorrect his mistakes. Indubitably, I'd constantly motivate him to learn and would be open and willing to help him or her.</i>
<b>Participant 12</b>	<i>I would start with speaking and listening. To help them with phonology, we would watch English movies with subtitles and then practice the pronunciation of individual phonemes/words, after listening to them.</i>
<b>Participant 13</b>	<i>General phonological awareness activities e.g. letter/sound flashcards, coloring, tracing, matching, word rhymes, activities that connect the visual appearance of the letter/words with the sound.</i>
<b>Participant 14</b>	<i>I'd avoid giving actual reading tasks, instead provide more alternatives like audio books.</i>
<b>Participant 18</b>	<i>Listening and speaking, multisensory activities.</i>
<b>Participant 19</b>	<i>If reading is impossible for dyslexic students, I might work on their oral skills instead.</i>

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The results demonstrate that the majority of the participants had a general understanding of what practices and activities should be implemented when teaching dyslexic students. In fact, the multisensory activities mentioned three times by the participants are considered the primary way of teaching students with dyslexia (Bodnar, 2015; Costanero et al., 2014; Sudek and Encinas, 2019), which is an interesting revelation. Be this a teacher's intuition, or a result of a prior training, some of the participants had quite an accurate understanding of what would work best with dyslexic students – emphasis on speaking and listening, tracing activities, positive scaffolding, etc.

## CHAPTER FIVE: CONCLUSION

This chapter overviews the recommendations developed after the analysis of the study's findings, discusses the limitations and delimitations of the paper, and suggests ideas for further research. The recommendations presented in the chapter are, obviously, not an exhaustive list of all the things that can be changed or improved to help students with dyslexia, but rather a summary of the findings that are similar in their nature or close in their topic.

### 5.1. Recommendations

#### 5.1.1. *Learning versus Discriminating*

The EFL experiences of the participants of the study were often defined by the attitude of their teachers and the methods they were taught with during their time at school. The study results revealed that Armenian EFL teachers are not equipped with enough knowledge to identify and teach students with dyslexia, which is undoubtedly an issue that should be tended to as soon as possible. Teacher trainings/workshops in inclusive education are one way to go about the situation; however, it is crucial that each teacher be responsible for their own professional development and learn more about the types of students they may encounter in their classrooms. Moreover, discriminating against students for performing worse than their peers and offending them should be an absolute taboo – it goes against all the ethical aspects of the profession and is counterproductive in the long run. Understandably, teachers can get frustrated when unable to succeed with a particular student, but it is important that they remember their frustration is secondary – it is the students who experience the symptoms first-hand, and it is the students who need support and help.

### **5.1.2. *Creating Opportunities***

A rather famous quote (incorrectly attributed to Albert Einstein) states that once a fish is judged by its ability to climb a tree, it will live its life believing it is stupid. Einstein or not, the point is quite relevant regarding how students with dyslexia are integrated into classrooms and how they are expected to perform among their peers. In one way or another, many classroom activities are based on reading and writing, and people with difficulties in those particular areas face the risk of feeling insufficient and less capable than those around them. Creating opportunities in which dyslexic students can prove their potential and perform their best is essential for teachers who work with such students – it includes giving students the freedom to present homework in a way that works best for them, focusing more on listening and speaking activities, allowing students focus more on topics that are of interest to them and allowing the use of certain devices and gadgets necessary for the facilitation of the learning process. Creating opportunities can refer to special accommodations, too – it is only natural that students with dyslexia need more time to finish certain assignments or more support from the teacher.

### **5.1.3 *Utilising the Factor of Fun/Motivation***

Ideally, learning should be fun and exciting at all times and for all types of students. However, it was revealed that for dyslexic students, the factor of interest plays an even more significant role than for everyone else. Choosing activities that do not feel like tasks or dull, tedious chores can be a potentially working strategy for students with dyslexia. There are many ways in which traditional English classes can be diversified – integration of films and songs, integration of interesting discussion topics, creative art projects, games, etc. Interest and curiosity are an integral part of every learning experience and learning at school should not be perceived as an unpleasant necessity. As the literature and findings show, willpower is

a strong tool that can help dyslexic students battle their learning disability to a certain degree, and not making use of it is wasteful and counterproductive.

#### **5.1.4. Adding an Inclusive Education Course to the MA TEFL Programme**

Teaching students with learning disabilities can be a daunting task for any teacher, but more so for one with little or no teaching experience. MA TEFL is one of the most prestigious and well-known TEFL programmes in Armenia, yet inclusive education has not been made a part of its curriculum. Learning disabilities such as dyslexia are discussed in limited contexts, not enough to equip the students with inclusive education knowledge. As the results demonstrate, MA TEFL students do not feel prepared regarding teaching students with dyslexia. Even though some of them have enough knowledge to teach dyslexic students more or less effectively, the reality is that the programme does not prepare its students for the potential challenges that may arise when working with special-needs students. Obviously, adding a course to the programme requires all types of resources, which are limited and not always available for every purpose. Therefore, the recommendation of this paper for the programme is to *consider* adding a course that would teach inclusive education should there ever be enough resources and time.

#### **5.2. Limitations and Delimitations**

Several limitations emerged during the course of the study. First and foremost, the time constraint significantly limited the scope of the thesis, allowing enough time to find and interview only so many participants. Second, the case study results should not be generalised to entire populations, meaning that the findings of the paper reveal the truth only from the point of view of the participants and do not necessarily reflect the objective reality when it comes to the issue of dyslexia in Armenian EFL classrooms. Finally, one of the instruments – the survey that was sent to the MA TEFL students – did not allow the researcher to ask the participants to elaborate on their answers and, consequently, offered somewhat limited data.

The study also includes several delimitations. There are many things students with dyslexia could discuss in terms of their experience of learning English in Armenia; however, the paper mainly focuses on the points relevant to answering the study's research questions. The English proficiency level of the participants was another delimitation that was necessary to narrow down the requirements during the recruitment procedure. In addition, the survey setting was constrained to the MA TEFL programme, which was also a delimitation choice made during the study.

### **5.3. Implications for Further Research**

Dyslexia is not the only disorder or learning disability that can have an adverse effect on a learner's life. Armenia has a long way to go in terms of inclusive and neurodivergent-friendly education, and many aspects of it are yet to be researched and investigated. Disorders such as ADHD, Tourette Syndrome, autism, and many others are as relevant and present in classrooms and schools as dyslexia, and all of them should and need to be researched within the context of Armenian education. But not to go far, dyslexia itself is a huge topic that cannot be encompassed within the limits of one paper, let alone a case study. Further investigation of dyslexia in the Armenian EFL classrooms is necessary to gain more information about the topic and find solutions to help students with dyslexia and their teachers. For example, having the EFL teachers as the main population of interest can bring another perspective to the issue and reveal new findings that were overlooked when speaking to the student population.

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## Appendices

### Appendix A (Interview questions)

1. At what age were you first diagnosed with dyslexia and by whom?
2. Can you describe dyslexia from your own point of view? How does it manifest itself?
3. Have you ever been tested for dyslexia?
4. Have you received any treatment for dyslexia? If yes, what kind of treatment was it?
5. At what age did you start learning English?
6. What was your English teachers' attitude towards you as a student with dyslexia? Did they know?
7. What difficulties did you have when learning English?
8. What do you wish were different in English classrooms during your time as a student?
9. What methods and techniques of learning English would you recommend to other students with dyslexia?
10. What techniques/technology helped you with your dyslexia?
11. What would you recommend to EFL teachers who deal with students with dyslexia?

\*Follow-up interview questions are not included.