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Master's Dissertation/
Trabajo Fin de Máster

**ARE ENGLISH TEACHERS
READY TO ASSIST STUDENTS
WITH DYSLEXIA? DESIGN AND
IMPLEMENTATION OF A
TEACHING TRAINING
WORKSHOP TO CLARIFY
MISCONCEPTIONS**

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SUMMARY

A workshop proposal for Primary and Secondary English teachers is presented in this Master's Dissertation. Moreover, its implementation is also analyzed. The workshop is about dyslexia and has the dual purpose of promoting the consideration of learning difficulties of students with dyslexia to design the lessons, and fostering the adaptation of materials and evaluation procedures to students with dyslexia. A literature review from books and databases such as Google Scholar and Redalyc is previously necessary to clarify key aspects of dyslexia. Furthermore, before designing the workshop an analysis of knowledge and beliefs about dyslexia on the part of the English teachers who participate in the study is carried out. A Google Form with two questionnaires is used to analyse it; specifically, the first questionnaire is about sociodemographic aspects and it has been designed for this MA Dissertation and validated by Dr. Daniel Madrid Fernández; the second questionnaire is about knowledge and beliefs about dyslexia and was designed and validated by Soriano-Ferrer and Echegaray-Bengoa (2014, pp. 91-110). From the design and implementation of this workshop, it is concluded that in-service teacher training is completely necessary.

Key words: dyslexia, in-service teacher training, workshop design.

RESUMEN

En este trabajo fin de máster se presenta una propuesta y análisis de la implementación de un taller de formación para el profesorado de inglés, el cual se centra en la dislexia y tiene la doble finalidad de promover la consideración de las dificultades de aprendizaje de las personas con dislexia en el diseño de las sesiones y potenciar la adaptación de los materiales y procedimientos de evaluación para el alumnado con dislexia. Para poder diseñar el taller previamente se realiza una búsqueda bibliográfica actualizada para clarificar aspectos claves de la dislexia a partir de libros y bases de datos, como Google Académico y Redalyc. Asimismo, previamente al diseño del taller se realiza un análisis sobre los conocimientos y pensamientos sobre la dislexia de los docentes de inglés de Primaria y Secundaria que participaron en el estudio. Dicho análisis se realiza a partir de la difusión de un Formulario de Google compuesto por dos cuestionarios: uno sobre aspectos sociodemográficos diseñado para el presente TFM y validado por el Dr. Daniel Madrid Fernández; y el otro sobre los conocimientos de los docentes sobre la dislexia diseñado y validado por Soriano-Ferrer y Echegaray-Bengoa (2014). Del diseño e implementación de esta propuesta de taller se extrae como conclusión la necesidad de la formación continua del profesorado.

Palabras claves: dislexia, formación continua del profesorado, diseño de un taller.

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1. INTRODUCTION

Diversity has always been a feature among human beings, but it has been considered differently depending on the historical moment. During antiquity, diversity was a synonym of misfortune, and it was considered that people with functional diversity did not have the right to live, so they were isolated, pursued and even killed straight after birth, as stated by Di Naso (2011). Nowadays we are in a historical moment in which fortunately diversity is positively considered and we try to include and integrate everyone in the society, so we have learnt to appreciate the different potentialities and motivations of the people. Thereby, everyone can participate and develop himself/herself as much as possible in the society. This current paradigm implies that everyone has the chance to receive an education adapted to his/her needs, as Elizondo (2017, p. 28) defends.

Nevertheless, in my opinion, this aspect is not completely coherent with the teacher training studies that exist nowadays because teachers do not learn to be able to adapt their teaching action to the different special education needs that we can find in the classroom, so continuous training is necessary for teachers to be competent in their jobs and offer students the education that they need and that they have the right to receive. As a novice teacher, I faced the need to keep learning about special education needs last year. Specifically, I was working as an Infant Education teacher and I had some students with language difficulties, but human resources were not leftover in the school, so no specialist helped my students with their difficulties. For this reason, I am also studying the subjects to become a teacher of the Speech and Hearing (*maestra de audición y lenguaje*), so I not only will have more job opportunities but also will be able to adapt my lessons to students with language difficulties better as an English teacher and as a tutor teacher. For the same reason, I would like to learn more about Dyslexia in my Master's Dissertation because it is a common specific learning difficulty that is not always detected, as Rello (2018, pp. 117-144) claims. Thereby, learning about it not only helps me to become a more competent teacher but also to analyze other teachers' knowledge about the topic. This analysis is essential to create a product that can help both other teachers and myself, specifically in this MA Dissertation a workshop about how to tackle Dyslexia in the English classroom is designed and included as part of a conference program. As it has been possible to apply or implement the online workshop, the implementation is also analyzed in this MA Dissertation

After presenting what this MA Dissertation is about and the reason why this topic has been chosen, it is important to clarify the structure that is followed. Firstly, a literature review

about the topic is included in section 3. This section includes not only a clarification of dyslexia but also an explanation of the adaptations that should be implemented in the English classroom taking into account both possible special learning needs of students with dyslexia and the current legislation. Moreover, the literature review of this MA dissertation concludes with a revision of the importance of in-service teacher training. Secondly, the objectives and research questions of this MA dissertation are presented and next the methodology of the MA dissertation is exposed. Afterwards, the practical proposal can be found in section 4, which includes not only the proposal of the workshop but also a previous analysis of beliefs and knowledge about dyslexia on part of English teachers and the analysis of the implementation, as was indicated above. Conclusions are discussed in section 5. Finally, section 6 is devoted to references and appendices are located in section 7.

2. RESEARCH QUESTIONS AND OBJECTIVES

This MA Dissertation aims to answer three different research questions, which are the following:

- Are English teachers aware of the needs of students with dyslexia?
- Are students with dyslexia taken into account to design the English lessons in Primary and Secondary Education?
- Are students with dyslexia evaluated/assessed taking into account their learning difficulty?

Once these questions are answered, through the analysis of the beliefs and knowledge about dyslexia on the part of some teachers, it is possible to achieve the two main goals of the MA Dissertation:

- To promote the consideration of learning difficulties of students with dyslexia to design the lessons.
- To foster the adaptation of materials and evaluation procedures to students with dyslexia.

In order to get these goals an in-service teacher training workshop taking into account the outcomes from the analysis of the current beliefs and knowledge of some English teachers is designed.

3. LITERATURE REVIEW

In the theoretical framework of this Master's Dissertation, the term Dyslexia is going to be clarified through the analysis of different definitions. Moreover, the specific conditions and difficulties of the students with dyslexia are going to be included. After the clarification of this specific learning difficulty, a section that includes information about the importance of the in-service teacher training is included. Thereby, the literature review of this Master's Dissertation represents the base of the workshop presented in the practical proposal, due to the fact that the content selected for the workshop has been designed from the information in this section.

3.1. Attention to Specific Educational Needs

Before starting to talk about dyslexia, it is important to clarify that nowadays a crucial element in education is diversity. Diversity is not only the presence of students from different countries and/or with different cultures but also the presence of different learning styles and Special Educational Needs, as stated in Gumuzio Añibarro (n.d., p. 4). To assist this diversity and promote inclusion of students with Specific Educational Needs it is essential to take into account the specific educational needs of each student to promote equity and it implies that teachers should be aware of this diversity and about how to adapt their teaching action, as Labrador Martín (2016, p. 43) claims. Following Gumuzio Añibarro's (n.d., p. 4) indications, adaptive teaching implies methodological innovation, more attention to students with more difficulties and adaptation of the activities or tasks to promote the successful of learners with Specific Educational Needs in an ordinary educational center. Therefore, these adaptations make it possible that students have the chance to learn and develop themselves holistically independently of their difficulties or family situation.

To conclude this section, it is important to clarify that according to Calabuig Sanfeliu (2022a, p. 28). Specific Educational Needs include students with Special Educational Needs, students with high intellectual capacities, students arriving late at the educational system, Attention Disorders, personal conditions and Learning Difficulties. Dyslexia is found among the different Learning Difficulties and this MA Dissertation is going to focus on this specific Learning Difficulty without forgetting that other types of Learning Difficulties or Specific Educational Needs in general which can be found in the classroom.

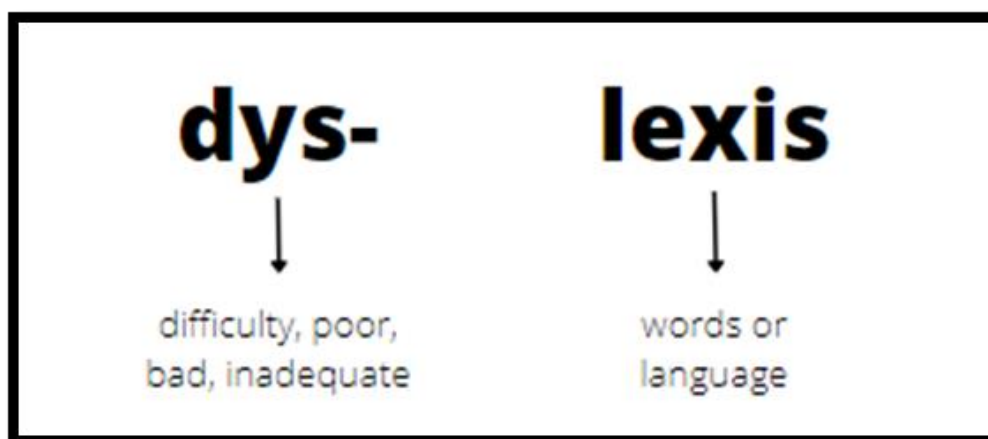
3.2. Conceptualization of the term dyslexia

The term Dyslexia is usually used in our society. However, not everyone understands what dyslexia really means. Therefore, the conceptualization of the term is meant to be a section for this MA Dissertation due to the importance of clarifying the meaning of the term to understand the rest of the study.

From an etymological perspective, dyslexia is a Greek-origin word that means difficulties with words or language as Díaz Rincón (2006, p. 143) claims, and is visually explained in the following figure:

Figure 1.

Etymology of the term dyslexia



(My own elaboration)

From this etymological perspective, it can be said that the term dyslexia does not only refer to reading difficulties, but also it can allude to difficulties in other aspects of the language, such as writing or spelling. The multiple difficulties that dyslexia can lead to are exposed in some definitions of the term by different authors as well. For instance, the Learning Disabilities Association of America (n.d.) defines dyslexia as “a specific learning disability that affects reading and related language-based processing skills” and the definition of the International Dyslexia Association Oregon Branch (n.d.) is as follows:

Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of

language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge.

Understanding these definitions is essential to clarify what a specific learning disability is. According to the Australian Disability Clearinghouse on Education and Training (n.d.), a specific learning disability, henceforth SpLD, is present when a learner receives and processes some information inaccurately due to a neurological condition. Therefore, this condition can have a significant impact on learning. Specifically, students with dyslexia have difficulties when receiving and creating written information, as indicated in the definition of the International Dyslexia Association Oregon Branch (n.d.). The above-mentioned definition of dyslexia is a general definition, but there are different types of dyslexia and some distinctions among them. Moreover, we can not forget that society is heterogeneous and each person is different, so each student with dyslexia has, besides some common characteristics with other people with dyslexia, features that define himself/herself as a unique individual.

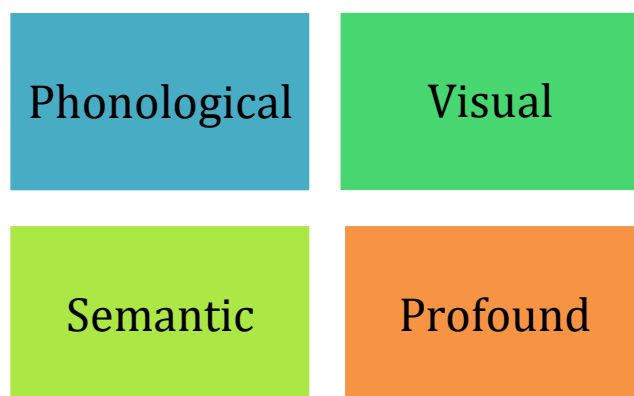
3.2.1. Types of dyslexia

As has been stated in section 3.2., there are different types of Dyslexia. Specifically, there are two big groups of types of Dyslexia and each of them has subgroups. On the one hand, this condition can be acquired. According to Benedet Álvarez (2013), acquired dyslexia or deep dyslexia is a specific learning condition that some people acquire after learning to read and write and that has effects on their reading and writing skills. This type of dyslexia is caused by a brain injury, such as a head trauma, a cerebrovascular accident, a viral infection, or a tumor, among other possible brain injuries, as Roca Hurtana (2022, p. 12) defends, and it can be peripheral or central. The difficulty to identify letters of people with peripheral dyslexia can be caused by attentional reasons and central dyslexia can be phonological, visual, semantic, or profound according to Roca Hurtana (2022, pp. 12-14). On the other hand, there are people who have difficulties to apply the alphabetic code, applying the orthographic and grammatical rules, and remembering the orthographic form of the words from the beginning of their lives and when that happens we are in front of developmental dyslexia. These difficulties are attributable to a poor phonological awareness conforming to Buisán Cabot (2014, pp. 89-111). According to this author, phonological awareness is the consciousness that words are formed by sounds that can be mentally isolated and that are called phonemes. Each phoneme can be represented by a

letter or grapheme in transparent languages like Spanish, but in opaque languages, such as English, a letter can represent different phonemes, so it makes it more difficult to acquire this phonological awareness for learners and even arduous for learners with difficulties such as dyslexia, as stated in Tainturier et al. (2011, pp. 4-12) and deeper explained in section 2.3.2. of this MA Dissertation. Besides phonological awareness, learning the alphabetic code is essential in the reading and writing learning process as stated in Buisán Cabot (2014, pp. 89-111). As students with dyslexia have problems in both alphabetical code and phonological awareness, they need more time and practice to read and write properly and the learning process is longer as well, as Rello (2018, pp. 145-200) claims. Finally, it is important to say that according to Roca Hurtana (2022, pp. 15-20) the classification of types of central dyslexia coincides with the classification of types of developmental dyslexia, so there are four types of developmental dyslexia which are included in Figure 2.

Figure 2.

Types of developmental dyslexia

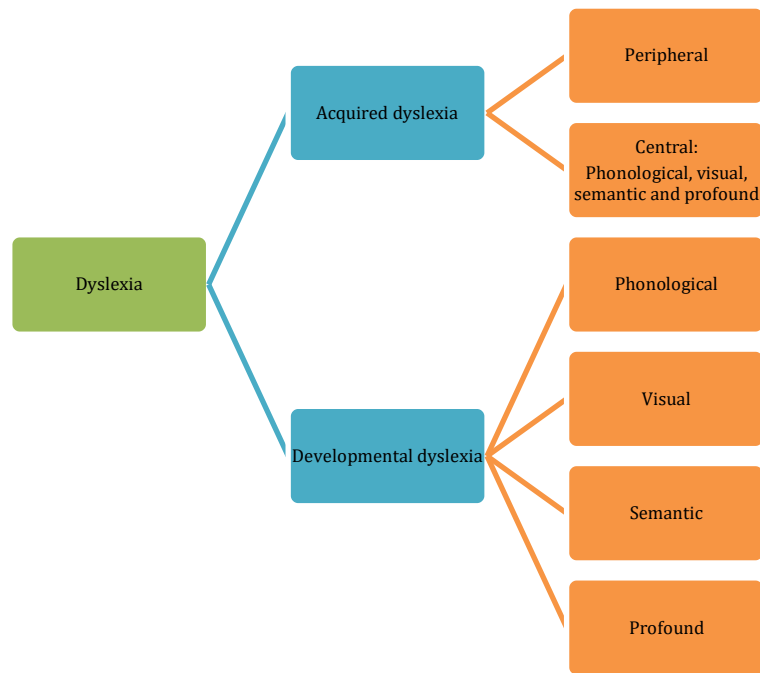


(My own elaboration)

To sum up and clarify the taxonomy, Figure 3 reflects the different types of dyslexia according to Roca Hurtana (2022, pp. 12-20).

Figure 3.

Types of dyslexia



(My own elaboration)

This last kind of dyslexia, developmental dyslexia, is the type of dyslexia on which this MA Dissertation is focused, so it is essential to clarify specifically the difficulties and specific conditions of students with developmental dyslexia.

3.2.2. Specific conditions and learning difficulties of students with developmental Dyslexia

People with developmental dyslexia struggle in reading activities, due to their difficulties with reading accuracy and reading fluency as the International Dyslexia Association Oregon Branch (n.d.) defends. These difficulties are based on their decoding and spelling skills that at the same time have a direct relationship with their low phonological awareness and the difficulties to learn and remember the alphabetical code, following the indications of Buisán Cabot (2014, pp.89-111). These difficulties imply that students with dyslexia need more time to read and write and for this reason, they have the right to have more time in the exams, including the official ones such as EVAU exams, as stated by Amate García (2019). However, it is essential to take into account that not only people with developmental dyslexia have these difficulties. Therefore, to differentiate developmental dyslexia from other conditions it is essential to observe if the intelligence is affected. As Soriano-Ferrer and Echegaray-Bengoa

(2014, pp. 91-110) claim, people with developmental dyslexia do not have their general intelligence affected, so there is not a relationship between low intelligence and the presence of dyslexia, that is to say, it is possible to find people with a high intelligence with dyslexia and people with normotypic intelligence, but someone with an intelligence lower than 80 would not be considered as a person with dyslexia because their reading and writing low abilities, in that case would be consequence of their low intelligence. However, even though people with dyslexia have not a lower intelligence, they have a different brain structure and organization and for this reason it is possible to accept that the origin of dyslexia is neurobiological and it is hereditary. Specifically, following Rello's (2019b) indications, the neurological connections in the right hemisphere of the brain are not equal as in people without dyslexia and it implies that developmental dyslexia is a lifelong condition, even though difficulties can decrease. Nevertheless, this fact is not yet used to diagnose dyslexia, so there does not exist a clinic test capable of diagnosing dyslexia.

Taking into account the neurobiological reasons explained, we can differentiate people who struggle in reading and writing activities because of developmental dyslexia from people who have these difficulties for other reasons, such as cognitive impairment. However, it is not always easy to detect and diagnose dyslexia and most of the time people are diagnosed with dyslexia after school failure, indeed according to Rello (2019b) 40% of students with failure are diagnosed with dyslexia and that reflects how education is based generally on reading and writing. Due to the difficulty to diagnose dyslexia Rello (2019a) has created a screening test that serves to identify through a game if a person has dyslexia. As has been said, it is a screening test, so the results need to be corroborated by a specialist, although the results have more than 90% of validity according to the author. However, in order to diagnose a child, it is necessary that someone realizes about the special difficulties to learn of this specific child and in this first step of the recognition process teachers and families have a crucial role. It is essential that teachers observe the process of learning of their students in order to discover if there is some student who is struggling so much and needs to spend a lot of time to complete the different tasks. If teachers observe these difficulties, they need to share this information with the specialists of the educational institution, such as the psychologist and the teacher of Speech and Hearing, so there can be a proper evaluation of the case.

3.2.3. Prevalence of Dyslexia

As has been mentioned, it is considered that 40% of the students with a story of school failure have dyslexia following Rello's (2019b) indications. Taking into account that the percentage of school failure in our country is 13,3% according to La Moncloa (2022), it means that more of the 5% of students are having important problems in their studies because of dyslexia. Moreover, school failure is more common in men than in women, specifically in La Moncloa (2022) it is indicated that school dropout in boys is 72% higher than could be because there are more men than women diagnosed with dyslexia, as Soriano-Ferrer and Echegaray-Bengoa (2014, pp. 91-110) claim. However, it is not possible to generalize that every student with dyslexia has a story of school failure, so they represent much more than the 5% of the total, even though the actual prevalence of dyslexia in Spain oscillates between 5% and 10 %. Nevertheless, this data changes depending on the country and the mother tongue of the people, specifically the prevalence of dyslexia is higher in people who have an opaque mother tongue or a mother tongue with a deep orthography than in people who have a transparent mother tongue or mother tongues with shallow orthographies, such as Spanish, as it is explained in more detail in section 3.3.1. of this MA Dissertation. It is possible to observe from the data that there are a lot of people with dyslexia who do not know that they have dyslexia in Spain, so teachers have an important role in the detection process of dyslexia. Moreover, the fact that there are a lot of people with dyslexia clarifies or facilitates the understanding of the idea that there are people who have dyslexia but also high capacities and a historical example could be Albert Einstein, as Rello (2018, pp. 247-249) indicates.

Besides the high prevalence of Dyslexia, it is important to say that there is evidence that shows that a lot of students with dyslexia have low self-esteem and it can be manifested in anxiety disorders, depression, attention deficit hyperactivity disorder (ADHD), or low motivation, as stated by Piedra Martínez (2016, pp. 41-105).

3.2.4. ADHD as a comorbidity

There is evidence that shows that between 15% and 50% of students with dyslexia have an attention deficit hyperactivity disorder, depending on the age of the subjects and the criteria used to identify the disorder, as Cuetos et al. (2019, pp. 43-55) defend. English teachers should take that into account because students with ADHD have a specific linguistic and communicative profile.

Firstly, regarding oral language, people with ADHD do not have noticeable difficulties at speaking. However, phonological acquisition processes can persist for a longer period of time and they lack metaphonological skills, which is one of the reasons for their reading difficulties, as Calabuig Sanfeliu (2022b, pp. 69-74) claims. Secondly, as regards the morphosyntactic area of language, people with ADHD have difficulties in both expression and comprehension of complex sentences. Thereby, it is recommended that teachers give indications by using simple sentences in order to promote comprehension according to the Education Department of Navarra (2012, pp. 30-33). Regarding lexicon, these students usually repeat words because they usually have poor vocabulary, as the Education Department of Navarra (2012, pp. 10-13) indicates. As regards the pragmatic area of language, it is the area of the language which is more affected in ADHD people, that is to say they usually have communication and social interaction difficulties, following Giraldo Giraldo and Chaves Castaño's (2014, pp. 41-56) indications. According to these authors, these complications are caused by difficulties in the executive functions that produce both expression and comprehension problems. On the one hand, they have expression problems because they struggle to manage time and keep the plot line of speech or discourse. On the other hand, they have comprehension problems because they usually interrupt the speaker or do not understand the essential information of the message because it is difficult for them to keep focus during the interlocutor's speech. Finally, students with ADHD also have difficulties with the written language according to Moraleda Sepúlveda et al. (2018, pp. 151-158). On the one hand, they have problems at writing because they cannot write as quickly as they think and they get tired. This motor speed problem causes problems in calligraphy. Besides, it is hard to create an ordered discourse and this difficulty makes them make more orthographic mistakes because they are trying to focus their attention on creating an ordered text, as indicated by Calabuig Sanfeliu (2022b, p.74). On the other hand, they have problems at reading because it is not a motivating activity due to the high attention demand of the activity.

To conclude, it is important to say that each student is different and unique. Therefore, even though there is a linguistic and communicative profile, language differences can be found among different people with ADHD, as the Education Department of Navarra (2012) specifies. However, if they have some difficulties it would be essential to promote the improvement of the executive functions in order to observe advancements in the different language areas, as Calabuig Sanfeliu (2022b, pp. 69-70) affirms.

3. 3. Students with dyslexia in the English classroom

This section integrates some essential aspects that English teachers should know about students with dyslexia to adapt their teaching actions to their needs. Specifically, the reason why students with dyslexia can struggle with English subjects is explained, the actual legislation that needs to be considered by the different teachers is clarified and some adaptations that can be implemented in the classroom to promote students with dyslexia success and learning are also included.

3.3.1. Dyslexia and learning of English as a foreign language

There are lots of different languages around the world and all of them can be analyzed according to the correspondence between grapheme-phoneme, i.e. according to the letter-to-sound interdependence. On the one hand, if there is an unpredictable grapheme-phoneme correspondence, multi-letter graphemes, and frequent irregularities in a language, this is a deep orthography language. On the other hand, simple letter-sound relations are a feature of shallow orthographies. (Gosińska Turek, 2020, pp. 96-110)

Students with dyslexia have more difficulties when learning a deep-orthography language, such as English, than a highly transparent language, such as Turkish or Spanish. Therefore, the detection and diagnosis of dyslexia in people whose mother tongue is a deep-orthography language is higher than in people whose language is more transparent, as Rello claims (2018, pp. 117-144).

However, that does not mean that there are fewer people with dyslexia, but that there are fewer people with a diagnosis. Thereby, there might be students in Spain who struggle with English because they are dyslexic, but they do not know yet. Therefore, it is necessary that we not only adapt our classroom to students with a diagnosis but also implement the adaptations that help students with dyslexia and are not detrimental to the other students with all the students to help both people with dyslexia and with a diagnosis and people with dyslexia but without it, as it is indicated in Cueto et al. (2019, pp. 131-133).

Moreover, taking into account that English is a deep-orthographic language, English teachers can be essential in the detection of possible causes of dyslexia. Thereby, we cannot forget to talk to the specialist if we realize that a student has some of the features of the students with dyslexia, as Rello (2019b) defends. For this reason, it is essential that English teachers are

aware of the difficulties of these students to be able to identify them because if no teachers realize their difficulties, these students will keep working so hard without getting the expected goals according to the effort.

3.3.2. Analysis of dyslexia legislation

Dyslexia is a specific learning difficulty according to DSM-5, that is to say, the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders, as stated in American Psychiatric Association (2014, pp. 39-40). This specific learning difficulty is included in the actual legislation. Specifically, it is possible to find information related to dyslexia in the Spanish Constitution, in International legislation, and in organic laws of Education.

Regarding the Spanish Constitution, it is indicated in article 27 of the first section of chapter II of title I that everyone has the right to receive an education and this education will have the goal to develop people holistically in respect of democratic principles of coexistence and fundamental rights and freedom. Therefore, according to the Constitution, an educational institution needs to offer its students an education that helps them to develop holistically regardless of their conditions or difficulties and adaptations are essential in order to achieve this goal.

As regards the International legislation, in article 3 of the Convention on the Rights of Persons with Disabilities of the United Nations (2006, pp. 3-4) equality of opportunities and universal accessibility are defended. Moreover, the International Conference on Education of UNESCO (2008, pp. 7-9) recommended to the different member countries that effective curriculums with a flexible approach and diversity of pedagogical practices should be designed and applied in order to attend to the different needs and local situations.

Finally, regarding the organic laws of Education, article 1 of Organic Law 2/2006 defends an education of quality for all the students, regardless of their conditions and circumstances. Moreover, this law is based on the principle of equity, educational inclusion, and equality of opportunities and it considers that the teacher's action is an element that needs to be used to compensate for the inequalities, with special attention to students with disabilities. Regarding this adaptation, article 3 of Organic Law 2/2006 defends that the access, permanence, and progress of the students with specific educational support needs, such as dyslexia due to specific learning difficulties, have to be guaranteed. Furthermore, article 71 of Organic Law 2/2006 defends that the administration will secure the resources for students with specific

educational support needs, and it implies early detection, immediate intervention, the same resources for charter and public schools, curricular adaptations and professors and teachers trained to work with diversity. Besides, this law defends flexibility as an element essential for the attention to the diversity of students, including not only their different needs but also their different expectations.

After Organic Law 2/2006, Organic Law 8/2013 add that the equal rights and opportunities should promote the development of the personality and help to compensate any situation of discrimination. As a novelty, that law included the attention disorders as a type of specific educational support needs.

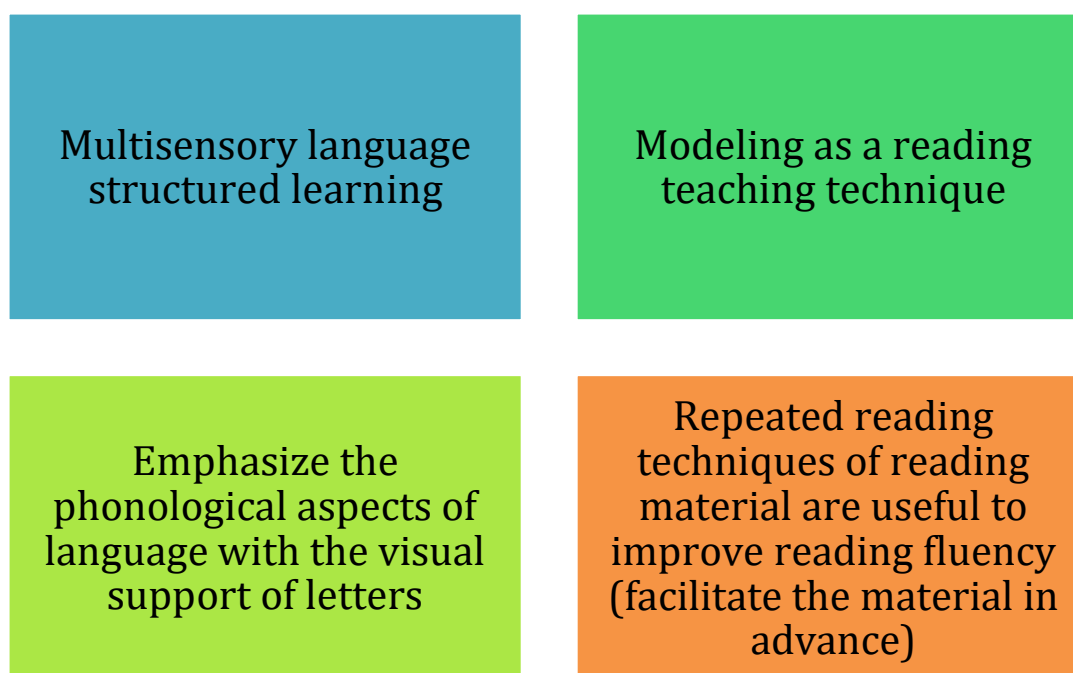
To conclude, the more recent law, Organic Law 3/2020 did not include so many novelties regarding the attention to students with dyslexia, but it keeps promoting the special attention to students with specific educational support needs to foster the inclusion of all students in the ordinary schools and in the society.

3.3.3. Adaptations for students with Dyslexia

As has been stated, it is necessary to adapt our teaching methods to the needs of the students because it is our responsibility according to the actual legislation. However, it does not mean that each student needs to be doing a different activity in the classroom, but that the tasks that they have to do need to be adequate for them. Moreover, it is important to say that there is not any medicine or glasses that help students with dyslexia, so the adaptations that we can implement in the classroom to help students with dyslexia are access adaptations that not only promote learning of students diagnosed with dyslexia but also can help the other students or, at least, they are not harmful for them. Among the different strategies to adapt our classroom for students with dyslexia, Cuetos et al. (2019, pp. 66-80) defend that students with dyslexia should be located close to the teacher in the classroom and have more time to complete tasks. Moreover, their orthographic mistakes should be considered in a different way than in students without reading and writing difficulties. Furthermore, these authors defend that the different actions and methodologies that are presented in Figure 4 can help students with dyslexia.

Figure 4.

Actions and methodologies useful to promote students with dyslexia success



(My own elaboration, using the information from Cuetos et al., (2019, pp. 66-80))

As has been presented above, students with dyslexia present a phonological deficiency. To address this difficulty, systematic and sequential instructions as a form of giving instructions are effective according to Berninger and Amtmann (2003, pp. 345-363) and Snowling and Hulme (2011, pp. 1-23). Moreover, among the different strategies to adapt our classroom for students with dyslexia, we can find multisensory language structured learning. Specifically, as McIntyre and Pickering (2001, pp. 247-254) say multisensory instruction approaches that use systematic phonics have also been used to teach children with dyslexia with good results.

Sparks et al., (1991, pp. 96-118) suggest multisensory structured language instruction as a methodology that promotes explicit and direct teaching of the second language phonology through seeing, hearing, and doing. In other words, it is a methodology in which reading and writing are learned through multisensory strategies. It has been demonstrated that the impact on students with dyslexia is positive and it had significant gains in terms of text comprehension because “the design of multisensory activities effectively help learners learn new vocabulary, understand some grammar rules and gain strategies that can be helpful when dealing with reading comprehension texts” (Romero, 2020, p. 36). A specific example of a multisensory approach would be the method of learning grammar using colors that is presented in Cimermanova (2015, pp. 7-28).

According to Nijakowska et al., (2014, pp. 64-65), to apply the multisensory approaches, the recommendations indicated in Table 1 are really useful due to they are based on the key principles of the multisensory approach:

Table 1

Recommendations based on the key principles of the multisensory approach

Recommendations based on the key principles of the multisensory approach (Nijakowska et al., 2014, pp. 64-65)
“Provide opportunities for students to practice and review a concept frequently (repetitive principle)” (p. 64).
“Teach language concepts in a logical progression and help students to categorize concepts; also organize these language concepts from simple to complex (structured, sequential principles)” (p. 64).
“Build on what students already know, and make the connection between the known and the new information explicit (cumulative principle)” (p. 64).
“Systematically and explicitly teach the phonemes or speech sounds of the foreign language” (p.64).
“Directly teach students the sounds of the letters in the foreign language and the letter(s) the sounds represent (alphabetic/phonetic principle)” (p.64).
“Show students how to think about a language concept to be learned and ask them to explain the concept in their own words; examples include rules for applying word endings, appropriate word order, and subject/verb agreement (metacognitive principle)” (p.65).
“Model for students the way to break apart words while reading, especially words with more than one syllable (analysis principle)” (p.65).
“Model for students the way to put parts of words back together for spelling (synthetic principle)” (p. 65).

(My own elaboration, using information from Nijakowska et al., (2014, pp. 64-65))

Besides multisensory structured learning, computer-based learning systems have been proved to be really useful to promote learning in students with specific educational needs, such as in children with dyslexia, due to its benefits in motivation and in learning, as Ecalle et al. (2009, pp. 218-238), Crespo Garcia et al. (2008, pp. S3B-11-S3B-15), Hilte and Reitsma (2006, pp. 301-318), Kast et al. (2011, pp. 177-200) defend. Among the technologies that we can use in the classroom, text readers such as Google lens or Speechify, spell checkers, and speech-to-text tools are really useful for students with dyslexia, as Cuetos et al. (2019, pp. 136-145)

defend. As Lin et al. (2017, pp. 76-87) claim, these systems are really efficient and effective and for this reason, Rello (2019b) creates an online application entitled Piruletras in order to promote the learning of the orthographic rules in students with dyslexia.

Moreover, a good way to adapt the materials for students with dyslexia is following the guidelines of Cuetos et al. (2019, pp. 133-135) to adapt texts due to even though students should not receive only the information through texts, they will need to receive some of them through this canal in order to improve their reading skills. The adaptations proposed by the authors are included in Table 2 and they are not only beneficial for students with dyslexia but also for the rest of the students, as Rello (2019a) defends.

Table 2

Guidelines to adapt texts for students with dyslexia

Typography	The most recommendable typography are Arial, Courier, Hervética y Verdana, and it is not recommendable to use Arial Itálica or without serif fonts.
Font size	Font size should be slightly bigger, that is to say a size 14 on A4 paper and a size 18 on a screen are adequate.
Space	Space larger than the standard space
Color	It is recommended to use black font color on warm background colors, such as orange, yellow, or peach color.
Highlight	Highlighting key words and ideas helps the reader to understand the meaning of the text better.

(My own elaboration. Information based on Cuetos et al. (2019, pp. 133-135))

3.4. In-service teacher training

We live in a society where increasingly global changes produce an unprecedented and undoubted need of in-service teacher training. These global changes characteristics of the information society affect all sectors of the society, including education. Thereby, it is essential that in-service teachers receive training to keep updated, as García Ruiz and Castro Zubizarreta (2012, pp. 297-322) claim.

According to UNESCO (as cited in García Ruiz and Castro Zubizarreta, 2012, p.299), in-service teacher training is “the process of revision and updated knowledge, attitudes and

skills caused by the need to renew knowledge to adapt it to the changes and progress of the society”. Besides, in-service teacher training enables teachers to keep developing their professional competencies, such as the competency to solve problems or the competency to adapt their teaching action to diversity, due to the fact that the development of competencies is gradual, following Garci-Rincon de Castro’s (2019) indications, and thereby teachers are developing their professional competences throughout all their career.

Moreover, in-service training is a right and an obligation for in-service teachers, thereby Educational Administration and schools have the responsibility to bring these learning opportunities to in-service teachers, as stated in Organic Law 2/2006, 3rd of May, of Education, specifically in article 102. Nonetheless, besides the training opportunities that Educational Administration and schools offer, teachers can benefit from different kinds of training from universities and other organizations.

Among these organizations that offer training, we can find *Red Educativa Dim-Edu*. *DIM group* is a group of entities created by Pere Marquès Graells. The beginning of this organization was when DiM-UAB was created in 2000 as a group of research on didactic and multimedia of the Universidad Aut3noma de Barcelona. This group of researchers was led by Dr. Pere Marquès from the beginning until 2016 when it was started to be led by Dr. Alejandra Bosco. Nowadays DIM group not only is a research group, but also a magazine about didactic and multimedia research entitled *Revista Dim* which was created in 2005, a research group which collaborates with *Asociaci3n ESPIRAL, Educaci3n y Tecnología* to create publications and activities, and a social network entitled DIM-EDU in which permanent learning about research and good practices in education is offered through conferences that are organized throughout the academic year. Moreover, these meetings include both online and offline activities, comprising online workshops of 30 minutes that need to be related to education and that can be attended for free, as can be found in Grupo DIM (n.d.).

Although there are different entities that form part of Grupo DIM nowadays, all of them follow the objectives that are included in Table 3.

Table 3

Objectives of DIM group

Objectives of DIM group (Grupo DIM, n.d.)
- “La mejora de la educación mediante un buen uso de las TIC”. - “Crear una comunidad de aprendizaje (red DIM-EDU) de personas que trabajan en el ámbito de la educación y utilizan las TIC”. - “Compartir conocimientos, ideas, iniciativas, experiencias, materiales, formación...” - “Proporcionar apoyo al desarrollo profesional de los agentes educativos: consultas puntuales, jornadas, formación permanente...” - “Promover proyectos e investigaciones que permitan generar conocimiento para mejorar los procesos de enseñanza y aprendizaje aprovechando las funcionalidades que aportan las tecnologías multimedia”. - “Colaborar en la realización de proyectos con otros grupos, empresas e instituciones”. - “Crear y difundir conocimiento a través de jornadas y congresos, cursos, la revista DIM y diversos medios de comunicación”. - “Realizar una metainvestigación sobre DIM: la actividad y la evolución de un grupo/red social con estos objetivos en la sociedad actual: cambiante, tecnificada, abierta...”

(My own elaboration, including information from Grupo DIM, (n.d.))

4. A PRACTICAL PROPOSAL

In this section of the MA's Dissertation, an online workshop for teachers about teaching English to students with dyslexia is presented and its implementation is analyzed. Before the explanation of the mentioned online workshop, this section includes an analysis of English teachers' knowledge about dyslexia and this previous analysis has been taken into account in the design of the workshop.

4.1. Previous analysis of beliefs and knowledge about dyslexia on the part of English teachers

In order to consider the beliefs and knowledge about dyslexia of English teachers, the Knowledge and Beliefs About Developmental Dyslexia Scale (KBDDS) was passed. Specifically, the KBDDS (Soriano-Ferrer & Echegaray-Bengoa, 2014) items were included in a Google Form, but this Google Form includes another survey validated by Dr. Daniel Madrid Fernández, university professor of the Department of Language and Literature Methodology at the University of Granada (Spain). This last survey includes sociodemographic items that enable to elucidate the variety and general features of the participants that form the sample of this study. Items in both surveys are analyzed through SPSS 24.

4.1.1. Sample

The information that is included in this section has been obtained through the application of the survey validated by Dr. Daniel Madrid Fernández, which is included in Appendix 1.

A total of 82 Primary and Secondary teachers have participated in the study. Regarding the sex of participants, 19,5% of participants are men and 80,5% are women, that is to say, there are 16 men and 66 women who have participated in the study, as can be observed in Table 4 and in Figure 5.

Table 4.

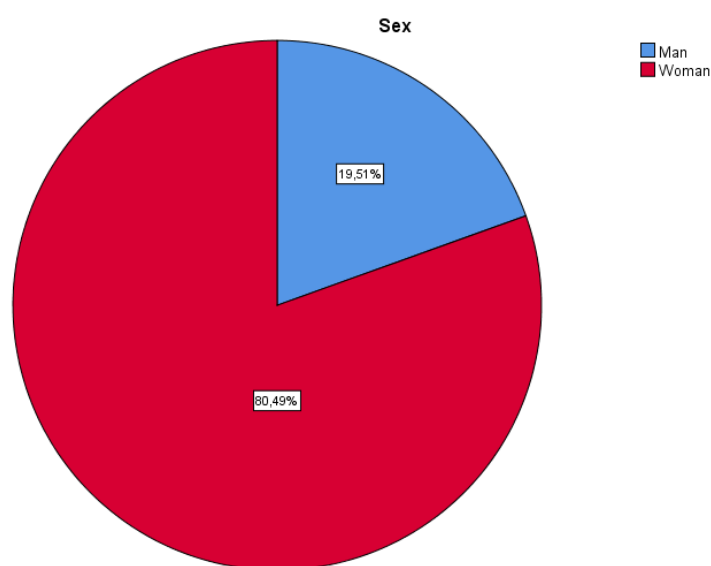
Sex of the participants

		Sex			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Man	16	19,5	19,5	19,5
	Woman	66	80,5	80,5	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 5.

Sex of participants



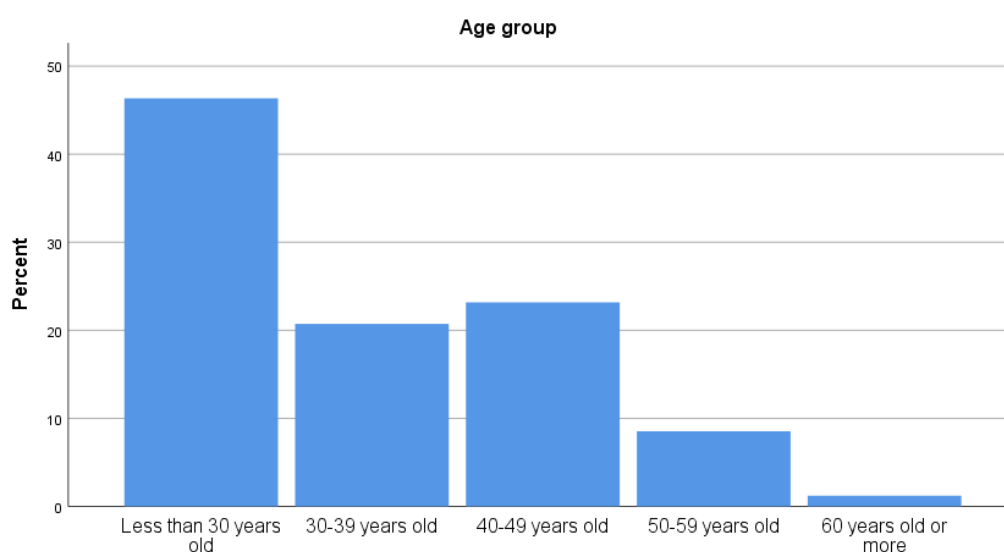
(My own elaboration)

Regarding the age of the participants, 46,3% of participants are less than 30 years old, 20,7% are between 30 and 39 years old, 23,2% are between 40 and 49 years old, 8,5% are between 50 and 59 years old and 1,2% is 60 years old or more, as can be observed in Table 5 and Figure 6.

Table 5.*Age group*

		Age group			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Less than 30 years old	38	46,3	46,3	46,3
	30-39 years old	17	20,7	20,7	67,1
	40-49 years old	19	23,2	23,2	90,2
	50-59 years old	7	8,5	8,5	98,8
	60 years old or more	1	1,2	1,2	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 6.*Age group*

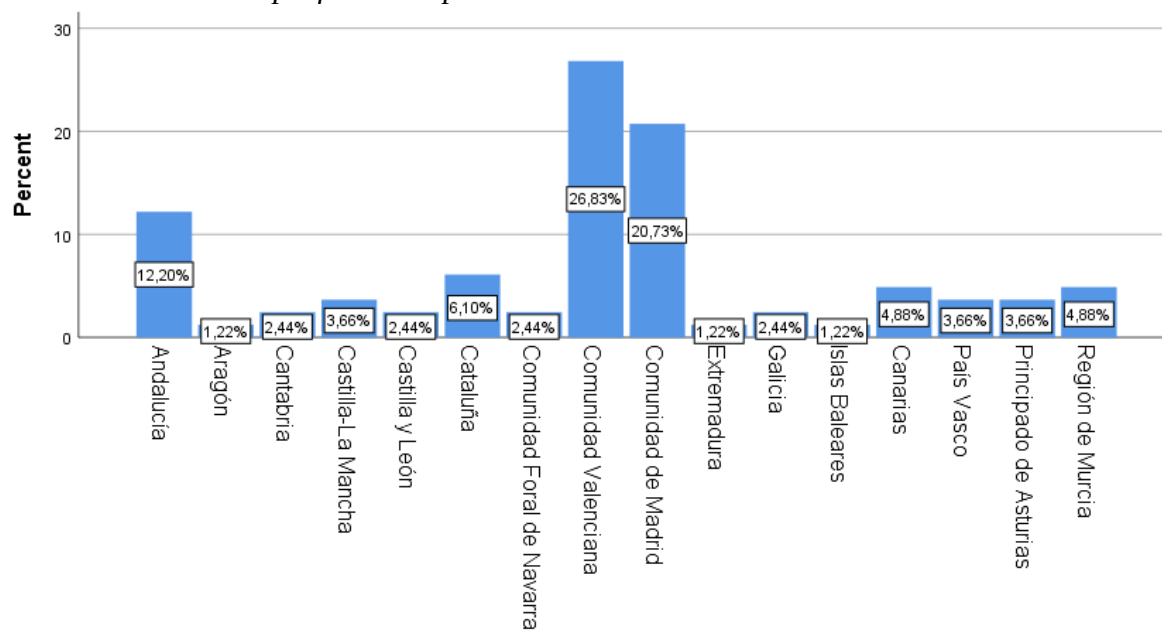
(My own elaboration)

As regards the location in which the participants pursue the teaching profession, in Table 6 and in Figure 7 we can observe that participants that teach in the different locations or territories of Spain have participated in the study. However, the higher participation data are from Comunidad Valenciana, Comunidad de Madrid and Andalucía.

Table 6.*Location in which the profession is pursued*

Location in which the profession is pursued					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Andalucía	10	12,2	12,2	12,2
	Aragón	1	1,2	1,2	13,4
	Cantabria	2	2,4	2,4	15,9
	Castilla-La Mancha	3	3,7	3,7	19,5
	Castilla y León	2	2,4	2,4	22,0
	Cataluña	5	6,1	6,1	28,0
	Comunidad Foral de Navarra	2	2,4	2,4	30,5
	Comunidad Valenciana	22	26,8	26,8	57,3
	Comunidad de Madrid	17	20,7	20,7	78,0
	Extremadura	1	1,2	1,2	79,3
	Galicia	2	2,4	2,4	81,7
	Islas Baleares	1	1,2	1,2	82,9
	Canarias	4	4,9	4,9	87,8
	País Vasco	3	3,7	3,7	91,5
	Principado de Asturias	3	3,7	3,7	95,1
	Región de Murcia	4	4,9	4,9	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 7.*Location in which the profession is pursued*

(My own elaboration)

Besides the above-mentioned socio-demographical items, the stage of education in which the participants teach, their years of experience and the studies that allow them teaching are analyzed in the survey validated by Dr. Daniel Madrid Fernández.

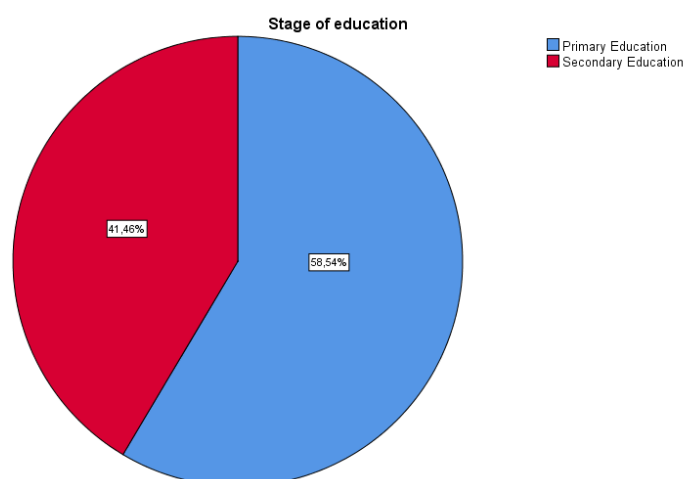
Regarding the stage of education in which the participants teach, 58,5% of the participants are teachers in Primary Education and 41,5% of the participants are teachers in Secondary Education; in other words, 48 English Primary teachers and 34 English Secondary teachers have participated in the study. This information is reflected in both Table 7 and Figure 8.

Table 7.
Stage of Education

		Stage of Education			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Primary Education	48	58,5	58,5	58,5
	Secondary Education	34	41,5	41,5	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 8.
Stage of Education



(My own elaboration)

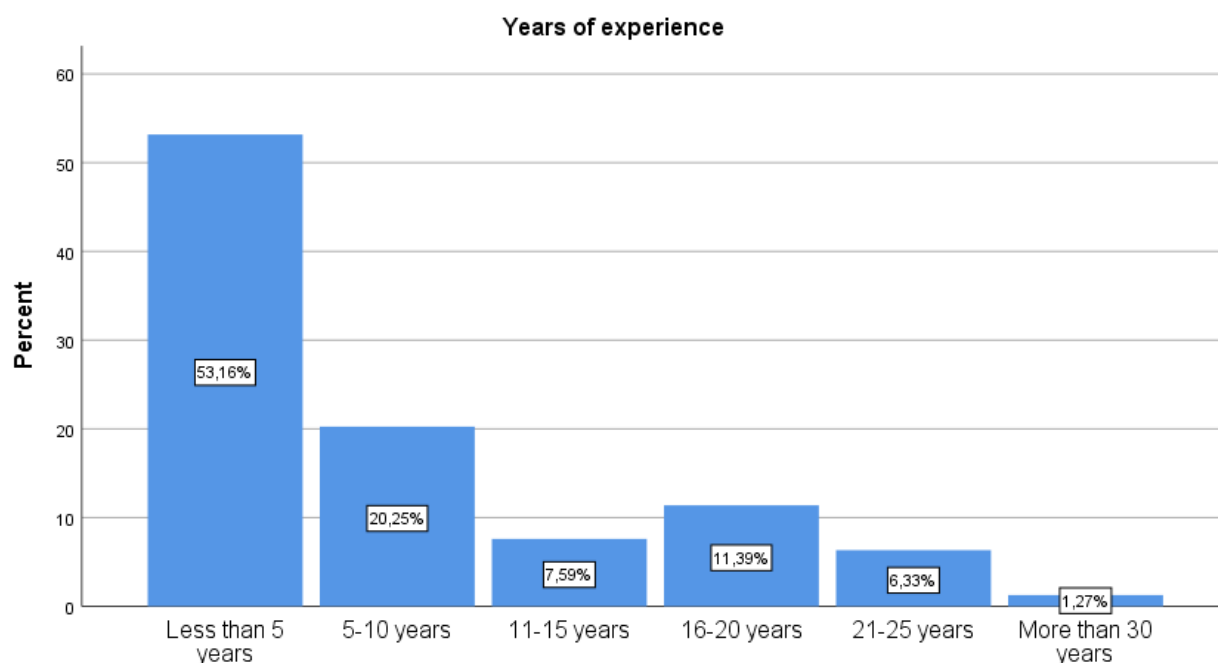
As regards the years of teaching experience of the participants, in Table 8 and Figure 9, it is evident that most of the people who have participated in the study are novice teachers. However, 19,5% of participants have been working between 5 and 10 years, 7,3% of participants have been working between 11 and 15 years, 11% of participants have been working between 16 and 20 years, 6,1% of participants have been working between 21 and 25 years and 1,2% of participants have been working for more than 30 years, so there are participants of the different established experienced ranges.

Table 8.
Years of experience

		Years of experience			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Less than 5 years	42	51,2	53,2	53,2
	5-10 years	16	19,5	20,3	73,4
	11-15 years	6	7,3	7,6	81,0
	16-20 years	9	11,0	11,4	92,4
	21-25 years	5	6,1	6,3	98,7
	More than 30 years	1	1,2	1,3	100,0
	Total	79	96,3	100,0	
Missing	System	3	3,7		
Total		82	100,0		

(My own elaboration)

Figura 9.
Years of experience



(My own elaboration)

Concerning the studies that allow participants work as teachers, 42,7% of participants have studied the Degree of Primary Education, 26,8% have studied the Master's Degree of Secondary Education, 15,9% have studied the old course to become Secondary Teacher (*Certificado de Aptitud Pedagógica*, CAP) and 14,6% have studied a diploma; in other words, 35 people have studied the Degree of Primary Education, 22 people have studied the Master's

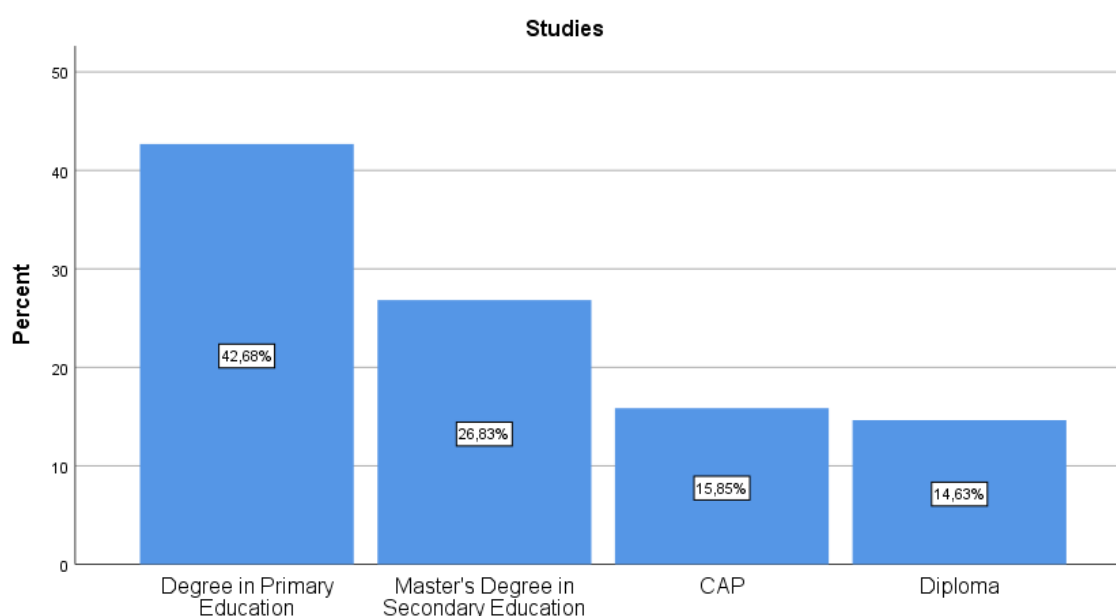
Degree of Secondary Education, 13 subjects have studied CAP, and 12 participants have a diploma, as can be observed in Table 9 and Figure 10.

Table 9.
Studies

		Studies			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Degree of Primary Education	35	42,7	42,7	42,7
	Master's Degree of Secondary Education	22	26,8	26,8	69,5
	CAP	13	15,9	15,9	85,4
	Diploma	12	14,6	14,6	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 10.
Studies



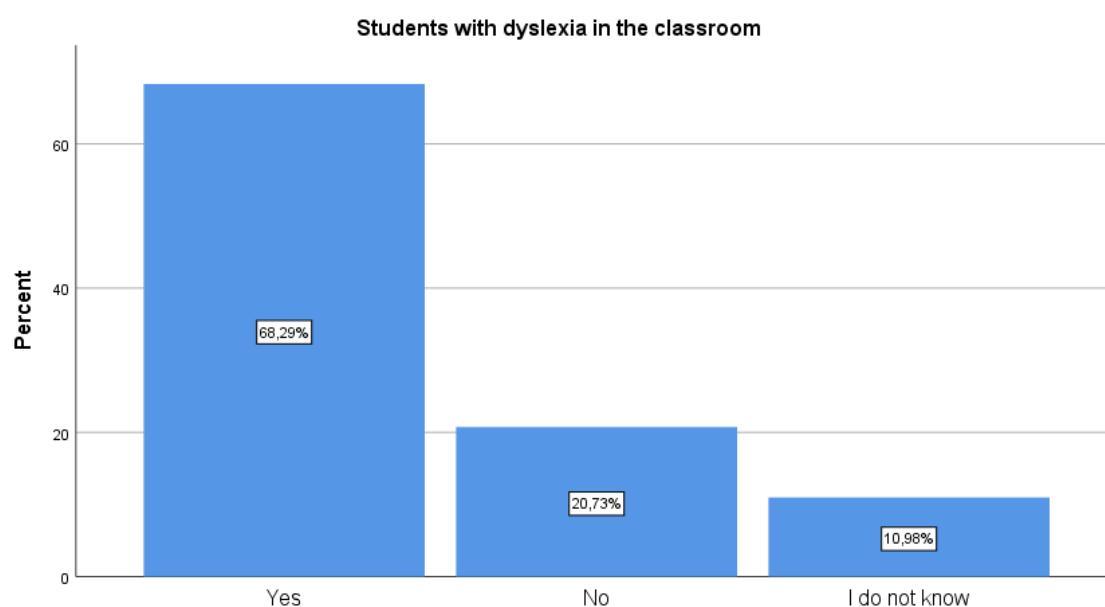
(My own elaboration)

Moreover, the awareness of the presence of students with dyslexia in the classroom has been analyzed in the survey created. 68,3% of subjects affirm to have had at least a student with dyslexia in the classroom, 20,7% of participants say that they “do not know” and 17% of participants affirm that they have not had any student with dyslexia in their classes; that is to say, 56 subjects affirm that have had students with dyslexia, 17 subjects denied it and 9 subjects do not know. All these data are expressed in Table 10 and Figure 11.

Table 10.*Students with dyslexia in the classroom***Students with dyslexia in the classroom**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	56	68,3	68,3	68,3
	No	17	20,7	20,7	89,0
	I do not know	9	11,0	11,0	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 11.*Students with dyslexia in the classroom*

(My own elaboration)

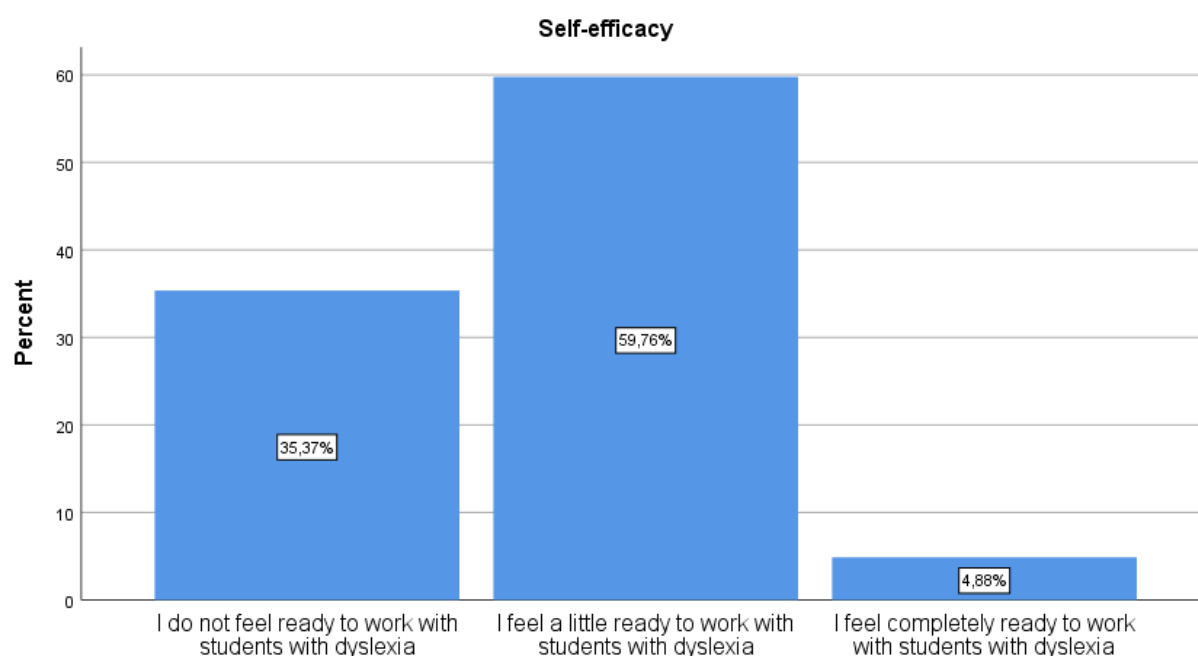
Finally, participants are asked about their self-efficacy and about the training about dyslexia that they have attended. With regard to self-efficacy, 35,4% of the subjects affirm that they “do not feel ready to work with students with dyslexia”, 59,8% of participants say that they feel a little ready to do it and 4,9% of participants feel that they are completely ready to work with students with dyslexia, as can be observed in Table 11 and Figure 12.

Table 11.
Self-efficacy

		Self-efficacy			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	I do not feel ready to work with students with dyslexia	29	35,4	35,4	35,4
	I feel a little ready to work with students with dyslexia	49	59,8	59,8	95,1
	I feel completely ready to work with students with dyslexia	4	4,9	4,9	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 12.
Self-efficacy



(My own elaboration)

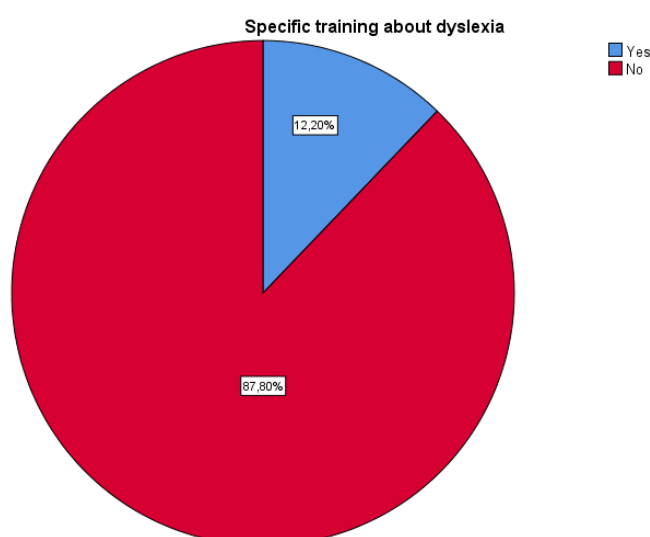
With respect to training about dyslexia, 12,2% of subjects have completed some specific training about dyslexia and 87,8% of subjects have not done it; in other words, 10 participants have done at least a specific training about dyslexia and 72 participants have not done it, as reflected in Table 12 and Figure 13.

Table 12.
Specific training about dyslexia

		Specific training about dyslexia			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Yes	10	12,2	12,2	12,2
	No	72	87,8	87,8	100,0
	Total	82	100,0	100,0	

(My own elaboration)

Figure 13.
Specific training about dyslexia



(My own elaboration)

4.1.2. Data sources or instruments and procedure

This studio uses Google Form to compile both the answers to the Knowledge and Beliefs About Developmental Dyslexia Scale (KBDDS; see Appendix 2) and the answers of the survey created by myself and validated by Dr. Daniel Madrid Fernández, which is included in Appendix 3.

On the one hand, regarding the Knowledge and Beliefs About Developmental Dyslexia Scale, it was designed and validated by Soriano-Ferrer and Echegaray-Bengoa (2014, p. 203). Specifically, this scale was developed following a four-step procedure, as is explained in Table 13.

Table 13.

Steps followed to design the Knowledge and Beliefs About Developmental Dyslexia Scale

Step 1	“A scientifically based literature review was carried out and a pool of 65 items about dyslexia was compiled” (Soriano-Ferrer et al., 2015, p. 98).
Step 2	“The items were revised using experts’ suggestions” (Soriano-Ferrer et al., 2015, p. 98).
Step 3	“A determination was made of which items comprised each of the subscales, with the agreement of at least 80 % of the experts. This process yielded a scale containing 50 items” (Soriano-Ferrer et al., 2015, p. 98).
Step 4	“Finally, based on the item-total correlations, 14 items were deleted, resulting in a 36-item rating scale” (Soriano-Ferrer et al., 2015, p. 98).

(My own elaboration, using information Soriano-Ferrer et al., 2015, p. 98)

The different items that finally form the KBDDS are statements about dyslexia which can be classified in three specific areas: “general information about the nature, causes, and outcome of DD; symptoms/diagnosis of DD; and the treatment of DD” (Soriano-Ferrer et al., 2015, p.98). The classification of each item can be observed in Appendix 2. The participants need to choose among “true”, “false”, or “do not know” according to their conceptions of dyslexia in each item. Thereby, their answers give us information about what teachers really know about dyslexia and about their incorrect beliefs, as is stated in Soriano-Ferrer et al. (2015, p. 98).

On the other hand, as regards the survey created by myself and validated by Dr. Daniel Madrid Fernández, it is formed by 11 items. 9 of them are about sociodemographic items; specifically, about participants’ age, gender, years of teaching experience, stage of education in which they teach, studies that allow participants teach, location in which the profession is pursued, specific training about dyslexia, self-efficacy to work with students of dyslexia and awareness of the presence of students with dyslexia in their class. Moreover, this questionnaire includes two open questions in which participants can write the access adaptations and activities that they apply in their classroom to adapt their materials and learning process to students with dyslexia, as can be observed in Appendix 3. The answers for these questions can be found in Appendix 4.

4.1.3. Procedure

In this study, a Google Form that includes both surveys was administrated in 2022 through email and social networks, specifically WhatsApp and LinkedIn. Data has been analyzed by using SPSS 24.

4.1.4. Data analysis

In this section, data is divided into three specific tables. Firstly, Table 14 includes data from items related to general information about the nature, causes, and outcomes of dyslexia. Secondly, Table 15 includes data related to symptoms or diagnosis of dyslexia, and Table 16 compiles data related to the treatment of dyslexia. In each item, the correct answer is highlighted in the corresponding table.

Table 14.

General information

Ítems from Appendix X	“Verdadero”		“Falso”		“No lo sé”	
	N	%	N	%	N	%
“1. La dislexia es el resultado de problemas neurológicos”	32	39%	16	19,5 %	34	41,5 %
“2. La dislexia está causada por un déficit viso-perceptivo, por eso invierten las letras y las palabras”	27	32,9%	14	17,1 %	41	50%
“3. Un niño puede ser disléxico y superdotado”	71	86,6%	0	0%	11	13,4 %
“4. La mayoría de los alumnos con dislexia suelen tener problemas sociales y/o emocionales”	23	28%	37	45,1 %	22	26,8 %
“5. El cerebro de las personas con dislexia es diferente del de las personas sin dyslexia”	20	24,4%	26	31,7 %	36	43,9 %
“6. La dislexia es hereditaria”	23	28%	24	29,3 %	35	42,7 %
“7. La mayoría de los estudios señalan que alrededor del 5% de los alumnos en edad escolar tienen dislexia”	42	51,2%	1	1,2%	39	47,6 %
“8. La dislexia es más frecuente en hombres que en mujeres”	18	22%	12	14,6 %	52	63,4 %

“16. Todos los chicos que leen mal son disléxicos”	0	0%	79	96,3 %	3	3,7%
“20. Llamamos disléxicos a los alumnos que tienen problemas para aprender a leer sin que exista una causa aparente”	14	17,1%	59	72%	9	11%
“21. Los niños con dislexia no son tontos ni vagos. Saber acerca de la dislexia puede ayudarles”	78	95,1%	2	2,4%	2	2,4%
“25. Creo que la dislexia es un mito, un problema que no existe”	0	0%	79	96,3 %	3	3,7%
“27. Los problemas en el establecimiento de la lateralidad (esquema corporal) son la causa de la dislexia”	17	20,7%	21	25,6 %	44	53,7 %
“29. El término dislexia hace referencia a un problema relativamente crónico, que no suele superarse por completo”	31	37,8%	22	26,8 %	29	35,4 %
“30. Muchos alumnos con dislexia siguen teniendo problemas con la lectura cuando son adultos”	40	48,8%	19	23,2 %	23	28%
“31. Muchos alumnos con dislexia tienen baja autoestima”	55	57,1%	11	13,4 %	16	19,5 %
“35. La dislexia suele durar mucho tiempo”	37	45,1%	6	7,3%	39	47,6 %

(My own elaboration, including data from the SPSS analysis of the survey)

Table 15.

Symptoms or diagnosis of dyslexia

Ítems from Appendix X	“Verdadero”		“Falso”		“No lo sé”	
	N	%	N	%	N	%
“9. Generalmente, las personas con dislexia tienen problemas en la conciencia fonológica (p.e. habilidad para percibir y manipular sonidos del lenguaje)”	47	57,3%	15	18,3 %	20	24,4 %
“11. Los niños con dislexia tienen una inteligencia por debajo del promedio”	0	0%	73	89%	9	11%
“12. La lectura de los alumnos con dislexia suele caracterizarse por la inexactitud y por la falta de fluidez lectora”	67	81,7 %	7	8,5%	8	9,8%

“13. La principal característica de la dislexia son las inversiones de letras o palabras”	67	81,7%	10	12,2 %	5	6,1%
“14. Las dificultades con el procesamiento fonológico de la información es uno de los déficits importantes de la dislexia”	38	46,3%	4	4,9%	40	48,8 %
“15. Las pruebas de inteligencia son útiles en la identificación de la dyslexia”	6	7,3%	48	58,5 %	28	34,1 %
“32. Los niños con dislexia tienen problemas para leer con exactitud, pero no tienen dificultades con la comprensión del lenguaje oral”	55	67,1%	12	14,6 %	15	18,3 %
“33. Aplicar un test de lectura individual es imprescindible para diagnosticar la dislexia”	35	42,7%	9	11%	38	46,3 %
“34. Generalmente, los disléxicos suelen tener un rendimiento malo en ortografía”	62	75,6%	5	6,1%	15	18,3 %
“36. Los disléxicos tienen problemas para leer con fluidez”	68	82,9%	4	4,9%	10	12,2 %

(My own elaboration, including data from the SPSS analysis of the survey)

Table 16.

Treatment of dyslexia

Ítems from Appendix X	“Verdadero”		“Falso”		“No lo sé”	
	N	%	N	%	N	%
“10. Las técnicas de lectura fluida suelen emplear el modelado como técnica de enseñanza”	26	31,7%	4	4,9%	52	63,4 %
“17. Se puede ayudar a los alumnos con dyslexia utilizando gafas de colores”	8	9,8%	32	39%	42	51,2 %
“18. Los médicos pueden recetar medicamentos que ayuden a los alumnos con dyslexia”	1	1,2 %	57	69,5 %	24	29,3 %
“19. En la actualidad, se ha demostrado que los métodos multisensoriales no son efectivos en el tratamiento de la dislexia”	6	7,3%	16	19,5 %	60	73,2 %
“22. Proporcionar ayudas a los alumnos con dislexia como tiempo extra para realizar tareas, dictados más cortos,	4	4,9%	76	92,7 %	2	2,4%

asiento cerca del profesor, es injusto para el resto de alumnos”						
“23. Los programas de intervención que enfatizan los aspectos fonológicos del lenguaje con el apoyo visual de las letras son efectivos para los alumnos con dislexia”	67	81,7%	3	3,7%	12	14,6 %
“24. La mayoría de los profesores reciben instrucción específica para trabajar con alumnos con dislexia”	4	4,9%	71	86,6 %	7	8,5%
“26. Las técnicas de lecturas repetidas del material de lectura son útiles para mejorar la fluidez lectora”	35	42,7%	16	19,5 %	31	37,8 %
“28. Los alumnos con dislexia necesitan una enseñanza estructurada, secuencial y directa en habilidades básicas y estrategias de aprendizaje”	61	74,4%	2	2,4%	19	23,2 %

(My own elaboration, including data from the SPSS analysis of the survey)

4.1.5. Outcomes

After spreading the Google Form and analyzing participant's answers, some ideas and conclusions can be observed. In this section all of them are compile due to the fact that they have been taken into account for the design of the workshop presented in section 4.2.

Firstly, it can be affirmed that a higher percentage of people of the lower range of ages have participated in the study. From this fact, it cannot be said that people of a higher range of ages have less interest in the topic, but it can be because of the spreading procedure that has been followed; that is to say, by using social networks, such as WhatsApp and LinkedIn. However, independently of the reason, it is important to consider that the data of this study have more participants that have studied the Degree of Primary Education of the Master's Degree of Secondary Education than in other previous studies. At the same time it is essential to highlight that not all knowledge of teachers depends on their initial university studies, but also on in-service training. Nonetheless, in the study, it is shown that only 12,2% of participants have done specific training about dyslexia and there is not any relevant difference depending on the different initial studies (Degree in Primary Education, Master's Degree in Secondary Education, CAP or Diploma), as reflected in Table 17 and Table 18. Thereby, in this study it is going to be possible to conclude whether in-service training for teachers about dyslexia is necessary or not.

Table 17.*Relationship between studies and specific training*

Studies * Specific training about dyslexia Crosstabulation

		Specific training about dyslexia		Total
		Yes	No	
Studies	Degree in Primary Education	Count	3	32
		Expected Count	4,3	35,0
		% within Studies	8,6%	91,4%
		% within Specific training about dyslexia	30,0%	44,4%
	Master's Degree in Secondary Education	Count	3	19
		Expected Count	2,7	19,3
		% within Studies	13,6%	86,4%
		% within Specific training about dyslexia	30,0%	26,4%
	CAP	Count	1	12
		Expected Count	1,6	13,0
		% within Studies	7,7%	92,3%
		% within Specific training about dyslexia	10,0%	16,7%
	Diploma	Count	3	9
		Expected Count	1,5	10,5
		% within Studies	25,0%	75,0%
		% within Specific training about dyslexia	30,0%	12,5%
	Total	Count	10	72
		Expected Count	10,0	82,0
		% within Studies	12,2%	87,8%
		% within Specific training about dyslexia	100,0%	100,0%

(My own elaboration, including data from the SPSS analysis of the survey)

Table 18.*Chi-Square Tests*

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2,556 ^a	3	,465
Likelihood Ratio	2,262	3	,520
Linear-by-Linear Association	1,356	1	,244
N of Valid Cases	82		

a. 4 cells (50,0%) have expected count less than 5. The minimum expected count is 1,46.

(My own elaboration, including data from the SPSS analysis of the survey)

Secondly, there are items from the three different categories that lots of teachers have answered incorrectly or “no lo sé”. Specifically, there is widespread ignorance about some of the general information items due to the fact that 11 out of 17 items have been answered incorrectly or “no lo sé” by more of 50% of participants. Regarding symptoms or diagnosis of dyslexia, better outcomes in general can be observed since 6 out of 9 items have been answered correctly by more of 50% of participants. However, one of the items of this category has the

worst outcomes of the studies. This item is number 15 and it affirms that intelligence test are useful in the detection of dyslexia. The correct answer is yes, as is indicated in Appendix 2, but only 7,3% of participants choose “yes”. Therefore, this aspect is important to be revised in the workshop because it is important to emphasize that this test was given to the specialist to rule out of other possible reasons why the child has difficulty reading or writing. As regards the treatment of dyslexia category, 4 out of 9 items have been answered incorrectly or “no lo sé” by more of 50% of participants.

Once the answers for the different categories have been presented, it is important to mention that it has been analyzed if there is any relationship between the answers of the participants in the different items and their initial studies. In most of the cases it cannot be said that there is a remarkable higher knowledge in a group of participants (Degree in Primary Education, Master’s Degree in Secondary Education, CAP or Diploma). Nonetheless, there are specific items in which establishing a relationship it is possible, such as the item related to the use of glasses to decrease difficulties caused by dyslexia. In this item, depending on the initial studies of the participants of the study it can be observed that their knowledge about dyslexia is higher or lower. Specifically, we can observe in Table 19 and Figure 14 that 62% of participants who studied the Degree in Primary Education answered correctly this item as opposed to 25% of participants who studied the Master’s Degree in Secondary Education, to 6,3% who studied CAP or 6,3 who have a diploma.

Table 19.

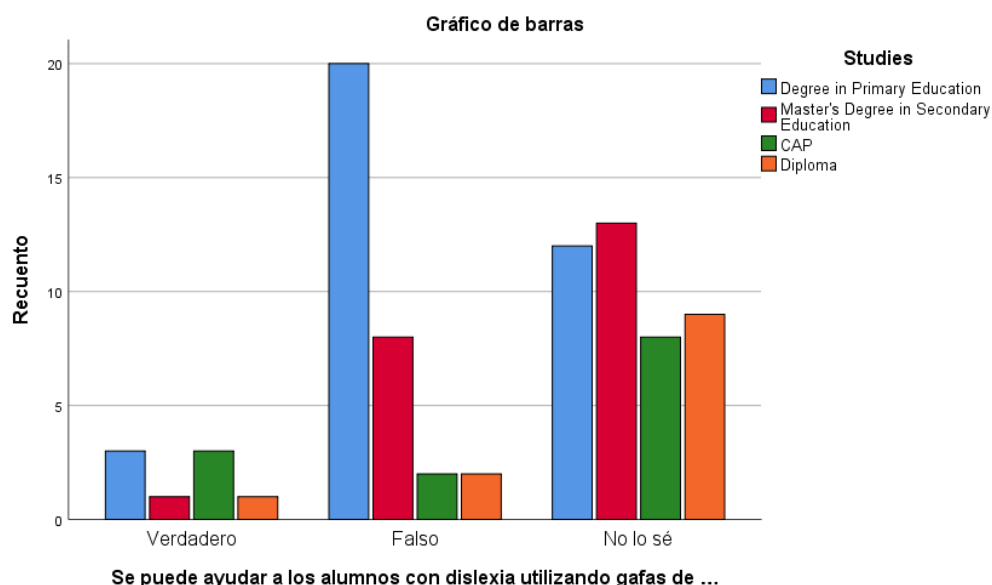
Relationship between using glasses to decrease difficulties caused by dyslexia and studies

Tabla cruzada Se puede ayudar a los alumnos con dislexia utilizando gafas de colores *Studies							
		Degree in Primary Education	Studies Master's Degree in Secondary Education	CAP	Diploma	Total	
Se puede ayudar a los alumnos con dislexia utilizando gafas de colores	Verdadero	Recuento	3	1	3	1	8
		Recuento esperado	3,4	2,1	1,3	1,2	8,0
		% dentro de Se puede ayudar a los alumnos con dislexia utilizando gafas de colores	37,5%	12,5%	37,5%	12,5%	100,0%
		% dentro de Studies	8,6%	4,5%	23,1%	8,3%	9,8%
	Falso	% del total	3,7%	1,2%	3,7%	1,2%	9,8%
		Recuento	20	8	2	2	32
		Recuento esperado	13,7	8,6	5,1	4,7	32,0
		% dentro de Se puede ayudar a los alumnos con dislexia utilizando gafas de colores	62,5%	25,0%	6,3%	6,3%	100,0%
	No lo sé	% dentro de Studies	57,1%	36,4%	15,4%	16,7%	39,0%
		% del total	24,4%	9,8%	2,4%	2,4%	39,0%
		Recuento	12	13	8	9	42
		Recuento esperado	17,9	11,3	6,7	6,1	42,0
		% dentro de Se puede ayudar a los alumnos con dislexia utilizando gafas de colores	28,6%	31,0%	19,0%	21,4%	100,0%
		% dentro de Studies	34,3%	59,1%	61,5%	75,0%	51,2%
		% del total	14,6%	15,9%	9,8%	11,0%	51,2%
		Total	Recuento	35	22	13	12
	Recuento esperado	35,0	22,0	13,0	12,0	82,0	
	% dentro de Se puede ayudar a los alumnos con dislexia utilizando gafas de colores	42,7%	26,8%	15,9%	14,6%	100,0%	
	% dentro de Studies	100,0%	100,0%	100,0%	100,0%	100,0%	
	% del total	42,7%	26,8%	15,9%	14,6%	100,0%	

(My own elaboration, including data from the SPSS analysis of the survey)

Figure 14.

Relationship between using glasses to decrease difficulties caused by dyslexia and studies



(My own elaboration, including data from the SPSS analysis of the survey)

The fact that in some answer more than 50% of participants replied “no lo sé” can be positive because completing the survey has made participants realize their lack knowledge about dyslexia. Thereby, some of them would need to learn more about the topic after the survey and that fact is positive for their future students.

From these outcomes, it is possible to affirm with evidences that there are misconceptions about dyslexia among teachers. Therefore, an in-service training about the topic could be useful to clarify the most important and controversial items from the three categories.

4.2. Workshop

In this section the online workshop designed in order to get both to promote the consideration of learning difficulties of students with dyslexia to design the lessons and to foster the adaptation of materials and evaluation procedures to students with dyslexia is presented. The implementation of this workshop took place the 17th of May of 2022 at 14:00. Specifically, it forms part of a group of online workshops that were celebrated in the conference entitled *12º Encuentro DIM-COMUNICAR de centros innovadores de Andalucía*, one of the multiple conferences that were organized by DIM-Group in 2021-2022 academic year. These conferences include both online workshops and face-to-face speeches and the different

activities organized are carried out in Spanish. Thereby, the language used to speak in the workshop designed for this MA Dissertation is Spanish and the presentation is also in Spanish, as can be observed in Appendix 5.

In table 17 the online workshop designed taking into account the outcomes from the survey, is exposed. Specifically, the workshop has the following objectives:

- To clarify what developmental dyslexia implies, its prevalence and its neurological reason.
- To present general tips to apply in the classroom to promote students with dyslexia success.
- To divulge methodologies and technological resources that have proven to be useful for students with dyslexia.
- To present items to follow so as to design more understandable and clear texts for students with and without dyslexia.

Table 20.

Workshop about dyslexia

Online Workshop about Dyslexia		
12º ENCUESTRO DIM-COMUNICAR DE CENTROS INNOVADORES EN ANDALUCÍA		
Time: 30 minutes		
Description	Time	Slide
Presentation of myself as the speaker and the main organization of the online workshop	2 mins	1-2
In the first part of the online workshop, the main goal is to clarify what the developmental dyslexia is and what it implies. In order to do it the definition from the International Association of Dyslexia is presented. That is to say, the relationship between the difficulties of fluency and accuracy in reading and decoding and spelling skills is elucidated.	3 mins	3

After the clarification of developmental dyslexia, data on prevalence is presented and the effect that dyslexia can have on self-esteem is highlighted.	2 mins	4
In this part some good practices to be applied in the classroom to foster students with dyslexia success are presented, such as more time to complete tasks and exams and a location close to the teacher in the class. Moreover, two myths about dyslexia are refuted (wearing colored glasses to reduce vision difficulties and using medicines to eradicate dyslexia)	5 mins	5
In this part, the multisensory language structured learning is presented and its benefits for students with dyslexia.	3 mins	6
The benefits of technologies on students with dyslexia is presented and some examples of technological resources are presented (text readers, spell checkers and speech to text tools)	3 mins	7
The items to follow to design more understandable and clear texts for students with and without dyslexia are presented.	3 mins	8
Tips from the participants of the survey to adapt the session design to students with dyslexia	4 mins	10-11
Time to share perspectives and to complete the degree of satisfaction	5 mins	13
Resources		
Canva presentation: https://acortar.link/SnMvOi (Appendix 5)		
Assessment of degree of satisfaction		
Attendants have some minutes at the end of the class to complete a survey about their degree of satisfaction. This survey is explained with more detail in section 4.3.		

(My own elaboration)

4.3. Analysis of the implementation of the workshop

After implementing the workshop it can be affirmed that the proposed objectives for the workshop were achieved. However, I had some time management problems, so I could not say all the information and examples that I had prepared finally to respect the planned time. Therefore, a deeper explanation of each aspect could have been possible with more time.

Moreover, as it is indicated in section 4.2., attendants have time to share their opinion and complete a survey about their satisfaction in the last part of the workshop. The survey has 4 items; 3 of them are scalar items, and 1 is an open question. Attendants can choose from 1 to 10 in scalar items, which are the following:

- “Los contenidos son congruentes con el propósito del taller”
- “¿Consideras que lo aprendido puede ser útil para tu desarrollo personal o profesional?”
- “¿Recomendarías el taller *La dislexia en el aula de Inglés?*”

As regards the open question, it is as follows:

- ¿Hay algo más que te gustaría compartir sobre el taller?

From the data analysis of these items, it is possible to affirm that all the attendants thought that the content exposed was congruent with the topic and main goal of the workshop, as can be observed in Table 18. Moreover, it can be observed that attendants considered that the information could be useful for their professional and personal development and they would highly recommend the workshop, as can be observed in Figure 15 and Figure 16 respectively.

Table 21.

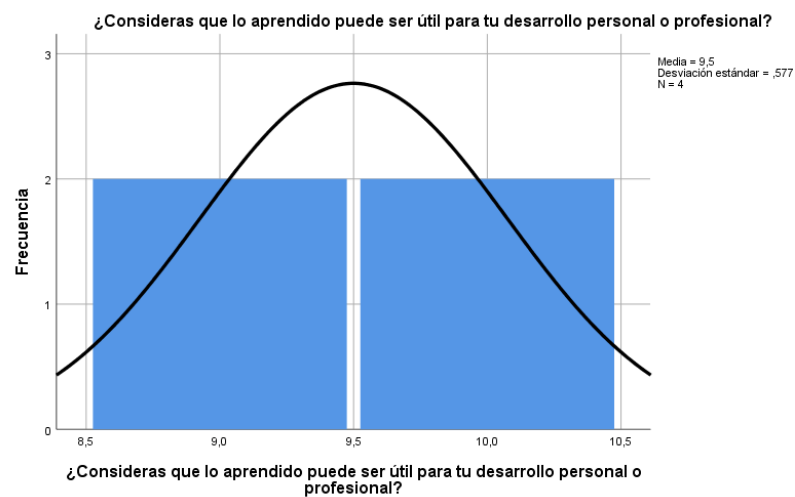
Content assessment

Los contenidos son congruentes con el propósito del taller					
		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válido	Muy de acuerdo	4	100,0	100,0	100,0

(My own elaboration, using SPSS)

Figure 15.

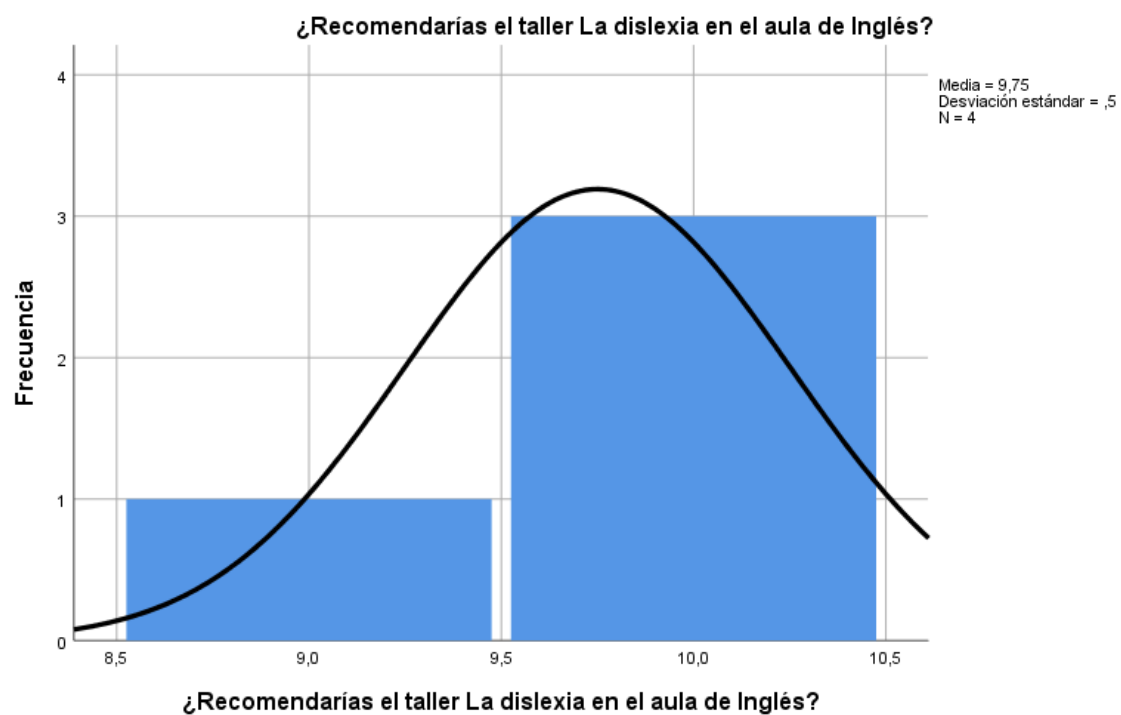
Utility



(My own elaboration, using SPSS)

Figure 16.

Level of satisfaction



(My own elaboration, using SPSS)

5. CONCLUSIONS

This MA Dissertation had the goal to design an in-service training workshop for teachers about dyslexia in order to promote both objectives established in section 2; that is to say, in order to promote the consideration of learning difficulties of students with dyslexia to design the lessons, and to foster the adaptation of materials and evaluation procedures to students with dyslexia.

In order to design the workshop and achieve these goals it was necessary to analyse the current knowledge and beliefs of the English teachers who participated in the study. Besides, a research about dyslexia and teaching adaptations to students with this learning difficulty was necessary, including legal aspects relative to the topic.

Although the previous procedure was followed and the workshop was implemented, the achievement of both goals was limited because only four people attended the online workshop. Taking into account that some people contact me because they wanted to participate, but they work at 14:00, I propose to do the workshop again in a close future in a different hour, so teachers who are working in a school or high school have the chance to attend. I think that this will have a positive impact because the achievement of the proposed goals will be higher, since more teachers will have the chance to implement the guidelines presented in the workshop. Besides doing the workshop again in a near future, I propose to keep on researching and learning about diversity in the English classroom in order to progressively adapt my classes to the needs and motivations of all my students. Moreover, I propose to keep sharing the others' knowledge learnt from the research in conferences because although not a lot of people were listening to me, the audience was satisfied with the workshop and they said that it was useful for them. Besides helping other teachers to improve their knowledge about diversity, I will organize a conference again because preparing a 30 minutes workshop has helped me to choose the more important information and organize the knowledge; thereby, I consider that it has helped me to understand better the different important aspects about dyslexia that an English teacher should consider.

Finally, I consider that it is essential to conclude the MA Dissertation highlighting the importance of in-service teacher training for two main reasons. On the one hand, because it is great to have the chance to benefit from others knowledge to learn not only theoretical but also practical knowledge that is possible to implement in the classroom. Regarding this aspect I have attended different courses and conferences since I finished my degree in Education and I enjoy listening to the other's experiences and learning from other teachers or professionals. However, it is important not only to learn from the others but also to share our knowledge with the others.

Consequently, the second main reason why in-service teacher training is important is that when we share our knowledge with the others we understand even better it while we are giving other teachers the chance to learn from us.

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7. APPENDICES

Appendix 1. Items of the questionnaire

Document shared by Manuel Soriano-Ferrer, a co-author of the questionnaire.



Escala de Conocimientos y Creencias acerca de la Dislexia Evolutiva

(Soriano-Ferrer y Echegaray-Bengoa, 2014)

Nombre:.....

Por favor, responda a las siguientes cuestiones sobre la dislexia evolutiva. Marque con una "X" la casilla rodea "V" si cree que la afirmación es cierta, "F" si cree que es falsa, y "NS" si no la sabe. Si no estás seguro de la respuesta, responda "No lo sé", no intente adivinarla.

1	La dislexia es el resultado de problemas neurológicos.	V	F	NS
2	La dislexia está causada por un déficit visoperceptivo, por eso invierten las letras y las palabras.	V	F	NS
3	Un niño puede ser disléxico y superdotado.	V	F	NS
4	La mayoría de los alumnos con dislexia suelen tener problemas sociales y/o emocionales.	V	F	NS
5	El cerebro de las personas con dislexia es diferente del de las personas sin dislexia.	V	F	NS
6	La dislexia es hereditaria	V	F	NS
7	La mayoría de los estudios señalan que alrededor del 5% de los alumnos en edad escolar tienen dislexia.	V	F	NS
8	La dislexia es más frecuente en hombres que en mujeres.	V	F	NS
9	Generalmente, las personas con dislexia tienen problemas en la conciencia fonológica (p.e. habilidad para percibir y manipular sonidos del lenguaje).	V	F	NS

1 Soriano-Ferrer, M. y Echegaray-Bengoa, J. (2014). A Scale of Knowledge and Beliefs about Developmental Dyslexia: Scale Development and Validation. *Procedia, Social and Behavioral Sciences*, 132, 203-208.

10	Las técnicas de lectura fluida suelen emplear el modelado como técnica de enseñanza.	V	F	NS
11	Los niños con dislexia tienen una inteligencia por debajo del promedio.	V	F	NS
12	La lectura de los alumnos con dislexia suele caracterizarse por la inexactitud y por la falta de fluidez lectora.	V	F	NS
13	La principal característica de la dislexia son las inversiones de letras o palabras.	V	F	NS
14	Las dificultades con el procesamiento fonológico de la información es uno de los déficits importantes de la dislexia.	V	F	NS
15	Las pruebas de inteligencia son útiles en la identificación de la dislexia.	V	F	NS
16	Todos los chicos que leen mal son disléxicos.	V	F	NS
17	Se puede ayudar a los alumnos con dislexia utilizando gafas de colores.	V	F	NS
18	Los médicos pueden recetar medicamentos que ayuden a los alumnos con dislexia.	V	F	NS
19	En la actualidad, se ha demostrado que los métodos multisensoriales no son efectivos en el tratamiento de la dislexia.	V	F	NS
20	Llamamos disléxicos a los alumnos que tienen problemas para aprender a leer sin que exista una causa aparente.	V	F	NS
21	Los niños con dislexia no son tontos ni vagos. Saber acerca de la dislexia puede ayudarles.	V	F	NS
22	Proporcionar ayudas a los alumnos con dislexia como tiempo extra para realizar tareas, dictados más cortos, asiento cerca del profesor,...es injusto para el resto de alumnos.	V	F	NS
23	Los programas de intervención que enfatizan los aspectos fonológicos del lenguaje con el apoyo	V	F	NS

2 Soriano-Ferrer, M. y Echegaray-Bengoa, J. (2014). A Scale of Knowledge and Beliefs about Developmental Dyslexia: Scale Development and Validation. *Procedia, Social and Behavioral Sciences*, 132, 203-208.

	visual de las letras son efectivos para los alumnos con dislexia.	
24	La mayoría de los profesores reciben instrucción específica para trabajar con alumnos con dislexia.	V F NS
25	Creo que la dislexia es un mito, un problema que no existe.	V F NS
26	Las técnicas de lecturas repetidas del material de lectura son útiles para mejorar la fluidez lectora.	V F NS
27	Los problemas en el establecimiento de la lateralidad (esquema corporal) son la causa de la dislexia	V F NS
28	Los alumnos con dislexia necesitan una enseñanza estructurada, secuencial y directa en habilidades básicas y estrategias de aprendizaje.	V F NS
29	El término dislexia hace referencia a un problema relativamente crónico, que no suele superarse por completo.	V F NS
30	Muchos alumnos con dislexia siguen teniendo problemas con la lectura cuando son adultos.	V F NS
31	Muchos alumnos con dislexia tienen baja autoestima.	V F NS
32	Los niños con dislexia tienen problemas para leer con exactitud, pero no tienen dificultades con la comprensión del lenguaje oral.	V F NS
33	Aplicar un test de lectura individual es imprescindible para diagnosticar la dislexia.	V F NS
34	Generalmente, los disléxicos suelen tener un rendimiento malo en ortografía.	V F NS
35	La dislexia suele durar mucho tiempo.	V F NS
36	Los disléxicos tienen problemas para leer con fluidez.	V F NS

Appendix 2. Correct answers for the questionnaire

Document shared by Manuel Soriano-Ferrer, a co-author of the questionnaire.

	Escala de Conocimientos y Creencias acerca de la Dislexia Evolutiva / Knowledge and Beliefs about Developmental Dyslexia Scale (KBDDS). (Soriano-Ferrer y Echegaray-Bengoa, 2014) Corrección /Scoring
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ITEMS	ESCALA / Scale	RESPUESTA / Correct response
1	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V /True
2	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	F /False
3	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V /True
4	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
5	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
6	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
7	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
8	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
9	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
10	TRATAMIENTO / TREATMENT	V/ True
11	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	F/False
12	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
13	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	F /False
14	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
15	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
16	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	F /False
17	TRATAMIENTO / TREATMENT	F /False
18	TRATAMIENTO / TREATMENT	F /False

19	TRATAMIENTO / TREATMENT	F /False
20	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
21	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
22	TRATAMIENTO / TREATMENT	F /False
23	TRATAMIENTO / TREATMENT	V/ True
24	TRATAMIENTO / TREATMENT	F /False
25	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	F /False
26	TRATAMIENTO / TREATMENT	V/ True
27	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	F /False
28	TRATAMIENTO / TREATMENT	V/ True
29	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
30	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
31	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
32	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
33	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
34	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True
35	CONOCIMIENTOS GENERALES / GENERAL INFORMATION	V/ True
36	SÍNTOMAS/ DIAGNOSTICO / SYMPTOMS /DIAGNOSIS	V/ True

-

Conocimientos (Knowledge)= $\sum$ Respuestas correctas /Correct responses

Errores (Misconceptions)= $\sum$ Respuestas erróneas / Incorrect responses

Lagunas de conocimiento (Lacks of information)= $\sum$ Respuestas "No lo sé" /"Don't know" responses

Appendix 3. Questionnaire validated by Dr. Daniel Madrid Fernández

1. Aspectos sociodemográficos

Sexo (Nominal)

- Hombre
- Mujer

2. Grupo de edad (Ordinal)

- Menor de 30 años
- 30-39 años
- 40-49 años
- 50-59 años
- 60 y más

3. Años de experiencia docente (Ordinal)

- Menos de 5 años
- 5-10 años
- 11-15 años
- 16-20 años
- 21-25 años
- 26-30 años
- Más de 30 años.

4. Etapa educativa en la que se imparte docencia (nominal)

- Educación Primaria
- Educación Secundaria Obligatoria

5. Estudios que le permiten ejercer la profesión docente (nominal)

- Grado en Maestro/a de Educación Primaria
- Máster Secundaria
- CAP
- Diplomatura

6. Comunidad Autónoma o ciudad autónoma donde ejerce la profesión docente (nominal)

- Andalucía
- Aragón
- Cantabria
- Castilla-La Mancha
- Castilla y León
- Cataluña
- Ceuta
- Comunidad Foral de Navarra

- Comunidad Valenciana
- Comunidad de Madrid
- Extremadura
- Galicia
- Islas Baleares
- Canarias
- La Rioja
- Melilla
- País Vasco
- Principado de Asturias
- Región de Murcia

7. Formación específica sobre dislexia (nominal)

- Sí
- No

8. En caso de haber respondido sí en la pregunta anterior, especifica qué tipo (PREGUNTA ABIERTA):

9. ¿Has tenido o tienes estudiantes con dislexia en el aula? (nominal)

- Sí
- No
- NS

10. Autoeficacia (ordinal)

- No me siento preparado/a para trabajar con alumnado con dislexia
- Me siento algo preparado/a para trabajar con alumnado con dislexia
- Me siento bastante preparado/a para trabajar con alumnado con dislexia

11. ¿Qué adaptaciones de acceso recomendarías para favorecer el aprendizaje de lenguas extranjeras en el alumnado con dislexia? (indica si se aplican a todo el alumnado del aula o a nivel individual) (PREGUNTA ABIERTA)

12. ¿Qué actividades o recursos recomendarías usar para fomentar el aprendizaje del Inglés en alumnos/as con dislexia? (PREGUNTA ABIERTA)

Appendix 4. Answers to open questions

Answers to question 8 (*En caso de haber respondido sí en la pregunta anterior, especifica qué tipo*)

- Cursos y especialidades AL y PT.
- Cursos.
- Mi Máster en Pedagogía Hospitalaria cursado en la UB dedicó una parte de la formación a la intervención de niños con trastorno específico del lenguaje.
- Pedagogía terapéutica, y práctica profesional.
- Cursos y seminarios.
- En la universidad se estudian diferentes trastornos del lenguaje.
- Curso de atención a la diversidad, Logoss.
- Un curso de 17h online “Supporting children with difficulties in reading and writing”.
- Un curso MOOC.
- Formación para detectar dislexia y sus necesidades.

Answers to question 11 (*¿Qué adaptaciones de acceso recomendarías para favorecer el aprendizaje de lenguas extranjeras en el alumnado con dislexia? (indica si se aplican a todo el alumnado del aula o a nivel individual)*)

- No penalizar los errores de *spelling*. No hacerles leer en alto delante de otros alumnos. Tipografía más grande y clara. Darles más tiempo en los exámenes o acortar las preguntas.
- DUA.
- Adaptar actividades adecuadas para los alumnos con esas características y que puedan hacer todos.
- Utilizar soporte visual siempre, tanto a nivel individual como de grupo.
- Yo utilizo *Flipped Classroom* y gamificación. El fracaso escolar al que me enfrento suele ser falta absoluta de interés no solo en inglés sino en cualquier asignatura. Si, además, alguno de ellos son disléxicos lo desconozco. Sí que sé que he tenido alumnos con dislexia que han trabajado de manera excelente y sacado buenas notas con mi metodología habitual.
- Las adaptaciones que recomendaría para que un alumno con dislexia aprendiese la lengua extranjera sería realizar textos adaptados para que les fuese más fácil comprender

la lectura del mismo. Serían textos con vocabulario algo más sencillo y subrayando aquellas palabras o frases que puedan ser de utilidad a la hora de comprender ese texto y realizar actividades. Serían actividades solo para ese tipo de alumnos.

- Metodológicas, apoyos visuales, exámenes orales.
- Textos más cortos, ayuda de imágenes.
- Priorizar actividades y dinámicas de carácter oral. Uso de recursos visuales y audiovisuales.
- Interlineado más espaciado, tipografía de letra. A nivel individual.
- Modificar los textos escritos, usando tipografías *dyslexic-friendly*, ampliar el tamaño de letra, el interlineado y el espacio entre las letras. Graduar las actividades, permitiendo que el alumno dislexico responda a preguntas de opción múltiple en vez de preguntas abiertas. Permitirle que escriba usando las TIC, en programas con autocorrector. Permitirle que use apps como *Google lens* o *speechify* para que le lean el texto. Crear pequeños audios e introducirlos en la actividad en forma de códigos QR para que el alumno pueda leer y escuchar la voz del maestro a la misma vez.
- Adaptaciones individuales - Relativo a la metodología: enseñanza estructurada y reducir o fragmentar actividades. - Relativo a las actividades: que sean progresivas y multisensoriales, para que el canal de acceso no sea meramente el lingüístico. Simplificar la cantidad de actividades y centrar su atención en las básicas para alcanzar objetivos. - Relativo a soportes: hacer uso de soportes sonoros y especialmente visuales, para el aprendizaje de vocabulario a través del sonido, así como para aprender grafía desde soportes visuales como *PowerPoint*. - Relativo al desarrollo fónico: hacer uso del aspecto fónico para acompañar a la grafía en la que el alumno tiene especial dificultad. - Relativo a la coordinación: garantizar el trabajo común entre profesorado, profesionales externos (ej. logopedia) y familia. Adaptaciones globales - Utilizar preguntas concretas, insistiendo en respuestas concretas. - Planificar una estructura de aula concreta, situando a los alumnos por grupos garantizando que en todos ellos tengamos alumnos con nees combinados con alumnos guía.
- Hacer las clases más orales.
- 1- Input multimodal, siempre, para todo el alumnado. 2- Más tiempo de proceso que el resto, para la autocorrección individual. 3- Soporte kinésico para la expresión, para todos (p.e. gestos con lenguaje de signos, o signos acordados). 4- Prácticas óculo-manuales para alumnos específicos para memorizar la grafía. 5- Estudio ortográfico con canciones y paquetes de léxico de escritura afín)...

- Utilizar de forma principal la expresión oral para pasar a la expresión escrita como último lugar.
- A nivel global siempre trabajo inicialmente el vocabulario de forma visual, y las actividades de este tipo creo que resultan más sencillas al alumnado con dislexia. De forma individual, se puede utilizar material de apoyo, ejercicios y exámenes adaptados con menor texto y negrita, y según el objetivo de la actividad permitir copiar las palabras o añadir algunas letras.
- Uso de fuente Verdana 14. Un 10% más de tiempo para exámenes. Estas medidas se toman solo para con los alumnos con dislexia reconocida/diagnosticada tras haber consultado la PT del centro.
- Aplicaría las estrategias del diseño universal de aprendizaje que tienen que ver con la representación de la información sobre todo haciendo énfasis en la percepción de la información.
- No se hacen adaptaciones.
- Aunque con mascarilla nos resulte difícil, repetir la pronunciación partiendo de sonidos del español o parecidos me resulta funcional.
- Métodos más visuales, menos de palabra escrita.
- No se cuentan las faltas de ortografía, se facilitan listas de vocabulario y estructuras gramaticales simplificadas solo a nivel individual pero, personalmente lo comparto a toda la clase porque puede ser de ayuda para todos.
- Explicación de las tareas a realizar en voz alta, entregar los ejercicios con mayor letra y espaciado. Diversidad de ejercicios: elegir opciones, rodear, desarrollar... Reducir los ejercicios y que sean más cortos.
- Trabajar primero lo oral y para todo el aula. Dejarles más tiempo individualmente para terminar.
- Lecturas más sencillas, acceso al vocabulario de forma permanente en el aula, ampliación de tiempos, reducción de tareas en determinadas ocasiones.
- A nivel individual, cambiar el formato del examen (tipo de letra, tamaño), dar más tiempo para hacerlo.
- Tipo de letra Arial 12 / Mayor separación entre las líneas del texto / Aprendizaje por sílabas o sonidos.
- Fomentar *speaking* mediante pruebas orales, graduar la introducción de *reading* y palabras de vocabulario y no corregir de manera estricta las producciones escritas del alumno.

- Tiempo extra, utilización de imágenes.
- Probablemente sea cuestión de intuición, pero, a nivel de aula, potenciaría aquellas actividades que implicasen el uso de las habilidades orales. Sin embargo, desconozco qué sería recomendable llevar a cabo a nivel individual.
- Individualmente: aumentar la letra en escritos, no contar faltas de ortografía según qué errores (cambios de letras), simplificar enunciados, poner en negrita las palabras clave de un enunciado/texto corto. A todo el alumnado: poner el significado o definición de las palabras más difíciles y un sinónimo.
- Enfocar siempre las tareas desde varias perspectivas y que el objetivo final(goal) sea evaluable, también, desde diferentes perspectivas. Tener hacia el alumnado una mirada global y sensible potenciando sus puntos fuertes.
- Soporte visual, aclaración de potenciales dificultades.
- Adaptar los exámenes: letra grande, leer las instrucciones en alto y dejar más tiempo para la realización de los mismos. En los dictados, por ejemplo, no puntuo de la misma manera las faltas que a un alumno sin necesidades educativas especiales.
- Intentar trabajar oral todo lo que se pueda((individual).
- De lo primero que hago en clase y al inicio de cada tema es adaptar cualquier material escrito a uno audiovisual. Esto no sólo me sirve como recurso facilitados para el alumno o la alumna con dislexia, también para el resto de la clase. De manera que aquellos alumnos con menos conocimientos de la lengua vehicular sigan el ritmo de la clase.
- Usar la fuente *opendyslexic* para fichas, flashcards, etc. Hacer juegos de asociación de letras como *crosswords* o *wordsearch*. Ambas cosas se pueden aplicar a todo el alumnado.
- Menor cantidad de vocabulario por escrito.
- Textos escritos adaptados en cuanto a la presentación y formato (fácil lectura) para todos.
- Aplicable al grupo: actividades orales, muy beneficiosas para el aprendizaje del inglés. Repetición y *drilling* de estructuras de manera oral. Aprendizaje por imitación de sonidos, uso de materiales visuales (imágenes, pictogramas, etc.) para aprendizaje de vocabulario. Fomento de la lectura, a pesar de las dificultades. Aplicable al alumnado con dislexia: pruebas orales, lectura de los enunciados en actividades de clase, pruebas escritas junto al alumnado. Pedir al alumnado que te cuente lo que hay que hacer con sus palabras, sin leer. Valoración del mensaje, prestando atención a la gramática pero sin penalizar faltas de ortografía al mismo nivel. Fomento de la autoestima integrando al alumnado, haciendo que lea, que escriba al igual que el resto del alumnado.

- Uso de audiolibros, trabajar conjuntamente con otros alumnos sin estas características.
- Centrarnos en el enfoque comunicativo del idioma.
- Vocabulario sencillo, visual, con letras grandes.
- El uso de *pictogramas*.
- Repetición de palabras claves. No corrección de todas las faltas, dar más tiempo...
- Creo que se distinguen fácilmente los errores propios de la dislexia. Es cierto que dependiendo del nivel de conciencia de padres y alumnos de la existencia de la dislexia, sus errores propios de la patología, es menos perceptible. Necesita quizá del apoyo del profesor en releerle las preguntas en un examen y creo que es fundamental la confianza con el docente para poder pedir lo que necesita.
- Enunciados cortos y directos. Tipo de letra determinado (más grande y con más separación). Ejercicios en exámenes tipo test o con poco desarrollo en el que se valore su capacidad de comprensión.
- Los ajustes de formato y configuraciones multimedia están al alcance de todo el alumnado.
- Adaptación curricular (individual).

Answers to question 12 (*¿Qué actividades o recursos recomendarías usar para fomentar el aprendizaje del Inglés en alumnos/as con dislexia?*)

- Más actividades de *listening*.
- Actividades interactivas con *Plickers*, *Genially*.
- No soy profesora de inglés.
- Actividades manipulativas que fomenten habilidades orales.
- La *Flipped* proporciona contenidos accesibles 24/7 y multitud de contenidos interactivos e interesantes que, si bien no son específicos para la dislexia, sí que favorece que el alumnado se quiera exponer a ellos y, por tanto, mejorar sea cual sea su condición.
- Recomendaría el uso de cualquier TIC o herramientas más visuales para que el alumno pueda comprender y motivarse para aprender la lengua.
- Más orales
- Priorizar actividades y dinámicas de carácter oral. Uso de recursos visuales y audiovisuales.
- Uso de *Kindle* o *tablets* porque permite aumentar la letra, el espaciado e interlineado
- Actividades con imágenes, colores con sus nombres, etc.

- Los mismos que para alumnos sin dislexia, actividades lúdicas, manipulativas, comunicativas Recursos variados, combinando las nuevas tecnologías y recursos analógicos.
- Utilizar materiales con la letra más grande y hacer uso de actividades orales
- Igual que el punto anterior: 1- Input multimodal, siempre, para todo el alumnado. 2- Más tiempo de proceso que el resto, para la autocorrección individual. 3- Soporte kinésico para la expresión, para todos (p.e. gestos con lenguaje de signos, o signos acordados). 4- Prácticas óculo-manuales para alumnos específicos para memorizar la grafía. 5- Estudio ortográfico con canciones y paquetes de léxico de escritura afín)... Además, mucho trabajo en grupos multinivel con roles de apoyo mútuo.
- Rutinas, uso de palabras más frecuentes (*High Frequency Words*), juego *Memory*, *flashcards*.
- Creo que es importante potenciar la vinculación entre el sonido de las palabras y su grafía. Para esto haría actividades en pequeño grupo donde necesiten comunicar oralmente. Por ejemplo, un *I have, who has?*, un *Memory* donde deban pronunciar en voz alta...
- El uso de gramificación: <https://www.gamestolearnenglish.com/fast-english/>.
- Actividades multisensoriales. Actividades usando la PDI y la tablets, más interactivas y sobre todo actividades de lectura y escritura comprensiva con apoyo visual y oral.
- No escribir hasta 3º primaria Todo el aprendizaje de acciones y práctico. Juegos y materiales cooperativos.
- *Alphablocs*, video de dibujos que facilitan el aprendizaje de sonidos o fonética de la lengua inglesa.
- Material de carácter auditivo, reconocimiento de palabras tanto de forma escrita como fonológica.
- Actividades interactivas, juegos, junto con actividades tradicionales. Asimismo, entregar teoría explicada con cuadros, asociada con imágenes, diferenciando con colores.
- Material audiovisual.
- Pictogramas por ejemplo.
- Juegos y aplicaciones web que les motiven y les sean fáciles de utilizar
- Más práctica de las sílabas y el deletreo / Más escritura / Ordenar palabras y letras
- Juegos *online* u *offline* que permitan la asociación de palabras escritas e imágenes primero, y luego que permitan la correcta escritura en la lengua extranjera.
- Imágenes, símbolos, uniones.

- Actividades y ejercicios predominantemente orales, estrategias de tutorización entre iguales, uso de recursos audiovisuales variados, recursos y ejercicios diversos en los que se presenten los fonemas y las grafías a las que se asocian (ej.: escucha y lectura simultánea de canciones), animaciones lectoras...
- *Flashcards* con palabras, palabras escritas con una letra a cada color o cada sílaba a un color diferente.
- Buscar actividades motivadoras, la música, el trabajo en grupo. Últimamente he descubierto el *Classdojo* y les gusta mucho, usamos nuestros personajes para todo tipo de actividades y tiene herramientas como los vídeos que dan mucho de qué hablar.
- Favorecer el trabajo en equipo y las actividades orales: *role-playing*, expositions...
- Muchas repetición, mucha escritura. Jugar a juegos tipo *scrabble* para que cree palabras con letras y las ordene correctamente....
- Material adaptado para que este tipo de alumnado pueda trabajar más como y tranquilo.
- En cuanto a actividades/recursos, suelo utilizar la representación teatral en el aula. Por lo que mis clases suelen basarse más en la oralidad. Otro tipo de actividad puede ser el doblaje de películas de animación, en el que el alumnado pone voz a los personajes de películas de su elección en determinadas escenas. Pasando a los recursos, suelo hacer mucho uso de edpuzzle, una plataforma que he encontrado tremendamente útil con el alumnado que tiene dislexia.
- Aquellos que permitan al alumnado asociar cada letra de las palabras, como sopas de letras, el ahorcado, crucigramas...
- Canciones y juegos.
- Juego con letras móviles para trabajar la escritura del inglés y su asociación a imágenes.
- Gamificación: *Kahoots* con imágenes, pictogramas, mímica y dibujo y *guessing games*. En la medida de lo posible, realizar actividades de comprensión oral en las que las respuestas puedan darse tipo test o elección múltiple, donde la idea sea comprensible.
- Audiolibros.
- Actividades interactivas y AUDIOS.
- Mucho material visual y oral.
- Programa *AraWord*.
- Las mismas que los demás alumnos pero focalizando en palabras, estructuras... Con tarjetas, diccionarios, listas de palabras...
- En los *listenings* la dislexia suele ser menos evidente siento el *writing* la destreza en la que más se nota. Realmente, al no tener formación específica en cuanto a alumnos con

dislexia, las adaptaciones que realizo son ínfimas. Procuro no tomar en cuenta determinados errores cuando percibo que son propios de la patología. También es cierto que hay distintos grados y eso hace que lo puedas hacer con un alumno, no te sirva para otro. Tengo alumnos que han sido diagnosticados con edad muy temprana y son muy conscientes de sus “carencias” y eso hace más fácil la enseñanza de un idioma.

- Consultar publicaciones de Luz Rello y de diferentes asociaciones de dislexia.
- Textos adaptados.

Appendix 5. Presentation for the workshop

ALUMNADO CON DISLEXIA EN EL AULA DE INGLÉS



Estructura del taller

- 1) Clarificación dislexia evolutiva
- 2) Buenas prácticas en el aula
- 3) Compartimos experiencias



¿Qué es la dilexia?

Según la Asociación Internacional de Dislexia (IDA, 2002):

Una **Dificultad Específica de Aprendizaje (DEA)** de **origen neurobiológico**, caracterizada por la presencia de dificultades en la **precisión y fluidez** en el reconocimiento de palabras (escritas) y por un déficit en las habilidades de **decodificación** (lectora) y **deletreo**.

Déficit en las habilidades de decodificación y deletreo> Dificultades en la precisión y fluidez

★★★★★



Prevalencia

-----> Diferencias según la lengua

-----> Entre 5% y 10% en hablantes de español.

-----> Más frecuente la detección en nativos ingleses.

-----> La dislexia es más frecuente en hombres que en mujeres

-----> Muchos alumnos con dislexia tienen baja autoestima

-----> Muchos alumnos con dislexia siguen teniendo problemas con la lectura cuando son adultos.



(Rello, 2018, pp. 247-249)

¿Cómo podemos ayudar al alumnado con dislexia?

- > Tiempo extra para realizar tareas
- > Valoración distinta de los errores ortográficos
- > Asiento cerca del profesor
- > Modelado como técnica de enseñanza de la lectura.
- > Enfatizar los aspectos fonológicos del lenguaje con el apoyo visual de las letras.
- > Técnicas de lecturas repetidas del material de lectura son útiles para mejorar la fluidez lectora (facilitar el material con anterioridad)
- > Enseñanza estructurada, secuencial y directa en habilidades básicas y estrategias de aprendizaje.
- > Tratamientos multisensoriales

(Cuetos et al., 2019, pp. 66-80)

Mitos

- Utilizar gafas de colores
- Medicamentos

Aprendizaje multisensorial

- Se basa en el hecho de que aprendemos mejor cuando utilizamos más de un sentido durante el proceso de aprendizaje.
- Presentar los contenidos de manera directa, explícita y variada.
- Aprendizaje de la lectura y la escritura a través de los distintos sentidos.
- Gramática con colores. (Cimermanova, 2015, pp. 7-28)
- Ayuda a los estudiantes a aprender nuevo vocabulario, comprender mejor las reglas gramaticales y ganar estrategias útiles para la comprensión escrita.

(Romero, 2020, pp. 34-48)





¿Tecnologías en el aula?

- El uso del ordenador en el aula ha resultado muy efectivo en el campo de la educación especial. (Lin et al., 2017, pp. 76-87).
- Beneficioso a nivel didáctico y motivacional (Ecalte et al., 2009, pp. 218-238; Hilde & Reitsma, 2006, pp. 301-318; Kast et al., 2011, pp. 177-200)
- Tecnologías que disminuyen la barrera de la dislexia según Cueto et al. (2019, pp. 66-80):
 - Lectores de texto (*Google lens* o *speechify*)
 - Correctores ortográficos
 - Dictado automático



Diseño y contenido de textos

- >Arial, Courier, Helvetica y Verdana (letra sin serifa para lectura en pantalla)
- >Evitar Arial Itálica (disminuye de forma significativa la legibilidad para personas con y sin dislexia)
- >Tamaños de letra grandes (>14 en tamaño A4 y tamaño 18 para lectura en web)
- >Espaciado mayor a la distancia estándar
- >Fuente de color negro sobre colores cálidos de fondo (melocotón, anaranjado o amarillo)
- >Resaltar en negrita las ideas o palabras claves

"Lo que es bueno para la dislexia, también lo es para la población general"



¿Solamente al alumnado con dislexia?





TIPS

- "Gamificación: Bingo, *Taboo*, *Pictionary* (motivación)"
- "Incorporar vocabulario problemático"
- "Aprendizaje reiterado de palabras similares"
- "DUA"
- "Preguntas de opción múltiple en vez de preguntas abiertas"
- "Crear pequeños audios e introducirlos en la actividad en forma de códigos QR para que el alumno pueda leer y escuchar la voz del maestro a la misma vez"
- "Uso *flashcards*"
- "Explicación de las tareas a realizar en voz alta, entregar los ejercicios con mayor letra y espaciado. Diversidad de ejercicios: elegir opciones, rodear, desarrollar... Reducir los ejercicios y que sean más cortos"



TIPS

- "Garantizar el trabajo común entre profesorado, profesionales externos (ej. logopedia) y familia"
- "Fomento de la autoestima integrando al alumnado, haciendo que lea, que escriba al igual que el resto del alumnado"
- "No penalizar los errores de spelling. No hacerles leer en alto delante de otros alumnos. Tipografía más grande y clara. Darles más tiempo en los exámenes o acortar las preguntas"
- "La *Flipped* proporciona contenidos accesibles 24/7 y multitud de contenidos interactivos e interesantes que, si bien no son específicos para la dislexia, sí que favorece que el alumnado se quiera exponer a ellos y, por tanto, mejorar sea cual sea su condición"
- "Programa *AraWord*" (Software libre portal aragonés)

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