



Grado en Lengua y Literatura Inglesas

2022-2023

Dyslexia: the challenges and accomplishments in teaching English as a second language

Dislexia: os retos e logros na ensinanza do inglés como lingua estranxeira

Dislexia: los retos y logros en la enseñanza del inglés como lengua extranjera

Autora: Sofía María García Sierra

Tutora: Ana Isabel Codesido García

Trabajo de Fin de Grado presentado en la Facultad de Filología de la Universidad de Santiago de Compostela para la obtención del Grado en Lengua y Literatura Inglesas



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Formulario de delimitación do título e resumo
Traballo de Fin de Grao curso 2022/2023

APELIDOS E NOME:	García Sierra, Sofia María
GRAO EN:	Lingua e Literatura Inglesas
(NO CASO DE MODERNAS) MENCIÓN EN:	
TITOR/A:	Ana Codesido García
LIÑA TEMÁTICA ASIGNADA:	Lingüística e Procesamento de Linguas. Aplicacións

SOLICITO a aprobación do seguinte título e resumo:

Título: Dyslexia: the challenges and accomplishments in teaching English as a second language.
Resumo [na lingua en que se vai redacta-lo TFG; entre 1000 e 2000 caracteres]: In the Spanish Educational System, the study of a second language is compulsory since Pre-school. Most schools in the country have English as the second language instructed among centres. Nevertheless, given the differences with their mother tongue, such as spelling and pronunciation, English can seem complex for students. Still, nothing compared to the difficulties faced by students with dyslexia According to the DSM-5-TR (2022), dyslexia is a learning disability characterised "by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities". Consequently, teaching an L2 to those with difficulties with their L1 can become difficult for educators. The characteristics of the disability will help find better methods for students with dyslexia; in other words, studying the differences between people with dyslexia in Spanish and people with dyslexia in English will give us some insight into how the difficulties reflect so that we can assess them properly. Parallel to that, by looking at the Spanish and British teaching approaches for children with dyslexia, we can see the student's needs and the significant problems they face. Understanding the above is crucial to the paper's central theme: teaching dyslexic children a second language. By studying the current methods used in Spain to teach English as a second language to children with dyslexia, we intend to show the advantages and disadvantages of each technique used nowadays and the challenges and accomplishments the students and educators could encounter in the process. Therefore, the main objective of this paper is to show how dyslexia can affect the learning process not only in their mother tongue but also in a second language. In addition, we intend to illustrate how the structure of the Spanish Educational System and the currently available methods and strategies could imply challenges for children with dyslexia.

Santiago de Compostela, 24 de octubre de 2022.

Sinatura do/a interesado/a 	Visto e prace (sinatura do/a titor/a) 	Aprobado pola Comisión do Traballo de Fin de Grao coa data 25 NOV. 2022
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SRA. PRESIDENTA DA COMISIÓN DO TRABALLO DE FIN DE GRAO

Table of contents

Table of figures.....	6
Introduction.....	7
Chapter 1: The definition and characteristics of dyslexia	9
1.1 What is dyslexia?	9
1.2 Aetiology of dyslexia.....	10
1.3 How do dyslexic children read?	11
<i>1.3.1 Neuropsychological models.....</i>	<i>12</i>
<i>1.3.2 Psycholinguistic models</i>	<i>12</i>
1.4 Dyslexia through the errors.....	14
1.5 Difference between dyslexia in Spanish and dyslexia in English.....	15
<i>1.5.1 Dyslexia in Spanish</i>	<i>16</i>
<i>1.5.2 Dyslexia in English.....</i>	<i>18</i>
Chapter 2: Intervention and re-education of dyslexia.....	21
2.1 Legislation.....	21
<i>2.1.1 Spanish legislation.....</i>	<i>21</i>
<i>2.1.2 British legislation</i>	<i>23</i>
2.2 Teaching approaches	24
<i>2.2.1 Multisensorial education</i>	<i>25</i>
<i>2.2.2 Teaching approaches in Spanish.....</i>	<i>27</i>
2.2.2.1 Psychomotor education.....	27
2.2.2.2 Psycholinguistic development	29
2.2.2.3 Literacy training.....	30
2.2.2.4 “Adición de fonos” program.....	30
2.2.2.5 Word segmentation	31
2.2.2.6 “Lectura”	31
<i>2.2.3 Teaching approaches in English</i>	<i>32</i>
2.2.3.1 Alphabetic Phonics	32
2.2.3.2 Alpha to Omega	32

2.2.3.3 Letterland	35
2.2.3.4 Paired-reading	36
2.2.3.5 Jolly Phonics	37
Chapter 3: Teaching English as a second language to children with dyslexia.....	39
3.1 Comparison between Spanish programs and English programs	39
3.2 Aspects to consider before teaching a dyslexic child a second language.....	40
3.3 About methodology	43
3.4 Techniques to work on vocabulary.....	44
3.5 Techniques to work on the four skills: listening, speaking, reading, and writing..	46
3.5.1 <i>Techniques on listening</i>	46
3.5.2 <i>Techniques on speaking</i>	49
3.5.3 <i>Techniques on reading</i>	51
3.5.4 <i>Techniques on writing</i>	54
Conclusion	57
References.....	59

Table of figures

Figure 1. Example of written mistakes in children (Herrera, 2015)	17
Figure 2. Example of dyslexic writing (Paske, 2020).....	20
Figure 3. Self-dictation exercises and graphic support (Peña-Casanova, 2002, p. 361).....	26
Figure 4. Association of words with the letter (Outón, 2010, p. 15).....	27
Figure 5. Sequence of activities for mastering the body schema (Rivas Torres & Fernández Fernández, 1994, p. 80).....	28
Figure 6. Examples of spatiotemporal orientation activities (Rivas Torres & Fernández Fernández, 1994, p. 82).....	29
Figure 7. Psycholinguistic activities (Rivas Torres & Fernández Fernández, 1994, p. 88).....	29
Figure 8. Activities for literacy training (Rivas Torres & Fernández Fernández, 1994, p. 91)	30
Figure 9. Example for an activity in Stage One (Hornsby et al., 1999, p. 13).....	33
Figure 10. Exercises for Stage Two (Hornsby et al., 1999, p. 101).....	34
Figure 11. Exercise for learning multisyllabic words (Hornsby et al., 1999, p. 161).....	35
Figure 12. Activity on how to write and identify the letter <s> (Letterland, 2015, p. 6)	36
Figure 13. Activity on pronunciation of the letter <s> (Letterland, 2015, p. 7)	36
Figure 14. Example of paired-reading (Reid, 2009, p. 199)	37
Figure 15. Example of errors in vocabulary (Nijakowska et al., 2016, p. 92).....	45
Figure 16. Mnemonics activity for wh-questions (Nijakowska, 2016, p. 93)	45
Figure 17. Examples of activities for listening (Hernández García et al. 2018, p. 50).....	48
Figure 18. Activity on listening to Fork Tales (Starfalls, n.d. e)	49
Figure 19. Example of a speaking activity (Starfalls, n. d. a).....	51
Figure 20. Exercises on learning how to read (Starfalls, n. d. b).....	52
Figure 21. Story for learning short /e/ (Starfalls, n. d. c).....	53
Figure 22. Graphic organizers (Hernández García et al., 2018, p. 73)	54
Figure 23. Interactive writing (Starfalls, n. d. d)	56

Introduction

Since the creation of the Common European Framework of References for languages, foreign or second languages have been promoted at all levels of education. Most schools, consequently, choose English as the preferred foreign language due to its status as *lingua franca*. As a result, learning English has become a requirement, and although incredibly beneficial for children, it is a demanding and laborious subject for many students.

What is more, for speakers of Romance languages such as Spanish, studying a language with an obscure orthography, like English, becomes a difficult task to overcome. Despite being known as a complex subject for all students, there is no comparison to the challenges faced by people with learning disabilities. Interestingly enough, dyslexia is one of the most common learning difficulties, so there is a greater chance that one of our students has this disability. Thus, we decided to use this paper to highlight the achievements and challenges that we, as teachers, could face in teaching children with dyslexia a second language, such as English. We found this necessary because we believed a classroom should be a safe and inclusive environment for all students. Also, to underline the need for teachers to be prepared to teach children with and without disabilities.

The first chapter of this TFG comprises four points that aim to define and describe dyslexia. Starting with the core definition of dyslexia, we will see how the term has evolved to what we know now: a reading and writing difficulty. The definition will allow us to have a better understanding of the handicaps of dyslexic children in order to create a more inclusive environment in the classroom. The second point aims to describe the theories of the origins of the disability as it has become one of the many questions that resulted in the studies of dyslexia. It also allow us to have a thorough look of the disability and recognise the patterns for the intervention. Following that, we will focus on how children with dyslexia read to outline and identify problems presented in dyslexic children. Lastly, we will end this chapter by explaining the differences between the difficulties presented by Spanish and English speakers with dyslexia to analyse if similar complications exist and foreshadow possible challenges in teaching a second language.

After the definition, the second chapter will focus on re-education. In other words, rehabilitate children with dyslexia through education. We will begin by briefly introducing the legislation and protocol for the intervention of dyslexic students in the Spanish and British Educational

Systems. Then, we will immerse ourselves in the different methods and approaches used for Spanish speakers with dyslexia and English speakers with dyslexia. With this chapter, we aim to describe the current situation concerning the teaching of dyslexic children so that we can later adjust to teaching English as a second language (ESL).

Lastly, the final chapter will enclose the main objective of the TFG: teaching English as a second language to children with dyslexia. The first section of this chapter will compare the methods and approaches described in the second chapter to hypothesise which methods can help teach English to dyslexic children with Spanish as their mother tongue and which could only work in the language in which the approach was created. The second section of this chapter is devoted to aspects teachers must consider before teaching ESL to students with dyslexia, such as classroom management issues and attitudes towards the child. The accommodation will let us understand that if we want a successful lesson, we must focus on more than just the content of the class but the entire perspective of teaching. This section aims to reflect on children's difficulties while learning a second language and how teachers can develop a safe environment where children enjoy and learn English. Finally, we will discuss the current methodology for children with dyslexia in ESL classes and end with a detailed description of the teaching techniques to work on vocabulary and the four skills: speaking, listening, reading, and writing. We decided to describe the skills individually to outline the relevance of each skill and how it is presented in dyslexic children.

Chapter 1: The definition and characteristics of dyslexia

1.1 What is dyslexia?

The etymology of *dyslexia* comes from the Greek *dys* (bad) and *lexis* (word), which means a problem with speaking and diction (Rivas & Fernández, 1994, p. 17). However, the definition of dyslexia used nowadays by scholars relates specifically to reading and writing difficulties. The American Psychiatric Association or APA (2022, p. 78) defines *dyslexia* as “an alternative term used to refer to a pattern of learning difficulties characterized by issues with accurate or fluent word recognition, poor decoding, and poor spelling abilities.” Additionally, it is described as a difficulty with “learning to map letters with the sounds of one’s language—to read printed words.” (APA, 2022, p. 79)

Despite the agreement on dyslexia being a difficulty with reading and writing, there was a conflict on what makes someone dyslexic. Initially, the term *dyslexic* was exclusively used with people who had suffered trauma and, consequently, developed issues with reading and writing (Rivas Torres & Fernández Fernández, 1994, p. 18). This definition, although obscure, contributed to a differentiation repeatedly used among scholars: acquired dyslexia and developmental dyslexia. These two types of dyslexia differ in the origin of why a person could have dyslexia. Acquired dyslexia is the type of dyslexia that is a result of brain injury, but only if the subject has already developed the communicative skills; on the contrary, we call developmental dyslexia the one that shows symptoms at the initial stages of the learning process (Rivas Torres & Fernández Fernández, 1994, p. 18). This paper is going to focus on the latter.

As Gooch et al. (2011 in Johnston, 2019) explain:

The disorder causes deficits, in varying degrees of severity, that affects a person’s ability to properly hear distinctive and blended letter sounds, which causes difficulties in reading comprehension and fluency. This deficit in phonological processing results in difficulty with rapid naming, short-term memory, and articulation speed. In addition, dyslexia can interfere with a person’s ability to effectively use rapid-memory recall, organize thoughts and retrieving, and fluently express thoughts. (p. 339)

Therefore, developmental dyslexia is considered the one that presents an inability to learn to read despite the usual teaching, the socially appropriate environment, motivation, exact senses, average intelligence, and absence of neurological defects (Eisenberg, 1978 in Peña-Casanova, 2002, p. 346). Nijakowska (2010, p. 31) claims, “the discrepancy between dyslexic potential

and scholastic achievement is indisputably evident”. Even though there is no difference between the teaching process and their classmates, “the failure is incontestable despite teaching methods proved effective as relates to other individuals” (Nijakowska, 2010, p. 31).

Therefore, since students’ performance has little or nothing to do with a lack of good education, motivation, or environment, it is customary to ask ourselves about the origin of the disability.

1.2 Aetiology of dyslexia

Dyslexia is a neurological language-based learning disability that affects the brain’s neurological and verbal-linguistic processing areas, which are needed for success in reading (Kang et al., 2016 in Johnston, 2019, p. 339). It is considered one of the most common manifestations of specific learning disorders (APA, 2022, p.79). Halgreen (1950 in Lecours et al., 1998, p. 111) states that this disability affects 10% of students in Western countries. Therefore, due to its recurrence, many theories have tried to explain why a person has dyslexia and if it is just one factor or multiple that originate the disability.

Genetics are one of the many possible origins of dyslexia. The APA (2022) suggests:

Family history of reading difficulties (dyslexia) and parental literacy skills predict literacy problems or specific learning disorder in offspring, indicating the combined role of genetic and environmental factors. There is high heritability for both reading ability and reading disability in alphabetic and nonalphabetic languages, including high heritability for most manifestations of learning abilities and disabilities (e.g., heritability estimate values greater than 0.6). (p. 83)

In other words, there is a greater likelihood that someone with dyslexia will have children with dyslexia. For example, Peterson & Pennington (2012) declare:

Like all behaviourally defined disorders, the cause of dyslexia is multifactorial and is associated with multiple genes and environmental risk factors (panel 5). Dyslexia is familial and moderately heritable and has been linked to nine risk loci (DYX1–DYX9). (p. 2003)

Another source for the disability is related to the biological aspect of dyslexia. For instance, Démonet et al. (2004) claim:

In both children and adults with dyslexia, results of neuroimaging studies suggest defective activity and abnormal connectivity between regions crucial for language functions—e.g., the left fusiform gyrus for reading—and changes in brain activity associated with performance improvement after various remedial interventions. (p. 1451)

Furthermore, Outón (2004) mentions:

Otro hallazgo significativo en las autopsias de los cerebros disléxicos fue la presencia de simetría relativa en el *plano temporal* de los dos hemisferios, constatando que en el hemisferio derecho era más grande de lo habitual. En la gran mayoría de los sujetos esta estructura anatómica presenta mayor tamaño en el hemisferio izquierdo que en el derecho. (p. 36)

The difference in the size of the hemispheres, specifically in the temporal plane, indicates an abnormality in the part of the brain that is responsible for receptive language functions. Therefore, it can be seen as the origin of the handicaps of people with dyslexia.

However, not all dyslexic children have family history of dyslexia or a purely biological deficiency. That is, evidence has not been found that there is a unique cause for dyslexia in the cases registered, resulting in the possibility of having multiple factors that originate dyslexia. As Outón (2004) comments:

La naturaleza de la dislexia ha sido estudiada desde diferentes posicionamientos teóricos. Se han realizado investigaciones desde la orientación biomédica, psicométrica, conductual, cognitiva, psicodinámica..., intentando identificar los aspectos afectados en ella, las posibles causas que la explican y las intervenciones para subsanarlas. Sin embargo, los resultados de estas investigaciones no son del todo concluyentes, posiblemente por la ausencia de consenso en su definición y la complejidad que entrañan las tareas de lectura y escritura. (p. 28)

To emphasize this idea, Rivas Torres & Fernández Fernández (1994) argue:

Si se tienen en cuenta los dos tipos de problemas fundamentales que pueden condicionar su aparición, siendo éstos los neurológicos y cognitivos, así como la interrelación entre ambos, se verifica que todavía sigue siendo difícil identificar una causa única generadora de la dislexia. (p. 21)

In consequence, to understand the probable cause of dyslexia, we must observe the symptoms that appear with the acquisition of literacy by looking at both the neuropsychological and psycholinguistic aspects of them, as we will continue explaining in this chapter.

1.3 How do dyslexic children read?

The acquisition of literacy involves different processes, for example, identification, recognition, and comprehension of words. Those can be complex even for the average reader as they tend to recognise familiar words more quickly than those uncommon (Rivas Torres &

Fernández Fernández, 1994, p. 39). In the case of dyslexic children, different models try to explain the process of the acquisition of literacy of dyslexics.

1.3.1 Neuropsychological models

Some difficulties present in people with dyslexia root in neurological problems. For example, as Fiuza Asorey & Fernández Fernández (2013, p. 52) state “Los niños con dislexia evolutiva, la más frecuente, suelen tener un retraso neuroevolutivo que se traduce en un delecteo y lectoescritura tardíos, asociado con dificultades en áreas como la motriz”. For instance, Reid (2005) mentions:

There is considerable research evidence that highlights the neurological basis of dyslexia and in particular the connecting pathways of the left and right hemispheres as well as aspects relating to the cerebellum and the magnocellular visual system. These factors affect processing speed as well as visual accuracy and co-ordination. (p. 6)

Furthermore, in Peterson & Pennington (2012) study of developmental dyslexia, they describe the neurological aspects of dyslexia, as it quotes:

Because reading is a linguistic skill, we would expect it to involve the activation of brain structures used in oral-language processing and some additional structures associated with visual-object processing and establishment of visual-linguistic mappings. A large number of functional imaging studies have shown aberrant activation patterns in these regions in dyslexia. The most common findings, as described in several qualitative reviews, encompass abnormalities of a distributed left hemisphere language network. Consistent under-activations have been reported in two posterior left hemisphere regions; a temporoparietal region believed to be crucial for phonological processing and phoneme-grapheme conversion, and an occipitotemporal region, including the so-called visual word form area, which is thought to participate in whole word recognition. (p. 2001)

Despite this argument, insufficient evidence supports that dyslexia has a uniquely neuropsychological underpinning. The reason for this is that in most cases of dyslexia, other factors, such as psycholinguistics, are involved in the appearance of dyslexia.

1.3.2 Psycholinguistic models

The psycholinguistics models study the mechanisms responsible for the most literacy issue by analysing the processing of linguistic information. Within these models, the most relevant approach is that of cognitive operations. It focuses on identifying the stages of linguistic processing that are deficient and causing the reading problem and, afterwards, elaborating

programmes for re-educational treatment (Fiuza Asorey & Fernández Fernández, 2013, p. 53).

The APA (2022) declares:

Individuals with specific learning disorder typically (but not invariably) exhibit poor performance on psychological tests of cognitive processing. However, it remains unclear whether these cognitive abnormalities are the cause, correlate, or consequence of the learning difficulties. (p. 80)

One psycholinguistic model, for example, was created by Seymour and McGregor (1984 in Fiuza Asorey & Fernández Fernández, 2013, pp. 52-53). This model explains reading acquisition through three partially overlapping stages: logographic, alphabetic, and spelling and distinguishes four processors: semantic, phonologic, graphemic and orthographic. These four processors function by following four steps (Fiuza Asorey & Fernández Fernández, 2013, p. 53):

1. The *orthographic processor* facilitates access from phonology to semantics and vice versa.
2. The *graphemic processor* receives an input (the letters) as visual characters.
3. The *phonological processor* makes a representation of all phonemes.
4. The *semantic processor* creates an abstract representation of the concepts and relationships between them.

For example, if a child sees for the first time the word ‘book,’ the process of reading will be the following way: 1. to go through all the processors, the orthographic processor allows the child to identify, recognise and comprehend the word; 2. the graphemic processor enables the child to look at each grapheme that composes the words (<o> <o> <k> = ‘book’); 3. the phonological processor enables the process of recognising each sound of ‘book’ (/b/ /o/ /k/ = /bʊk/); 4. the semantic processor allow the child to create the abstract representation, that is, the meaning of the word ‘book’, that is, “a set of pages that have been fastened together inside a cover to be read or written in” (Cambridge Dictionary, n.d).

Having seen the difference between the two models, we can determine that the only way to evaluate and intervene in dyslexia is by observing the neuropsychological and psycholinguistic characteristics of the person with dyslexia so that the re-education is effective. We will further on this idea in Chapter 2.

1.4 Dyslexia through the errors

The diagnosis of dyslexia is a rather complex one. In general, we notice a learning disability by looking at the child's errors while reading or writing, for example, the omission of letters or the change of order in syllables. However, Peña-Casanova (2002) asserts:

Sin embargo, estas faltas (en lectura o escritura) no tienen nada de específico; por un lado, sería bastante difícil cometer otras, y por otro, aparecen en todos los niños en la primera fase de aprendizaje. Además, aunque tarde, suelen desaparecer poco a poco en los sujetos de más edad que, a pesar de ello, siguen teniendo grandes dificultades en alcanzar una lectura fluida y/o una expresión escrita correcta. (p. 347)

In other words, these mistakes are expected at the preliminary stages. Therefore, students with or without a disability could show errors in reading or writing, such as omitting or confusing letters. For example, a child can write 'fone' instead of 'phone' because they do not know orthographic rules.

For that reason, some scholars underline the importance of looking at the recurrence of errors. For example, Peña-Casanova (2002, p. 347) states "Estos errores no son indicativos de nada; es su persistencia en el tiempo y su carácter fluctuante lo que llama la atención y puede constituir un rasgo de especificidad." In addition, APA (2022) joins this issue by commenting:

The learning difficulties are persistent, not transitory. In children and adolescents, persistence is defined as restricted progress in learning (i.e., no evidence that the individual is catching up with classmates) for at least 6 months despite the provision of extra help at home or school. For example, difficulties learning to read single words that do not fully or rapidly remit with the provision of instruction in phonological skills or word identification strategies may indicate a specific learning disorder. (p. 79)

Since the recurrence of those "errors" is the key to diagnosing and later intervening in dyslexia, it is essential to know the most common characteristics among people with the disability. Reid (2005, pp. 5-6) suggests that the features are related to the senses, motor skills and brain connections. For example, children with dyslexia show problems associated with hearing, specifically phonological awareness. In other words, dyslexic children struggle with the correspondence of letters and sounds. Also, they show issues with their motor skills, for example, poor handwriting (Reid, 2005, p. 6). Finally, Reid (2005) suggests:

The core difficulties associated with dyslexia – reading, spelling, and writing. These tasks are usually left hemisphere skills, apart from creative writing, which can be associated with the right hemisphere. The research indicates that dyslexic children have weaknesses in the left hemisphere so therefore tasks

involving phonics accuracy, sequencing and remembering will be more challenging often more exhausting for the child dyslexia. (p. 6)

In addition, Crombie (2000) claims:

There are a number of problems associated with dyslexia that seem likely to affect the learning of languages. They include weakness in phonological processing, poor working memory, poor auditory discrimination, confusion over syntax, faulty auditory sequencing, poor self esteem, difficulties with motor skill and automaticity, poor organizational skills, slow speed of information processing, difficulties in object naming and limited attention span. (p. 114)

Nonetheless, dyslexia can be described as a hidden disability. In other words, students may hide their struggles by compensating or creating strategies to imitate their classmates, or even teachers mistake their challenges as laziness (Reid, 2005, p. 4). Consequently, as teachers, it is imperative to know the general characteristics of dyslexia so that it is easier to look for individual indicators and adequately intervene.

1.5 Difference between dyslexia in Spanish and dyslexia in English

Although dyslexia is one of the most common disabilities, depending on the person's mother tongue, the frequency of its occurrence changes. As Nijakoswka (2010) explains:

The intensity of dyslexic difficulties depends on the nature of a language and the range of skills required for reading in that language. Reliability of the letter-sound mappings is crucial: the more transparent or shallow a language, the fewer difficulties are encountered by dyslexic learning to read in it. (p. 38)

For instance, there is a higher frequency of dyslexia in English than in Italian (Démonet et al., 2004, p. 1451). In the same way, the specifics of the disability vary as well as each language presents different grammar and phonetics. The (APA, 2022) indicates:

In the English language, the observable hallmark clinical symptom of difficulties learning to read is inaccurate and slow reading of single words; in other alphabetic languages that have more direct mapping between sounds and letters (e.g., Spanish, German) and in nonalphabetic languages (e.g., Chinese, Japanese), the hallmark feature is slow but accurate reading. In English-language learners, assessment should include consideration of whether the source of reading difficulties is a limited proficiency with English or a specific learning disorder. (p. 83)

Additionally, Reid (2009) comments:

More regular orthographies may require assessments of literacy skills that test speed of reading rather than accuracy, and measures of speed of reading may be better predicted by measures of speed of processing, such as rapid naming tasks, rather than measures of phonological awareness. (p. 26)

Thus, the relevance of describing and comparing the individual characteristics of dyslexic children is vital. In other words, by looking at the specifics of each language, in our case, Spanish and English, we can find the correct approach for the objective of this paper.

1.5.1 Dyslexia in Spanish

The Spanish language is an alphabetic language meaning that each letter of the alphabet corresponds to a speech sound. As Hualde (2013) states:

En la ortografía convencional del español hay una correspondencia casi perfecta en una dirección: de la forma escrita a la pronunciación. Generalmente hay una única manera de leer una secuencia de letras dada. Esto es así con poquísimas excepciones (que mencionamos en la sección 1.3). Cualquiera que haya aprendido el valor de las letras y combinaciones de letras del alfabeto en español puede pronunciar de manera adecuada cualquier texto escrito en español sin necesidad de conocer todas las palabras o incluso sin entender lo que está leyendo. (p. 3)

Therefore, typically when we teach a child how to read and write in Spanish, the process is continuous. The child can learn the skills without issues by teaching them the alphabet and its phonetic correspondence. However, the complexity is augmented in the case of children with dyslexia due to problems with grapheme-phoneme correspondence. For example, if they are learning the word 'beso' and confuse the letter with the letter <p> or change the order of the syllables, the traditional method is not practical.

Predominantly, Spanish speakers with dyslexia struggle with reading, writing and comprehension. These skills are intricately connected; that is to say, if they do not know the correct order of the word, they cannot read it, write it, or comprehend it. Therefore, although we separate the difficulties in each skill, they are interrelated.

Regarding reading, the reading speed in dyslexic children is lower than other children of the same level. Martínez Miralles & Hernández Pallarés (2019, p. 12) claim that children with dyslexia in Primary School show a slow speed while reading if the student reads less than 35 words per minute in the first level, 60 words per minute in the second level or 85 words in third level. In addition to this, while reading, children with dyslexia have a nervous attitude, which

produce a sibilant and hesitant reading that prevents automated reading (Martínez Miralles & Hernández Pallarés, 2019, p. 12).

Furthermore, Fiuza Asorey & Fernández Fernández (2013) assert that some characteristics of children with dyslexia in Primary education are:

- Invierte letras, sílabas y/o palabras.
- Confunde el orden de las letras dentro de las palabras (barzo por brazo).
- Confunde especialmente las letras que tienen una similitud (d/b, u/n...).
- Omite letras en una palabra (árbo por árbol).
- Sustituye una palabra por otra que empieza por la misma letra (lagarto por letardo).
- Tiene dificultades para conectar letras y sonidos.
- Le cuesta pronunciar palabras, invierte o sustituye sílabas.
- Al leer rectifica, vacila, silabea y/o pierde la línea.
- Con frecuencia no suele dominar todas las correspondencias entre letras y sonidos.
- Confunde derecha e izquierda
- Escribe en espejo.
- Su coordinación motriz es pobre.
- Se dan dificultades para el aprendizaje de secuencias (días de la semana, meses del año, estaciones...).
- Le cuesta planificar su tiempo.
- Trabaja con lentitud.
- Evita leer. (p. 54)

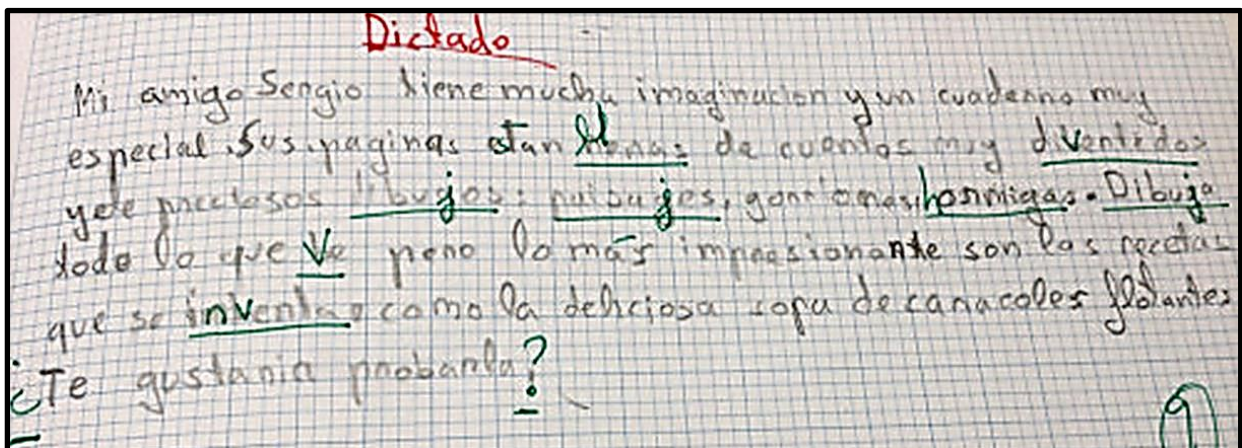


Figure 1. Example of written mistakes in children (Herrera, 2015)

For instance, in Fig.1, the student displays an apparent omission of letters such as the <s> in 'están' or the confusion between the correspondence of phoneme-grapheme as in the use of

<y> instead of <ll> as in ‘yenas’ instead of ‘llenas’; or the use of <g> instead of <j> as in ‘dibugos’ instead of ‘dibujos’.

Finally, concerning comprehension, scholars suggest that as there is confusion with the order of letters, the message could be vague as they are exhausted trying to figure out the words in the text. For example, if the sentence they are trying to read is ‘Abrí la persiana’ and they read ‘Rabí al persona’, the child lacks the connection between word and meaning as the final message of the text is missed.

In addition, as Martínez Miralles & Hernández Pallarés (2019, p. 12) note, there is an added difficulty in the dyslexic speakers of Spanish, which is reading and writing in foreign languages, which we will deepen in Chapter 3.

1.5.2 Dyslexia in English

Although it is considered an alphabetic language, the orthography of English does not correspond to the present-day pronunciation. Consequently, the learning process of reading and writing has higher adversities than in the case of Spanish. For instance, a study of alphabetic languages proved that English speakers had more difficulties acquiring phonological skills than other orthographies (Aro, 2004, p. 24). Accordingly, the author continues:

The difficulty of phonological recoding is specific to English with its complex grapheme-phoneme relations. The problem may be further aggravated by instruction methods that do not explicitly introduce children to word recognition via phonemic assembly, and possibly also the young age of the English school children. (p. 24)

Therefore, if there is already a chance of struggling while learning the skills, in the case of children with learning disabilities such as dyslexia, the complications are higher.

As Frith et al. (1998 in Spencer, 2000) point out:

Clearly, the success of phonological recoding depends on whether the word to be identified conforms to the code. In the case of irregular words, which are frequent in English, phonological recoding, if strictly applied, leads by definition to an incorrect word sound . . . Learning to read and write in a consistent orthography should not lead to such difficulties. Here, grapheme–phoneme recoding is reliable, and the assembly of phonemes results in pronunciations close to that of the target word. (p. 155)

Scholars suggest that the main struggle with children with dyslexia in English has to do with aspects like reading, writing, and spelling. Reading is a decoding process, meaning the children

try to discover the meaning of the text, whereas writing and spelling are encoding skills, i.e., putting together information.

Regarding reading, children need assistance recognising sounds, rhyming, and confusing letters and words with similar sounds, as there is a lack of phonological awareness. For example, trouble remembering combinations of letters that make up sounds such as <ph> and <th> and using them in a word, as well as mixing up ‘their’ and ‘there’ and ‘access’ and ‘assess’. (Reid, 2005, p. 9). Also, children show problems with sequences, so they mumble the words by reversing, omitting, or adding letters, for example, sequencing sounds and the letters in words in the correct order and the sequence of the alphabet (Reid, 2005, p. 9). Furthermore, they tend to be hesitant while reading as they lose their place when reading, which causes a slow reading speed, lack of reading for pleasure, or not reading at all (Reid, 2005, p. 9). Finally, pronouncing multi-syllabic words, even common ones, poor word attack skills – particularly with unknown words, and reading comprehension tends to be better than single-word reading (Reid, 2005, p. 9).

As Turner & Pughe (2003) claim:

For competence in spelling, pupils need to have a knowledge of the alphabet and of the importance of vowels and their sounds, rhyming ability, phonemic awareness, a knowledge of segmentation, clear articulation, a legible cursive script and good visual brain imagery. These are often areas of weakness for many dyslexic learners; hence the spelling difficulties that are apparent in their written work. (p. 25)

Reid (2005, pp. 9-10) describes some strains presented by children with dyslexia, such as those related to remembering spelling rules; making phonological errors in spelling, for example, <f> for <ph>; letters out of sequence; inconsistent use of some letters with similar sounds such as <s> and <z>; difficulties with word endings, for example, using <ie> for <y>; confusion or omission of vowels, and trouble with words with double consonants such as ‘commission’.

Finally, in the case of writing, as it is so interrelated with spelling, the difficulties presented in the spelling skills also affect the writing skills. Particularly with writing, children need to improve in writing style, the use of capital and small letters, slow writing speed, reluctance to write any lengthy piece, and a sometimes-unusual writing grip or sitting position (Reid, 2005, p. 10).

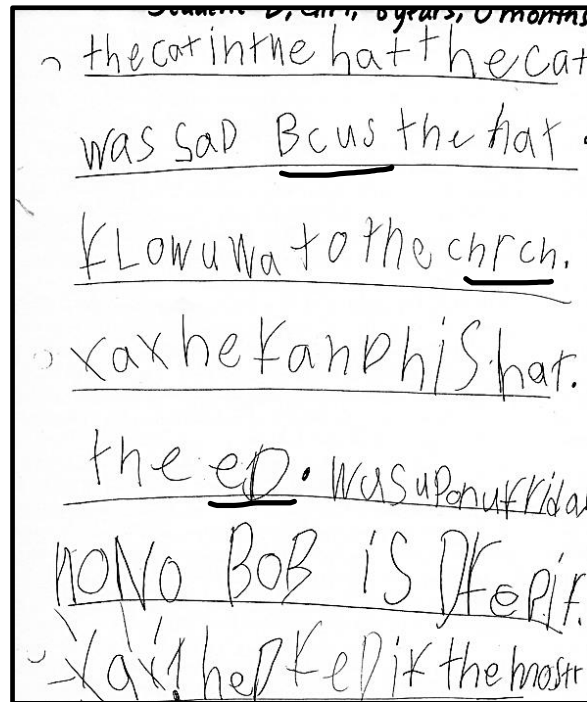


Figure 2. Example of dyslexic writing (Paske, 2020)

For example, in Fig. 2, the student shows not only poor handwriting but also mistakes related to spelling, especially omission, as <e> in 'because' or <u> in 'church' or <n> in 'end'. Also, there is an inconsistency in writing style as the student uses capital <d> instead of a lowercase letter, for example, 'saD' instead of 'sad', as well as 'anD' instead of 'and'.

Chapter 2: Intervention and re-education of dyslexia

Re-education is a term used in many fields of study that revolves around teaching new ways of learning a particular subject. Regarding dyslexia, a struggle with reading and writing, re-education consists of searching methods that permit children to acquire those skills. Rivas Torres & Fernández Fernández (1994) argue:

La razón que nos mueve a dominar el abordaje terapéutico de la dislexia como reeducación, no es otra que la de entender que el objetivo terapéutico es la educación de las funciones alteradas sobre la base de las capacidades disponibles, para que el nivel lectoescritor sea satisfactorio. Por tanto, en la reeducación de la dislexia no solo se han de tener en cuenta los trastornos que presenta el niño, sino que es necesario conocer sus posibilidades, apoyándose en las mismas y fomentándolas al máximo. (p. 73)

Peña-Casanova (2002, pp. 357-358) explains different intervention approaches: symptomatologic, psychotherapeutic, and pedagogical. However, as we are focusing on relearning literacy through the lenses of teachers, this paper focuses on pedagogical approaches as it focuses on the educational aspect of the intervention.

2.1 Legislation

Before delving into the methods used to re-educate dyslexia, it is essential to discuss the corresponding legislation in Spain and the United Kingdom concerning education for those with learning disabilities.

2.1.1 Spanish legislation

The intervention and re-education of dyslexia in Spain are governed by the LOE 2/2006 (May 4th BOE, Title II, articles 71 to 79 bis). It advocates equal opportunities and inclusion for those with learning disabilities. As Article 74 of the LOE 2/2006 describes:

La escolarización del alumnado que presenta necesidades educativas especiales se regirá por los principios de normalización e inclusión y asegurará su no discriminación y la igualdad efectiva en el acceso y la permanencia en el sistema educativo, pudiendo introducirse medidas de flexibilización de las distintas etapas educativas, cuando se considere necesario.

The protocol, as Martínez Miralles & Hernández Pallarés (2019, p. 10) explain, is divided into four phases: (i) detection of risk indicators, (ii) assessment and adoption of measures, (iii) identification through psycho-pedagogical evaluation and (iv) intervention through the individualised work plan.

In Phase I, the tutors and teachers should observe students for any risk indicators of dyslexia, such as the ones discussed in Chapter 1. If the tutor finds any indicator of dyslexia, in Phase II, the centre should adopt reinforcement measures necessary for those disabilities, for example, having more flexible groups or workshops. When the measures in Phase II do not resolve the symptoms detected, we move on to Phase III, where the counsellor will do a psychopedagogical evaluation to identify the student's specific needs. And finally, Phase IV consists of intervening through individualised work or “Plan de Trabajo Individualizado” which is, according to Martínez Miralles & Hernández Pallarés (2019, p. 24), “un documento de planificación que incluye un informe del equipo docente y las adecuaciones o adaptaciones curriculares individuales de las diferentes asignaturas.”

However, the protocol can vary depending on the Community. For example, in Galicia, the protocol for the intervention, according to Xunta de Galicia, has six stages. First, professionals delimitate the characteristics of dyslexia “teniendo en cuenta la necesidad de operativizar el mayor número de aspectos que incluyen las dificultades del aprendizaje, en aras a objetivar lo más posible su detección y replicación de resultados” (Consellería de Educación, Universidade e Formación Profesional, 2020, p. 12). Then, we should look for the symptoms that could let us identify if the child has dyslexia. Continuously, if after analysing the child, it is determined that they dyslexia, the Xunta de Galicia Protocol asks for the following:

El enfoque de intervención más apropiado incluye la instrucción directa con el alumnado que presenta dificultades específicas del aprendizaje, que será: explícita, centrada en las áreas y procesos alterados; sistemática/estructurada, de acuerdo con las fases de adquisición y desarrollo; secuencial, siguiendo un orden de dificultad creciente; acumulativa, analizando las mejores estrategias utilizadas para alcanzar los objetivos establecidos; y extensiva, prolongada en el tiempo. (p. 49)

After the proper intervention, the protocol calls for the evaluation of the curriculum that should be seen as the following (Consellería de Educación, Universidade e Formación Profesional, 2020):

La evaluación hay que entenderla como un contínuum, que forma parte de los procesos de enseñanza y de aprendizaje y que tiene como principal finalidad obtener información que permita adecuar el proceso de enseñanza al progreso real en la construcción de aprendizajes por parte de cada una de las alumnas y de los alumnos. (p. 61)

Finally, comes the most important part: monitoring the student to “verificar si las medidas de atención a la diversidad propuestas en el informe psicopedagógico para dar respuesta a las

necesidades específicas de apoyo educativo que presentan son las adecuadas.” (Consellería de Educación, Universidade e Formación Profesional, 2020, p. 64)

2.1.2 British legislation

The legislation regarding the education for children with special needs, such as dyslexia, is in Part 3 of the Children and Family Act 2014. It is deepened in the Special Educational Needs Code of Practice (Department of Education, 2014), which quotes:

This Code of Practice provides statutory guidance on duties, policies and procedures relating to Part 3 of the Children and Families Act 2014 and associated regulations and applies to England. It relates to children and young people with special educational needs (SEN) and disabled children and young people. (p. 12)

In addition, the Equality Act 2010 sets the legal obligations for those authorities and organizations involving educating children with disabilities. As the Code of Practice (Department of Education, 2014, p. 16) describes, providers “must not directly or indirectly discriminate against, harass or victimize disabled children and young people”.

Furthermore, the Code of Practice (Department for Education, 2014) ensures that disabled children receive all their needs in education and health and care. As it quotes:

Section 25 of the Children and Families Act 2014 places a duty on local authorities that should ensure integration between educational provision and training provision, health, and social care provision, where this would promote wellbeing and improve the quality of provision for disabled young people and those with SEN. (p. 38)

In regard to the schools’ attitude towards special needs students, the Code of Practice (Department for Education, 2014) explains:

The quality of teaching for pupils with SEN, and the progress made by pupils, should be a core part of the school’s performance management arrangements and its approach to professional development for all teaching and support staff. School leaders and teaching staff, including the SENCO, should identify any patterns in the identification of SEN, both within the school and in comparison with national data, and use these to reflect on and reinforce the quality of teaching. (p. 93)

In the case of identifying the child as dyslexic, the Code of Practice (Department for Education, 2014, pp. 100-101) suggests “schools should take action to remove barriers to learning and put effective special educational provision in place” in order to give the SEN children the best assessment, as it quotes “This assessment should be reviewed regularly. This will ensure that

support and intervention are matched to need, barriers to learning are identified and overcome, and that a clear picture of the interventions put in place and their effect is developed.”

2.2 Teaching approaches

As the 2001 edition of the Special Needs Code of Practice (Department for Education, 2001) claims:

The assessment process should always be fourfold. It should focus on the child’s learning characteristics, the learning environment that the school is providing for the child, the task and the teaching style. It should be recognised that some difficulties in learning may be caused or exacerbated by the school’s learning environment or adult/child relationships. This means looking carefully at such matters as classroom organisation, teaching materials, teaching style and differentiation in order to decide how these can be developed so that the child is enabled to learn effectively. (p. 44)

Consequently, it is crucial to choose the correct approach or approaches to have the best results.

As Reid (2009) comments:

It is vital that the approaches and strategies selected for assessment provide the information needed to facilitate the implementation of appropriate teaching approaches. This means that careful preparation and planning are necessary before embarking on assessment, and the questions relating to what, why, how and effect must be addressed at this planning stage and reviewed throughout the assessment. (p. 44)

In order to make that possible, Reid (2009, p. 45) suggests considering three aspects: difficulties, discrepancies and differences. That is, difficulties such as phonological awareness, written and oral language discrepancies, and the difference between learners.

Thus, we should focus on the specific needs of the child more than focusing on the label. As Reid (2009) claims:

It is important to view teaching approaches and programmes in relation to the individual and not in relation to the syndrome or label. A label can be misleading—it can be more of a general term and may not provide the descriptive and learning characteristics needed to develop appropriate approaches. Some programmes may be highly evaluated by teachers and have established a reputation as a successful multi-sensory programme, but this does not necessarily mean that the programme will be effective with all dyslexic children. Each child has to be viewed individually. If an established programme is to be used, then it is wise to check out the views of colleagues who have used this particular programme. (p. 154)

In addition, as it was mentioned in Chapter 1, there are typological differences between Spanish and English. In consequence, the assessments for dyslexia may vary depending on the

necessities of the learner (which we are going to discuss further in the paper). Despite this, multisensorial education is one approach that is effective across languages.

2.2.1 Multisensorial education

Multisensorial education is one of the most common teaching processes for dyslexia. It focuses on acquiring reading skills through different modalities. As Walker (2000) explains:

In terms of literacy, we learn through channels of looking, listening, speaking, and writing. When the normal learner reads a new word, he looks at the letters in the word, links each to the remembered sound, and pronounces the word—thus using three modalities.

When spelling, he hears the sounds in the word, repeats them to himself, produces the hand movement to give the correct shape for each letter, then checks it visually against the remembered spelling of the word. Thus, he uses all four modalities. (p. 100)

To add to this idea, the modalities that are considered in multisensory education for dyslexic children are illustrated by Rivas Torres & Fernández Fernández (1994) in the following quote:

Los procedimientos multisensoriales se apoyan, sobre todo, en un programa fonológico, que consiste en el aprendizaje de unidades básicas de sonidos, formadas, o bien por letras, o bien por combinaciones de letras. Es decir, las técnicas o procedimientos multisensoriales trabajan la relación entre habla y símbolos visuales—programa fonológico—, o también la interrelación entre modalidades visuales, auditivas y kinestésicas, para lo que el niño debe ver la escritura del grafema en una pantalla, escribirlo en el aire, escuchar su pronunciación y articularlo. (p. 77)

In other words, multisensory education works on changing the dyslexics' neural pathway into a more direct, clear and automatic representation of their written and oral skills (Walker, 2000, p. 99).

Furthermore, Rivas Torres & Fernández Fernández (1994) mention:

En las técnicas multisensoriales interviene la memoria visual, auditiva, articularia, táctil, grafomotora y rítmica. Por ello, la realización de estas actividades favorece la creación de imágenes visuales, auditivas, kinestésicas, táctiles y articularias, que, de modo conjunto, van a incidir en la globalización o unidad del proceso lectoescritor. (p. 78)

For that reason, multisensorial education has proven to be effective for dyslexic children as they make full use of their strengths while awakening and integrating their weak areas in the process (Walker, 2000, p. 100). As Shams & Seitz (2008, p. 415) add, “information entering the system through multiple processing channels helps circumvent the limited processing

capabilities of each individual channel and, thus, greater total information can be processed when spread between multiple senses”. Concerning some activities that can be done in a multisensorial approach, Peña-Casanova (2002, pp. 360-361) explains that the activities should be based on the following:

1. **Gesture support:** it is explained as “Cada fonema se acompaña de un gesto de la mano, antes de asociarlo con su grafía correspondiente.” (Peña-Casanova, 2002, p. 360) The gestures could remind the letter’s form, the pronunciation of the phoneme or the sound that they produce.
2. **Graphic resource:** the author explains that “Los ejercicios de lectura o de dictado se acompañan de un elemento gráfico que recuerda al niño la(s) característica(s) diferenciadoras; luego se elimina progresivamente la facilitación” (Peña-Casanova, 2002, p. 360) (Fig. 3) this one can be combined with gestural support.

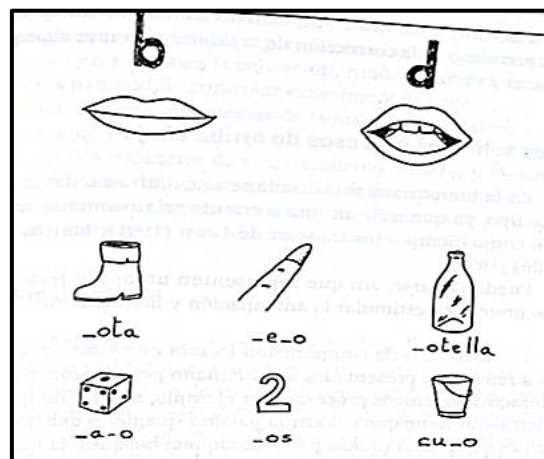


Figure 3. Self-dictation exercises and graphic support (Peña-Casanova, 2002, p. 361)

3. **Semantic association:** Peña-Casanova claims that “Cada fonema se asocia a un ruido de la naturaleza (método onomatopéyico) o a una palabra referencia que forma parte de un grupo de palabras aprendidas anteriormente de forma global (m de mamá...)” (Peña-Casanova, 2002, p. 361). (Fig.4)



Figure 4. Association of words with the letter (Outón, 2010, p. 15)

4. **Kinaesthetic and/or tactile support:** the author explains “Incluye ejercicios de recortes de letras, reconocimiento táctil de letras de madera o de papel de lija o realización en el aire de los movimientos gráficos (a veces con apoyo musical o rítmico)” (Peña-Casanova, 2002, p. 361).

2.2.2 Teaching approaches in Spanish

2.2.2.1 Psychomotor education

As discussed in Chapter 1, there is a visible difficulty among people with dyslexia related to weaknesses in the left hemisphere. According to Rivas Torres & Fernández Fernández (1994, p. 78) due to the laterality of the dyslexic brain “es preciso iniciar una serie de ejercicios, a veces preventivos, a veces de recuperación, debido a que estos aspectos pueden afectar a la lectoescritura”. Therefore, *psychomotor education* works on those difficulties instead of only focusing on acquiring literacy.

Rivas Torres & Fernández Fernández (1994, p. 78) suggest activities that stimulate muscle strengthening and motor coordination. These activities will activate the process of reading and writing, as Rivas Torres & Fernández Fernández (1994) quote:

Por medio de la planificación de actividades psicomotoras, se pretende que el sujeto tome consciencia del esquema corporal y, a partir de éste, del espacio, de la afirmación de la lateralidad, de la disociación de movimientos, que ejercite la memoria y la capacidad atención al y que se relaje. Todo ello prepara, específicamente, para los ejercicios de lectura y escritura. (p. 79)

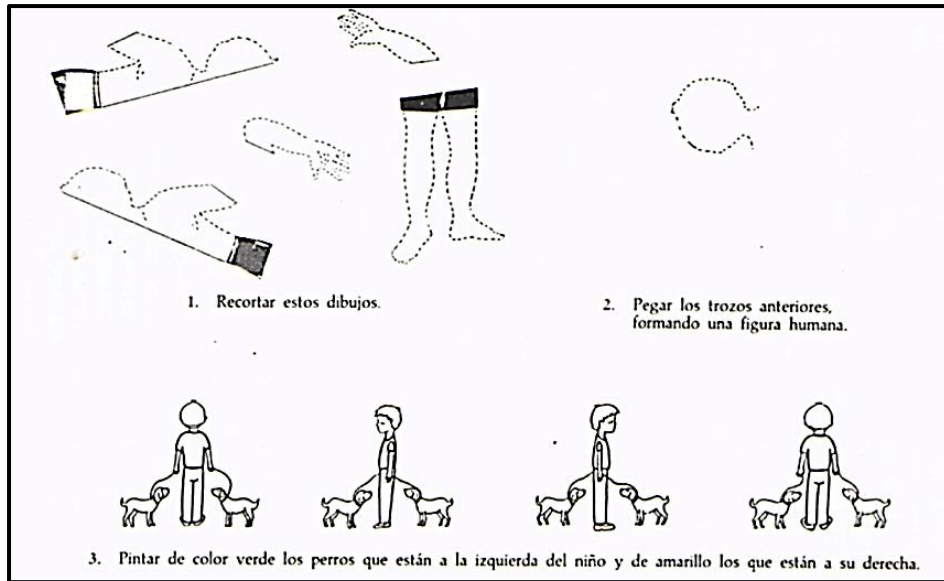


Figure 5. Sequence of activities for mastering the body schema (Rivas Torres & Fernández Fernández, 1994, p. 80)

As an example of psychomotor activities for children with dyslexia, we can see that in Fig.1, we have two activities that assist with laterality. The first activity consists of cutting out the body parts of a doll and then placing them in order, that is, putting the right arm on the right, the left leg on the left, and so on. The second one consists of painting the dog green if it is on the left position of the boy and yellow if it is on the right, while the boy changes positions.

In connection to psychomotor education, we can also comment the *perceptual motor training* which improve those cognitive problems displayed by dyslexic children. Rivas Torres & Fernández Fernández (1994, p. 81) define this method as it is based on “la potenciación de las capacidades visomotoras, las cuales son esenciales para el desarrollo cognitivo y el éxito escolar.”. It focuses on the neurological developments such as “dominio postural, lateralidad, direccionabilidad de movimientos e imagen corporal” (Rivas Torres & Fernández Fernández, 1994, p. 81)

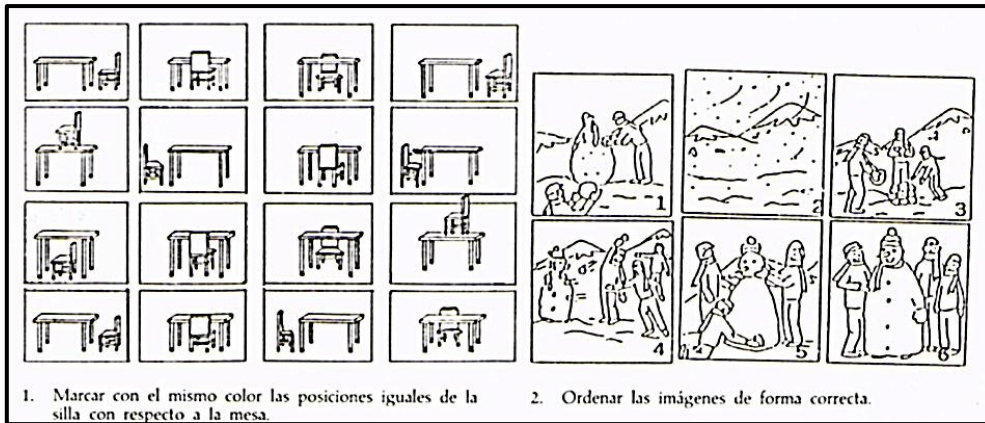


Figure 6. Examples of spatiotemporal orientation activities (Rivas Torres & Fernández Fernández, 1994, p. 82)

2.2.2.2 Psycholinguistic development

Psycholinguistic development focuses on issues related to the psycholinguistic aspects of the language, such as phonological awareness. As Rivas Torres & Fernández Fernández (1994, pp. 84-87) explain, the method works on the skills necessary to acquire literacy. For example, auditory reception (the ability to comprehend a spoken word), visual reception (the ability to comprehend or interpret symbols, such as written words), auditory association (the ability to relate spoken words), visual association (the ability to relate visual symbols), verbal expression (the ability to communicate ideas) and grammatical closure (the ability to predict linguistic events from previous experiences).

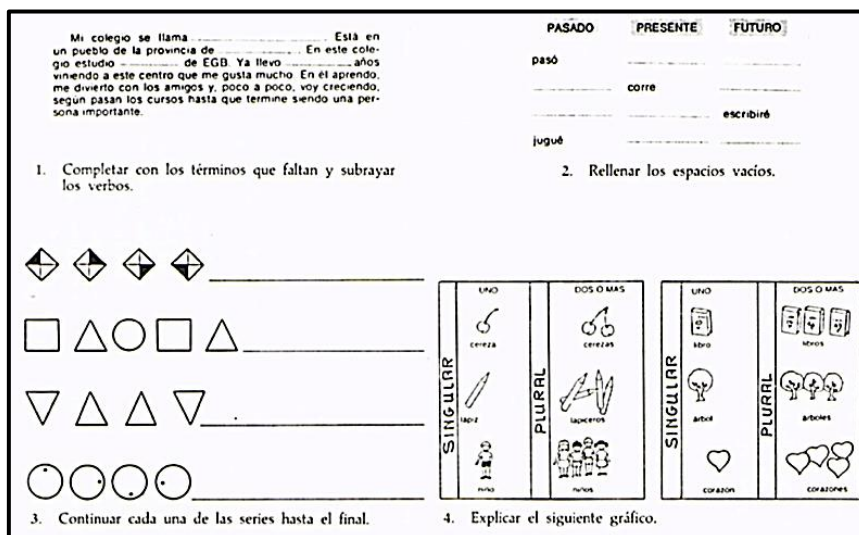


Figure 7. Psycholinguistic activities (Rivas Torres & Fernández Fernández, 1994, p. 88)

2.2.2.3 Literacy training

As we have discussed, literacy is the primary difficulty among people with dyslexia. Thus, literacy training is an approach that focuses on correct literacy learning. Rivas Torres & Fernández Fernández (1994, p. 87) describe two reading methods: analytic and synthetic. The synthetic method, as they describe, begins with the study of graphemes, combining them to create syllables to words and, finally, phrases. On the contrary, the analytic method begins with presenting a phrase to analyse a word later, then a syllable and a letter. Nonetheless, those methods depend on the needs of the child. For example, if the significant problem of the child is related to audition, the literacy training needs to focus on visual aspects as they have better skills in that modality.

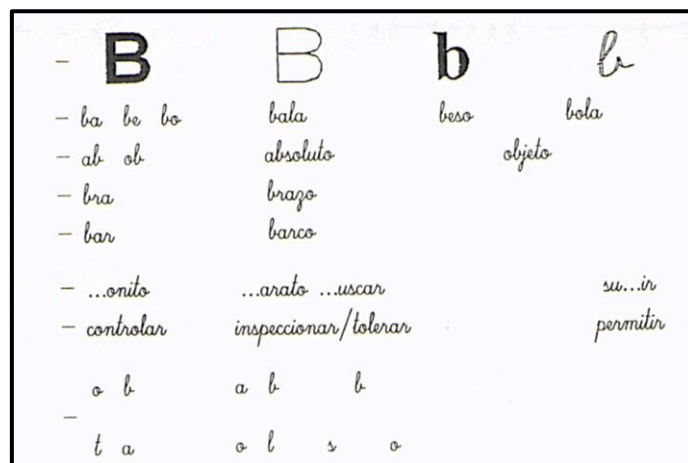


Figure 8. Activities for literacy training (Rivas Torres & Fernández Fernández, 1994, p. 91)

2.2.2.4 “Adición de fonos” program

¹The program, as the name tells, consists of adding phonemes to a word to teach the student grapheme-phoneme correspondence. As Outón (2004, p. 106) explains “Con el programa Adición de fonos se pretende que el sujeto adquiriera habilidades de segmentación, identificación y adición de fonemas.”

¹ This program was developed by Rueda et al. (1990), but all information presented in this section has been retrieved from Outón (2004).

The teaching process of this program consists of several steps using audio-visual and kinaesthetic sources, as Outón (2004) describes:

En una primera fase, la tarea que se enseña consiste en convertir una palabra en otra diferente después de añadirle un fonema. Esto es, el niño aprende a convertir *asa* en *casa* o *una* en *cuna*. El procedimiento es el siguiente: el profesor propone dos palabras, asignándole al escolar la más corta del par. A continuación, el profesor y el escolar segmentan las palabras en golpes de voz. Para realizar esta tarea dan unos golpes sobre la mesa, tantos como las sílabas tienen sus respectivas palabras. Segmentadas las palabras, el profesor ofrece al escolar un apoyo visual, dibuja unos cuadritos o coloca unas monedas sobre la mesa que representaran los golpes de voz que tiene la palabra. El escolar repite esta tarea con su palabra. Seguidamente se comparan una a una las sílabas de las palabras y se comprueban que únicamente se diferencian en un fonema. El escolar debe darse cuenta de que si este sonido se lo añade a su palabra se convertirá en la palabra que tenía el profesor. [...]

Una segunda fase de este procedimiento consiste en realizar sucesivas tareas de adición de fonos. Para ello se elaboran una lista de palabras con diferente estructura silábica, de la más sencilla a la más compleja. El sonido que el sujeto debe añadir es siempre el que se ha trabajado anteriormente (por ejemplo: Instructor: *Si yo digo ato, tú tienes que decirme...* Niño: *gato*) (pp. 106-107)

2.2.2.5 Word segmentation

Maldonado, Sebastián & Soto (1992) developed the Word segmentation program. The main goal of the programs was to develop the child's cognitive skills, mainly being able to reflect on the fundamental units of language, such as words, syllables, and phonemes (Outón, 2004, p. 109). It consists of 26 lexical awareness tasks, 27 metalinguistic reflection activities on syllables and 47 tasks for developing phonemic awareness. For example, children work with counting words, omitting words, recognizing syllables, segmenting syllables, adding phonemes, and inverting syllables.

2.2.2.6 “Lectura”

The program was created by Rueda (1995) and consists of developing the child's literacy with decodifying skills. For example, as Outón (2004) describes:

El procedimiento es el siguiente: en primer lugar, el escolar observa la palabra escrita que le presenta el instructor; luego, segmenta en sus diversas grafías; un siguiente paso consiste en asociar cada grafía a su fonema correspondiente; a continuación, el escolar ensambla los fonemas formando sílabas y, por último, ensambla las sílabas para formar la palabra. (p. 113)

In a more visual representation, the program works the following way (Outón, 2004, pp. 113-114)²:

1. Presentación de la palabra escrita	libro
2. Segmentación en grafías	l-i-b-r-o
3. Asociar cada grafía en un sonido	l /l/ i /i/ b /b/ r /r/ o /o/
4. Ensamblar los sonidos formando sílabas	li /li/ bro /bro/
5. Ensamblar las sílabas formando la palabra	libro /libro/

2.2.3 Teaching approaches in English

2.2.3.1 Alphabetic Phonics

Alphabetic Phonics can be defined as “an ungraded, multisensory curriculum, based on the Orton-Gillingham approach, that teaches the structure of the English language. This phonetic program teaches reading, handwriting, spelling, verbal and written expression, and comprehension by simultaneously engaging the visual, auditory, and kinaesthetic modalities.” (School Specialty, n.d). In addition, Reid (2009) claims:

The programme is highly structured, with daily lessons of around one hour. Lessons incorporate a variety of tasks that help to keep the child’s attention directed at the activities and prevent tedium or boredom. In this programme, reading comprehension instruction does not begin until the student has reached a minimal level of accuracy in relation to decoding skills. (p. 175)

2.2.3.2 Alpha to Omega

Hornsby et al. (1999) describe the Alpha to Omega as an approach that follows the regular pattern of phonological and language acquisition by not requiring the student to read anything that has not been taught before so everything that she or he reads is entirely comprehensible. The program follows the following steps (Hornsby et al., 1999, p. 10):

- **Stage One:** focuses on one-syllable words, except where prefixes and suffixes do not alter the stem. For example, a, be, me, he, she, etcetera. Also, this stage covers words with ‘lengthening e’, for example, cake, tune, and hope... And, finally, punctuation and grammar.

² The example quotes Rueda (1995, p. 127), and does not follow the current symbology for graphemes (<>).



Figure 9. Example for an activity in Stage One (Hornsby et al., 1999, p. 13)

As an activity using the alphabet, such as the one in Fig. 9, the teacher asks the students to say aloud the name of each letter in alphabetical order and then repeat the alphabet in reverse or groups of three letters. As the picture is not in alphabetical order, the students will have to work on their memory skills.

- **Stage Two:** covers one-syllable words but adds the suffixes and prefixes that change the stem and the spelling of long vowels—creative writing and linguistic transformations.

For example, at this stage, the teacher explains that there is a pattern for spelling long vowels. As we can see in Fig. 10, there is an explanation of the different diphthong /ai/ spellings, as it has medial <ai> and final <ay>. In other words, by visually explaining the patterns of some consonants and vowels, the student can reproduce the pattern when writing and consider the exceptions.

<i>Medially</i> 'ai'	<i>Finally</i> 'ay'	<i>Medially</i> 'ai'	<i>Finally</i> 'ay'	
p <u>ai</u> n	ma <u>y</u>	pa <u>il</u>	pra <u>y</u>	
ra <u>in</u>	dis <u>ma</u> y	ra <u>il</u>	spra <u>y</u>	
tra <u>in</u>	sa <u>y</u>	sa <u>il</u>	swa <u>y</u>	
Spa <u>in</u>	pa <u>y</u>	ta <u>il</u>	ra <u>il</u> wa <u>y</u>	
pl <u>ai</u> n	re <u>pa</u> y	ai <u>m</u>	holi <u>da</u> y	
ex <u>pl</u> ain	ba <u>y</u>	cl <u>ai</u> m	oka <u>y</u>	
st <u>ai</u> n	la <u>y</u>	ex <u>cl</u> aim		
str <u>ai</u> n	de <u>la</u> y	ai <u>r</u>		
ga <u>in</u>	ra <u>y</u>	ch <u>ai</u> r		
aga <u>in</u>	wa <u>y</u>	fa <u>ir</u>		
aga <u>in</u> st	awa <u>y</u>	un <u>fa</u> ir		
awa <u>it</u>	alwa <u>y</u> s	aff <u>ai</u> r		
ma <u>in</u>	pl <u>ai</u> y	ha <u>ir</u>		
rema <u>in</u>	dis <u>pl</u> ay	pa <u>ir</u>		
ai <u>d</u>	tra <u>y</u>	re <u>pa</u> ir		
ma <u>id</u>	be <u>tra</u> y	des <u>pa</u> ir		
pa <u>id</u>	cl <u>ai</u> y	sta <u>ir</u>		
afra <u>id</u>	ga <u>y</u>	pra <u>is</u> e		
wa <u>it</u>	ha <u>y</u>	ra <u>is</u> e		
awa <u>it</u>	sta <u>y</u>	ma <u>int</u> ain		
ODD WORDS				
Britain	straight	their	obey	two

Figure 10. Exercises for Stage Two (Hornsby et al., 1999, p. 101)

- Stage Three:** At this stage, children encounter more complex construction, such as polysyllabic words and the production of essays. For example, in Fig.11, we can see one of the topics introduced in stage three. The teacher teaches how to divide the word into syllables and stress marking by differentiating the words that follow the general pattern for syllabic division from the ones that do not. As we can see in the picture, the students are introduced to words that follow the typical pattern in English, that is, the stress in the first syllable, such as 'husband', 'modern', 'perfect', and 'over' among others; but also, words that do not follow the expected pattern that stresses in the second syllable, e.g., 'September' 'except' 'direct', and multiple stresses such as 'university'.

<i>WORDS WITH MIXED PATTERNS FOR SYLLABLE DIVISION</i>		
modern	husband	public
conduct	collect	provide
confide	industry	publish
confidence	interest	pupil
Congress	December	protest
connect	introduce	progress
consist	diamond	problem
contract	letter	produce
district	latter	propose
direct	later	protect
select	motor	police
divide	moment	polite
except	native	prevent
distant	notice	matter
duty	number	mater
dial	offer	sudden
effort	September	suffer
effect	over	supper
establish	remember	subject
economic	oblong	silver
electric	perfect	sister
entered	perfectly	twenty
November	open	university
together	triumph	family

Figure 11. Exercise for learning multisyllabic words (Hornsby et al., 1999, p. 161)

2.2.3.3 Letterland

Letterland is an approach that is used all over England and Ireland. It is a dynamic approach that focuses on the motivation of children that is available not only for professionals but also parents. As Reid (2009) describes:

Letterland encompasses a number of teaching elements based on recognized and essential components of the teaching of reading. The major elements are: language, with an emphasis on listening, speaking and communicating; phonic skills; whole-word recognition skills; sentence awareness; comprehension; reading and spelling connections; and preliminary skills in creative writing. (p. 178)

All types of materials can be found on its website (Letterland.com), such as teachers' guides, wall-charts, code cards, flashcards, workbooks, cassettes and songbooks, photocopiable material, workbooks, games and resources, software, videos, and materials specifically designed for use at home. (Reid, 2009, p. 178). For example, we can find a sample lesson that teaches how to identify and write the letter <s> (Fig.10) and how to pronounce the letter <s> (Fig. 11)

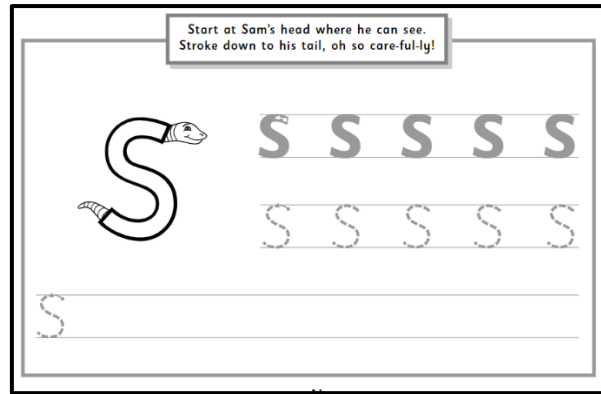


Figure 12. Activity on how to write and identify the letter <s> (Letterland, 2015, p. 6)

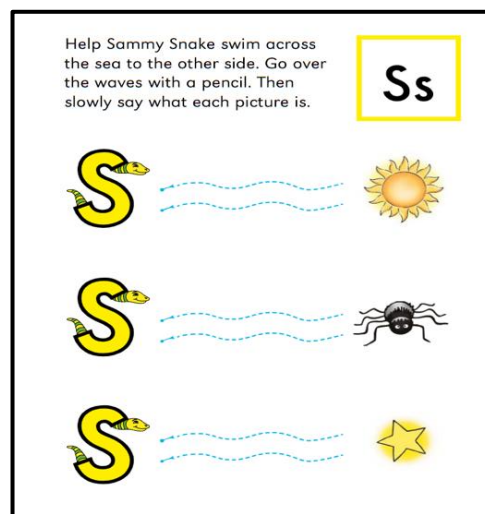


Figure 13. Activity on pronunciation of the letter <s> (Letterland, 2015, p. 7)

As Reid (2009) comments

Letterland focuses on letters and sounds, and by using pictograms encourages children to appreciate letter stages and sounds, thereby reinforcing both the shape and the sound of letters and words. Integrated within this, however, are the programmes and exercises on whole-word recognition, reading for meaning, spelling and creative writing. Spelling is not presented as a series of rules, but instead through a story approach, focusing on the Letterland characters. (p. 178)

2.2.3.4 Paired-reading

This teaching approach was created specifically for people needing training to educate children with special needs. As Reid (2009, p. 128) comments, the approach consists of two principal stages: reading together and alone. The first stage, as the name shows, revolves around the child reading aloud with the parent/teachers, whereas the second stage involves the child reading by themselves. Therefore, paired reading allows the child to gain more confidence and

comprehend the text better as they have the assistance of the parent/teacher when they do not understand a word or phrase.

The program encourages children to develop confidence through those mentioned above and the selection of reading materials. Also, it is essential for the development of the program not to have distractions so the child can focus on the absolute in the reading.

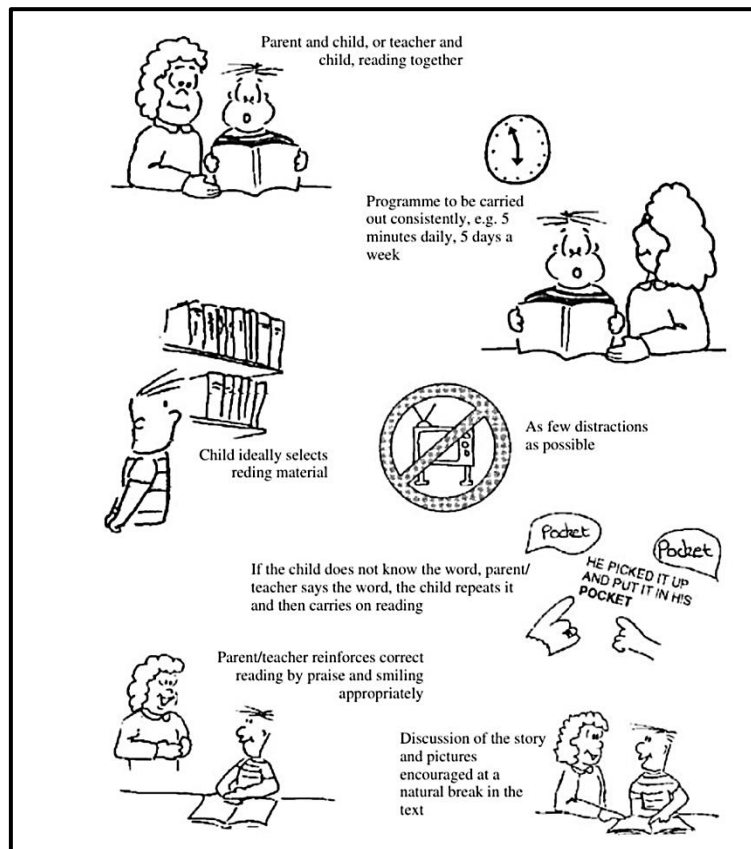


Figure 14. Example of paired-reading (Reid, 2009, p. 199)

2.2.3.5 Jolly Phonics

Jolly Phonics is a phonological approach that teaches the letter sounds in a multisensory way and includes learning irregular or 'tricky words' (Reid, 2009, p. 186). As a phonological approach, it focuses on teaching all the sounds in the English language by dividing them into seven groups which are the following (Reid, 2009, pp.186-187):

1. S a t i p n
2. c k e h r m d
3. g o u l f b
4. ai j oa ie ee or
5. z w ng v oo oo

6. y x ch sh th th
7. qu ou oi ue er ar

As Reid (2009) explains:

Each sound has an action which helps children remember the letter(s) that represent it. As a child progresses, you can point to the letters and see how quickly they can do the action and say the sound. One letter sound can be taught each day. As a child becomes more confident, the actions are no longer necessary. Children should learn each letter by its sound, not its name. (p.187)

Chapter 3: Teaching English as a second language to children with dyslexia

Teaching English as a second language, or ESL, is difficult, especially when dealing with children in the primary stages of education. Consequently, having a child with problems with their mother tongue is a more challenging job.

In the following pages, we will focus on what methods have been proven effective for this process and which can be less effective or even a failure. As well as what is the protocol and recommendations of the Spanish Educational System.

3.1 Comparison between Spanish programs and English programs

We find it necessary that before looking into the process of teaching English as a second language or ESL to children with dyslexia, we compare the approaches seen in Chapter 2. The purpose of this section is to develop a hypothesis of what approaches could be helpful in this process of teaching ESL.

Concerning motor skills, we found *psychomotor education*. Although we presented it as a Spanish approach, this method can be used for English as the exercises had to do more with movement and laterality. So, for example, if the activity deals with colours, they can be easily replaced with the term in English. Nevertheless, we found it challenging to use this approach for issues concerning ESL, such as vocabulary or grammar, as it is an approach more related to a psychological intervention than an educational one.

Furthermore, concerning phonological awareness, we found that approaches in both languages focus on guiding students into specific steps, which begin from the smallest unit, the phoneme, until they learn to read a complete sentence. Consequently, the majority of approaches accomplish the objective of acquiring phoneme-grapheme correspondence. However, it is essential to notice that there are more English than Spanish methods. As mentioned in Chapter 1, English has an obscure orthography, while Spanish has a transparent one. Thus, there is a higher need in English for methods that work on phonological awareness.

Reading and writing are fundamental for every program as it is the main goal for students with dyslexia. There are approaches like *literacy training* that focus on both reading and writing, whilst others focus mainly on the skill of reading. For example, *pair-reading*, although described in the section on English approaches, can be used for both languages as it helps to

build confidence in the dyslexic child. *Lectura*, on the other hand, can be used for Spanish but become difficult to teach English as not all words follow the same pattern; thus, not all words can be applied to the steps of the program. Similarly, we see that *Alpha-to-Omega* has activities that could mean an even bigger struggle for ESL learners; for example, if the student already shows issues with sequencing, learning the alphabet in such a confusing way (as described in Stage One in Chapter 2) could result in the child strain even more than before.

Additionally, the programs that deal with phonological awareness can be beneficial for both reading and writing because the process of learning a word in the programs is to know the pronunciation of each letter and each word and how to place them in order within a phrase, in other words, learning how to read and write.

As we have seen throughout the paper, all strategies focus on the main difficulties of dyslexic children, for instance, their phonological awareness, reading, writing, and motor skills. However, another concern while teaching a child with dyslexia is their memory skills, and, unfortunately, we did not find an approach that works specifically on memory.

3.2 Aspects to consider before teaching a dyslexic child a second language

As commented in previous chapters, dyslexia is a learning disability that affects the development of skills such as reading and writing. Thus, it can affect the acquisition of a foreign or second language. Nonetheless, as we have mentioned, determining if the difficulties are related to the disability itself or if it is a common difficulty among students of English as a second language can be challenging. As Helland (2008) explains:

Differentiating between typical and atypical second language (L2) development is a challenging task which confronts many foreign language educators. Assistance is often sparse, as the L2 teacher is usually an expert on typical L2 development but more rarely on special needs teaching, and, conversely, the special needs teacher is an expert on special needs teaching in the first language (L1) but seldom has expertise, differentiating between typical and atypical L2 development is difficult. (p. 63)

Furthermore, as mentioned in Chapter 1, we must consider the differences between Spanish and English. For instance, Anaguano Pérez et al. (2018) state:

Es necesario tener en cuenta que el inglés es una lengua con un origen totalmente diferente al español. Es una lengua que presenta una grafía diferente a su pronunciación, lo que dificulta mucho más que un alumno con dislexia escriba sin cometer faltas de *spelling*. Al igual que en español, este alumno escribirá las palabras en inglés tal y como suenan en lugar de escribir la grafía correcta.

El aprendizaje de la gramática inglesa debido a la pronunciación altera lo que había aprendido previamente: por ejemplo, la «u» se transforma en «iu» la «e» en «i», entre otras pronunciaciones. Además, algunas palabras en inglés tienen una misma sonoridad para un significado distinto, lo que puede prestarse a confusión para una persona disléxica y dificultar sus problemas de comprensión. (p.18)

Consequently, before choosing an approach, we must consider the possible challenges the children could face and act accordingly. As Pérez et al. (2017) claim:

Para aprender inglés con el hándicap de la dislexia, se hace necesario recurrir a clases con un carácter diferenciado y con la utilización de métodos adaptados de ortopedagogía que pueden resultar beneficiosos. En este sentido es conveniente también aprender a escuchar, tener mucha paciencia para no fragilizar el proceso de adquisición y la confianza del alumno. (p. 18)

Thus, if we have information that the student has symptoms of dyslexia in their mother tongue, the assessment in the second language is less complex, as the ones shown in L1, such as phonological awareness, can appear in the L2. For instance, as Nijakowska (2010, p. 37) comments, “Significantly enough, the phonological processing impairments responsible for the specific reading disability in the native language may similarly impede the acquisition of FLs.” In addition, Nijakowska (2010) adds:

It is believed that second or foreign language learning is the equivalent of the first language learning capacity and that children who develop faster in their first language also score higher on FL aptitude test. Thus, intact native skills constitute the condition for successful foreign language learning. (p. 37)

In other words, the capacities and difficulties a dyslexic student develops while learning their first language are shown in their foreign or second language acquisition. That is why some parents and teachers are reluctant to enrol their children on second language lessons. However, Crombie (2000) claims:

Withdrawing the young person from the modern language appeals to a number of parents, and often to the children themselves. However, if dyslexic students are deprived of opportunities to participate in learning a subject that their peers find useful and which may be important for their future, then we may fail to meet the needs of these students. On the other hand, if able students are compelled to persist in learning a subject in which they constantly fail, then they may become unmotivated. Emotional and behavioural problems may result, with effects on the rest of the curriculum. (p. 115)

In addition, Anaguano Pérez (2018) states:

Los profesores deben conocer la importancia de ayudar al estudiante con dislexia aprender un idioma extranjero. Aunque es un trabajo complicado, se debe comprender que los estudiantes con dislexia tienen el derecho de tener las mismas oportunidades que los estudiantes que no la presentan. El inglés es un idioma importante que se habla en muchos países y se ha convertido en una herramienta de comunicación en todo el mundo. Las personas que hablan inglés tienen más oportunidades de tener éxito en este mundo globalizado, por tal motivo, si no damos a estos estudiantes la oportunidad de aprender inglés, les estaríamos quitando su derecho a aprender una lengua extranjera que podría ser una herramienta necesaria para su futuro. (p. 69)

Therefore, the solution to this dilemma is not to withdraw the child from learning a second language but to adapt the lessons to the student's needs. For example, Crombie (2000) comments:

In order to 'help' those who find learning difficult, many modern language teachers believe that these pupils should avoid the reading and writing elements of language learning and concentrate on speaking and listening at the early stages of learning a foreign language. Reading and writing are the areas that dyslexic children in particular find difficult; therefore many teachers believe that to avoid these areas will be to avoid difficulties. Advocates of this oral/aural approach consider it to be the more natural means of communication, and suggest that concentration on speaking and listening will enable children to understand the language being taught and will enable children to communicate with others in the chosen language. (p. 116)

In addition, Hernández García et al. (2018) suggest:

Antes de empezar a adaptar y preparar actividades que ayuden al alumnado disléxico, debemos desarrollar algunas pautas y estrategias generales que nos ayudarán a crear situaciones de aprendizaje apropiadas, una correcta metodología, un estrecho vínculo escuela-casa y un desarrollo adecuado de la autoestima del alumnado. (p. 17)

For example, the student should sit close to the teacher and the board. Also, it must be structured and tidy as they need an established daily routine, and each task should be explicitly explained through pictures, drawings, and calendars, among others (Hernández García et al., 2018, p. 18).

A structured classroom environment is vital because it favours the lesson's learning without stress or confusion. That is why, in addition, children with dyslexia should have extra time for activities, and the workload should be less than the rest of the children.

Hernández García et al. (2018) emphasize on this point by explaining:

Insistimos en que las instrucciones y explicaciones del profesor deben ser claras, de acuerdo al ritmo del niño y volviendo a repetirlas las veces que sean necesarias. Además, este alumnado necesitará más tiempo para realizar la tarea y se cansará más rápidamente que los demás niños. Por ello:

- Se reducirán y fragmentarán las actividades exigidas al resto de la clase, negociando un tiempo para terminarlas. Los niños disléxicos suelen tener problemas para concentrarse. Es posible que se distraigan con otra cosa o que tengan dificultades para escuchar una clase larga o mirar un vídeo extenso.
- Los alumnos con dislexia necesitan más tiempo para copiar la información de la pizarra, tomar nota de las tareas y para hacer los deberes. El profesor puede darles las notas de la clase e instrucciones escritas previamente a la explicación.
- Se evitará que el alumno copie enunciados o información escrita así como preguntas dictadas.
- Nunca se debe asumir que el alumno tiene conocimiento previo o que ya comprende los conceptos.
- Se deberán repetir las cosas varias veces. Los niños disléxicos pueden tener problemas con la memoria a corto plazo y les puede resultar difícil recordar lo que dices. (pp. 18-19)

Furthermore, learning a new language should be a fun, progressive and natural process. For instance, Hernández García et al. (2018) suggest:

Las “clases de inglés” para los pequeños, deben ser a base de juegos, canciones, adivinanzas, cuentos y mucha diversión. De esta forma relacionan estas situaciones positivas con el idioma, las aceptan como un juego más, haciendo que los niños se involucren más en el proceso de aprendizaje. (p. 19)

In addition, information should be repeated to reinforce old abilities and connect concepts. Lessons should be given in a context where the knowledge and the stimuli are received naturally. Moreover, we have to consider a multisensorial approach, as discussed in Chapter 2 (Hernández García et al., 2018, pp. 20-21)

3.3 About methodology

As mentioned before, the methodology for dyslexic children in ESL classes should not be traditional as it could not be effective. (Hernandez García et al., 2018, p. 18)

Martínez Miralles & Hernández Palláres (2019, pp. 42-44) claim that there are two types of methods for ESL classes to dyslexic children: “métodos dispensativos” and “métodos compensativos”. On the one hand, “métodos dispensativos” aim to reduce students’ workload due to their slow processing speed and typically are access adaptations. For example, teachers will summarise the lesson previously or explain grammatical rules in both languages (Spanish and English). On the other hand, “métodos compensativos” aim to facilitate learning processes or replace them by compensating for the disadvantages that the student has due to their

disability and usually consist of technical assistance, for instance, using tools to explain the lesson such as videos, audiobooks or word games.

Hernández García et al. (2018, p. 22) on the other hand, explain two different types of methods: *Synthetic phonics* and *Whole word approach*. *Synthetic phonics* “es un método de enseñanza de la lectura que primero enseña los sonidos de las letras para después combinar estos sonidos y lograr una pronunciación completa de las palabras”, whereas the *Whole word approach* (Hernández García et al, 2018):

Ayuda a los alumnos a reconocer las palabras como unidades completas sin dividir las en sonidos o agrupaciones de letras. Se centra en el aprendizaje de la palabra como la unidad mínima de significado y, por lo tanto, el elemento base esencial de la lectura. (p.22)

However, Hernández García et al (2018, p. 22) suggest that teachers use both methods at the same time to obtain the desired results. In addition, the authors recommend:

Como recomendación, no es aconsejable enseñar el ABECEDARIO en inglés a los alumnos disléxicos, hasta que los alumnos no estén en 3o de primaria, ya que puede inducir a error. Si los alumnos se aprenden el nombre de las letras del abecedario (a=/ei/, b=/bi/, etc) no sabrán segmentar los sonidos que componen una palabra (ej. dog= /d/ /o/ /g/) si no que la deletrearán (ej. dog= /di/ /ou/ /gi/) complicando el proceso de la concienciación fonológica. (p. 23)

3.4 Techniques to work on vocabulary

Learning vocabulary is an essential part of learning English. However, as explained in Chapter 1, people with dyslexia have trouble concerning memory. Therefore, we have to remember some aspects before teaching vocabulary. For example, Hernández García et al. (2018) suggest:

- No utilizar la lengua materna para la introducción del vocabulario, sino el inglés preferentemente, pero teniendo siempre en cuenta que debemos ayudar a los alumnos disléxicos a establecer conexiones mediante el apoyo visual (pictogramas, imágenes, fotografías o gestos.)
- Si la opción anterior no es posible, apoyar el aprendizaje de vocabulario con explicaciones en la lengua materna y por escrito (Rondot-Hay 2006). De esta forma, la lengua madre se convierte en un instrumento vital para la comprensión, refuerzo y uso de reglas mnemotécnicas que facilitan la memorización y aprendizaje del vocabulario. (pp. 25-26)

One difficulty shown by students with dyslexia learning ESL is wh-questions. As showed in Fig. 15.

Your student with dyslexia says sentences like:

‘How is your best friend?’ instead of ‘Who is your best friend?’

‘Where do you get up?’ instead of ‘When do you get up?’

Sometimes she simply cannot remember which wh- word she should use at the beginning of a sentence.

Figure 15. Example of errors in vocabulary (Nijakowska et al., 2016, p. 92)

In this case, Nijakowska et al. (2016, p. 93) recommend teaching wh-questions separately rather than together to avoid confusion, as well as problematic lexical items such as personas pronouns (They/their, you/your...), verb tenses, among others. Tools such as mind maps, songs and memory games with word cards can be helpful in the lessons. For example, we can use mnemonic devices such as drawing a smiley face in the letter <o> so the student can associate the word ‘who’ with humans.



Figure 16. Mnemonics activity for wh-questions (Nijakowska, 2016, p. 93)

Nijakowska et al. (2016, pp. 98–99) add that lexical items such as words for the name of the day, name of nationality and countries and numbers can also cause trouble among ESL students with dyslexia. The reason for this is that they have similarities in the ending. For example, the name of the days all end with *-day*, so we should not teach them at the same time but in sections, e.g., the weekend: Saturday and Sunday; the first and last day of the week: Monday and Friday. Concerning numbers, since number 10, all numbers end with *-teen* or *-ty*, which can confuse. In this case, mnemonics can be helpful as *-teen* refers to ten, so 10 + 3: thirteen, not thirty. Finally, for names of nationalities and countries, Nijakowska suggests teaching them in pairs and emphasising the different endings for nationalities (*-an* vs *-ish*): English-England, Italian-Italy.

In summary, for vocabulary, scholars recommend working with few words and, if possible, associating them and not teaching more than 6 to 8 words in a lesson, using visual aids such as mind maps and doing repeat exercises.

3.5 Techniques to work on the four skills: listening, speaking, reading, and writing.

When we talk about language acquisition in Linguistics, we have the concept of the four language skills. Traditionally, these language skills have been divided into their transmission mode: oral or written, and their role in communication: receptive or productive (Hernández García et al., 2018, p. 39). Therefore, we have oral expression, written expression, listening comprehension and reading comprehension.

In connection to dyslexia, students with dyslexia show issues in three of the four skills as both receptive skills (listening and reading) tend to be problematic, as well as the productive skill of writing.

3.5.1 Techniques on listening

Listening skills are one of the primary skills students need to acquire in any language. Some difficulties we may encounter in children with dyslexia are related to memory. As Hernández García et al. (2018) declare:

La mayor parte de las personas con dislexia muestran problemas con la memoria verbal a corto plazo y experimentan dificultades significativas en el procesamiento aural [...] Además, intervienen desajustes en la memoria verbal secuencial, de modo que aparecen errores al recordar los horarios de clase, los días o los meses, simplemente.

Más obvio parece la imposibilidad de deletrear correctamente ante la dificultad de secuenciar las letras de la palabra. Elicitar una secuencia de fonemas y unirlos para formar palabras es una tarea a menudo inabarcable para ellos. (p. 41)

Thus, acquiring listening skills in a second language could be difficult as they could not retain the information. For example, a typical listening task for ESL students could be listening to a dictation or a conversation and answering questions. However, as one of the difficulties for dyslexic children is short-term memory, probably, they would not retain all the words and, consequently, fail the task.

Therefore, when developing a task for children with dyslexia, Nijakowska et al. (2016, p. 105) recommend having clear instructions and checking if the students know what to do. Also, students should feel safe in an environment where they can learn, ask questions if necessary, and have enough time to prepare for the task. Finally, tasks that require long concentration, such as dictations of words, should be avoided. Like Hernández García et al. (2018) explain:

Una escucha superior a dos, tres minutos, hará divagar a su atención en el mejor de los casos. Si nos ponemos en el lugar de nuestro alumnado disléxico, no demos más de 20-30 segundos. A partir de ahí puede ser, todo lo demás dado a escuchar, contraproducente. (p. 44)

Another issue we must consider is that we sometimes follow different construction in natural conversations. Thus, students must know that it is normal to miss some words. As Hernández García et al. (2018) explain:

Nadie habla, conversa, usando la misma estructura o par de frases una y otra vez, la comunicación se agota *per se*. Dichas locuciones naturales deben estar precedidas por dejar claro a los alumnos que no necesitan entender todo, que habrá cierta cantidad de información que pierdan o simplemente no entiendan. En gran parte, nuestro trabajo se compone de hacerles ver que progresan mejor cuando son capaces de extraer una pequeña, pero valiosa información, del seno de una muestra compleja de habla natural. Pongamos como ejemplo, elegir si subir o bajar una escalera para encontrar a cierto personaje de la grabación. Simple y efectivo. Aumentará su confianza. (p. 45)

Nevertheless, we have to remember that, despite their issues, students can accomplish the goal of acquiring listening skills in English. As Hernández García et al. (2018) comment:

En el caso específico de la dislexia, en el aprendizaje de una lengua extranjera, los problemas que nos encontraremos nos hacen recordar dos cosas; la primera es que el alumnado disléxico cuenta con una inteligencia suficiente, e incluso en algunos casos hasta mayor al promedio; la segunda es recordar que es un problema que no se presenta hasta el aprendizaje de la lectoescritura y presumiblemente no tendría problema durante el proceso de formación del lenguaje oral por lo que hay especialistas que recomiendan la inmersión de personas disléxicas en edades tempranas, tomando en cuenta el pensamiento visual que predomina en los disléxicos y analizando lo siguiente. (pp.41-42)

As an example of an activity for phonological awareness (Reading Rockets, 2004)

- Phoneme matching
 - Which words sound alike? man, sat, sip (Correct response: sat, sip)
- Phoneme isolation – Initial (first) sound:
 - What's the first sound in "sat?" (Correct response: /s/)
- Phoneme isolation – Final (last) sound:
 - What's the last sound in "sat?" (Correct response: /t/)
- Phoneme isolation – Medial (middle) sound:
 - What's the middle sound in "sat?" (Correct response: /a/)
- Phoneme blending:
 - What word do these sounds make? /h/ – /o/ – /t/ (Correct response: hot)
- Phoneme segmentation:
 - What sounds do you hear in "hot?" (Correct response: /h/ – /o/ – /t/)

- Phoneme manipulation – Initial (first) sound:
 - Say "mat" without the /m/ sound. (Correct response: at)
- Phoneme manipulation – Final (last) sound:
 - Say "mat" without the /t/ sound. (Correct response: ma)
- Phoneme manipulation – Substitution:
 - Say "pig." (Correct response: pig)
 - Now change the /p/ in "pig" to /f/. (Correct response: fig)

In addition, in Fig. 17, we can find a table with pre-listening, while-listening, and post-listening activities. *Pre-listening activities* include an introduction, e.g. talking about a topic that will appear in the listening. *While listening activities* enhance concentration and support students in understanding the overall meaning of listening, for example, listening for a specified word. Finally, *post-listening activities* permit students to reflect on what was discussed in the listening, for example, summarizing.

Actividades previas a la escucha (<i>pre-listening</i>)	Actividades mientras se escucha (<i>while listening</i>)	Actividades una vez finaliza la escucha (<i>post listening</i>)
<ul style="list-style-type: none"> • <i>Talking about pictures</i> • <i>Talking about lists</i> • <i>Making lists</i> • <i>Reading a text</i> • <i>Reading through questions</i> • <i>Labelling</i> • <i>Completing part of a chart</i> • <i>Predicting/Speculating</i> • <i>Previewing language</i> • <i>Informal talk</i> 	<ul style="list-style-type: none"> • <i>Marking items in pictures</i> • <i>Storyline picture set/Draw sketches</i> • <i>Matching pictures</i> • <i>Putting pictures in order</i> • <i>Picture drawing</i> • <i>Carrying out actions: physical response, gestures, movements...</i> • <i>Making models or any other Arts and Crafts activity</i> • <i>Following a route</i> • <i>Completing grids</i> • <i>Form/Charts completion</i> • <i>Labelling</i> • <i>Using lists</i> • <i>True/False activities</i> • <i>Multiple choice questions</i> • <i>Gap filling</i> • <i>Spotting mistakes</i> • <i>Listening for a specified word</i> • <i>Which order?</i> • <i>Draw/Write/Copy the idea/intention/word you hear</i> • <i>Same or different?</i> • <i>Odd one out</i> • <i>How many times did you hear it?</i> 	<ul style="list-style-type: none"> • <i>Form/Charts completion</i> • <i>Extending lists</i> • <i>Matching with a reading text</i> • <i>Extending notes into oral/written responses</i> • <i>Summarizing</i> • <i>Using information for problem solving and decision making activities</i> • <i>Jigsaw activities</i> • <i>Identify relationships between speakers</i> • <i>Role-play/Simulation</i> • <i>Dictation/Or gapped text instead</i> • <i>Establishing the mood/attitude/behaviour of the speakers</i>

Figure 17. Examples of activities for listening (Hernández García et al. 2018, p. 50)

Furthermore, as we deal with children, the activities should be as dynamic as possible. For instance, Starfall.com has dynamic activities for the First, Second and Third years of Primary

School, where children can practice decoding and word recognition. In Fig. 18, for example, we have an activity about Fork Tales. In this activity, we have audio for each sentence of the fork tale and enhance the part that the voice is saying in red.

Figure 18 shows two panels of a storybook page. Each panel features a colorful illustration of a red hen, a yellow duck, and a yellow chick in a field with a bag of corn labeled 'CORN'. To the right of each illustration is a list of three sentences with speaker icons. In the top panel, the text is standard. In the bottom panel, the words 'I will take it home and make muffins' in the first sentence are highlighted in red to indicate audio playback.

Figure 18. Activity on listening to Fork Tales (Starfalls, n.d. e)

3.5.2 Techniques on speaking

Speaking is fundamental in any language course and as Hernandez García et al. (2018, p. 60) note “independientemente de la presencia de dislexia u otras dificultades de aprendizaje, concentrarse en intentar hablar desde el primer momento una L2 ayudará a ganar fluidez en ese idioma.”

Concerning speaking skills, children with dyslexia do not show as many complications as in other language skills. For example, Hernández García et al. (2018) comment:

Es más fácil para los alumnos con dislexia aprender a hablar y escuchar que a leer y a escribir, y por ello es fundamental crear contextos de aprendizaje donde las demandas curriculares y de evaluación no requieran que los estudiantes adquieran un alto nivel de competencia en lectura y escritura, bloques de contenido donde el alumnado con dificultades específicas de aprendizaje en general y con dislexia en particular encuentran las mayores dificultades. (p. 60)

In speaking, confidence is key, so, it is essential to build the student's self-esteem. As Hernández et al. (2018) comment:

Otro de los grandes obstáculos para hablar una LE pueden ser que los alumnos carezcan de confianza en sí mismos y muestren ansiedad al comunicarse en esa LE. Los alumnos disléxicos a menudo carecen de confianza y autoestima. Pero tienen que estar convencidos de que sí pueden hacerlo y que pueden tener éxito. Es importante para alumnos y profesores pensar para qué se quiere aprender un idioma: muchas personas desean aprender un idioma para hablar, pero no tanto, para escribir. Y en este mundo moderno, hablamos mucho y tenemos correctores ortográficos y aplicaciones que reconocen lo que estás tratando de escribir. Así que se pueden establecer objetivos ligeramente diferentes para los estudiantes con dislexia, en términos de lo que necesitan lograr. (pp. 60-61)

There are numerous resources that teachers can use in order to practice speaking and issues like pronunciation. The use of new technologies such as videos, audiobooks, online dictionaries, among others, are extremely effective. For example, Hernández García et al. (2018) declare:

El uso de las nuevas tecnologías es un estupendo recurso. Los diccionarios en línea no solo ofrecen la traducción de las palabras en LE sino también el audio con la pronunciación de las mismas, lo que puede ayudar a los alumnos a memorizar la fonología de esas palabras y mejorar su pronunciación. (p. 61)

Another example of how new technologies can be used for teaching speaking we have Starfalls.com. The website has activities in which students can learn the pronunciation of words. For example, in Fig. 19, we have an exercise for learning short vowels. The exercise works the following way: first, the machine says the pronunciation of each letter /p/ /i/ /g/; then the machine says the entire word 'pig' /pig/; and, finally, ask students to repeat the word the same way (first each letter and then the whole word). Also, we can see in the picture is has a drawing that serves as a key for its decoding. In this case, we have a drawing of a pig. Lastly,

the program has the possibility of changing one of the phonemes so. For example, after learning the word pig, the students learn the word 'pin'.



Figure 19. Example of a speaking activity (Starfalls, n. d. a)

3.5.3 Techniques on reading

Reading is one of the most problematic skills while learning a second language for children with dyslexia. Thus, to reduce the chances of failure, we must follow certain steps before teaching reading.

First, phonological awareness is central to reading; therefore, methods such as Jolly Phonics and Letterland (see Chapter 2) can be helpful. For example, Hernandez García et al. (2018) say that the following activities can assist in improving phonological awareness:

- Cambiar el primer fonema de una palabra para formar otra nueva: hat/cat
- Reconocer qué palabras comienzan con el mismo fonema: bike/boy/baby
- Discriminar el primer o el último sonido en una letra: dog (primer sonido /d/)
- Combinar diferentes sonidos para crear una palabra (blending): cat /c/ /a/ /t/
- Romper la palabra en los sonidos que contenga (segmenting) map /m/ /a/ /p/
- Rimas en inglés. Seleccionar dos palabras que rimen: big/pig (p. 65)

Nevertheless, although useful, we should not focus only on activities that deal with grapheme-phoneme correspondence because students with learning disabilities such as dyslexia may find difficult the connection between the word and the meaning (Hernández García et al., 2018, p.

67). Thus, an activity that shows visually the word, as well as the sound and meaning, can be helpful (see Fig. 19)

For instance, Starfalls.com provides exercises for children to learn how to read. As shown in Fig. 20, students can learn topics such as the alphabet and left-to-right vowels. Each column has different exercises; for example, in the second column, students learn short vowels with stories; for instance, “Zac the Rat” teaches us the short /a/ and “Peg the Hen” the short /e/ (see Fig. 21)

Learn to Read			
	Game	Book	Skills
START 1	an at	Zac the Rat	MOVIE Alphabet
2	en et	Peg the Hen	MOVIE Left to Right
3	ig ip	The Big Hit	MOVIE Vowels
4	ot og	Mox's Shop	sh
5	ug Short Vowel	Gus the Duck	MOVIE Silent E
6	can e Long-A	Jake's Tale	wh
7	see d ink	Pete's Sheep	th
8	bjk a Sight Words	Sky Ride	ch
9	no s e Long-O	Robot and Mr. Mole	VIDEO Chunking
10	c b e Long Vowel	Dune Buggy	VIDEO Lonely Vowel
11	boat Word Sort Vowel Teams	Soap Boat	VIDEO Vowel Teams
12	car d	Car Race	
13	hor d R-Control O	My Horse Glory	
14	fer r Word Sort R-Controlled	Surfer Girl	
15	Y as Long E More Vowels	My Family	VIDEO Y as a Vowel

Figure 20. Exercises on learning how to read (Starfalls, n. d. b)



Figure 21. Story for learning short /e/ (Starfalls, n. d. c)

After dealing with phonological awareness, the second step is pre-reading exercises. *Pre-reading activities* can be useful to the student because they serve as an introduction to the topic that the reading discusses and vocabulary and grammatical structures (Hernandez García et al., 2018, p. 69). For example, brainstorming or watching videos in connection to the reading.

The third step is reading. While reading, students can perform some exercises, such as repetitive reading. Hernandez García et al. (2018) comment on this idea by saying the following:

La lectura repetida consiste en que los estudiantes lean los mismos pasajes de lectura o textos repetidamente hasta que se alcanza un nivel deseado de fluidez de lectura. Es muy importante que el profesor adapte los textos de las lecturas. En estos pasajes deberá aparecer el vocabulario trabajado en las sesiones previas. (p. 68)

Hernández García et al. (2018, p. 71) emphasize that reading out loud should be promoted as much as possible. Therefore, techniques such as *whole class reading* and *pair-reading*. For example, the method *Pair-reading* (see Chapter 2) could help immensely because, as Hernández García et al. (2018, p. 71) explain “Si el alumno comete un error, el otro alumno proporciona la palabra correcta. La pareja luego lee la oración con esa palabra al unísono y continúa leyendo.”

Lastly, the fourth step is *post-reading activities*. They include (Hernández García et al., 2018):

- Realización de resúmenes buscando extraer la información esencial.
- Realización de síntesis del texto leído utilizando palabras propias (Parafrasear).
- Realización de esquemas.
- Evaluar lo leído y opinar.
- Juegos para trabajar la comprensión lectora.
- Hablar sobre la lectura: qué les ha gustado más del texto.
- Inferir sobre el estado de ánimo del personaje principal, hacer un análisis sobre los personajes.
- Pensar en un final diferente del cuento.
- Hacer un mapa conceptual sobre el texto. (*Graphic organizers*) (p. 73)

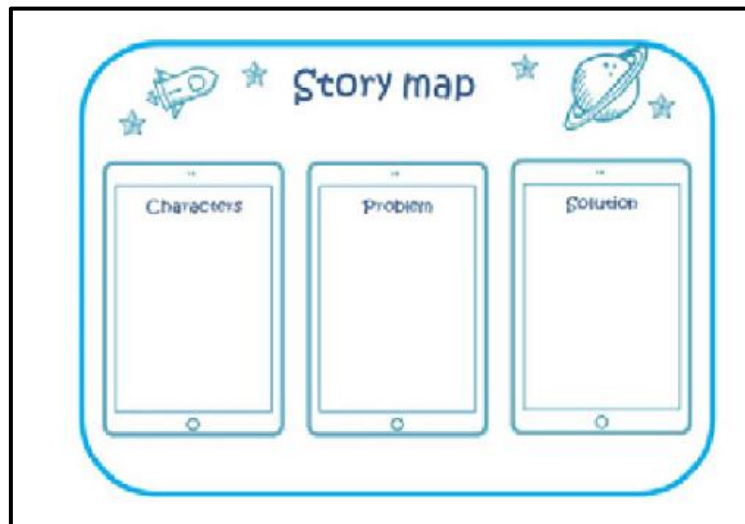


Figure 22. *Graphic organizers* (Hernández García et al., 2018, p. 73)

3.5.4 Techniques on writing

As we have explained throughout this paper, writing is one of the most challenging tasks for children with dyslexia. In writing is where many professionals detect that a child may have dyslexia. Thus, teaching writing in ESL to children with dyslexia can be challenging. We may encounter orthographic errors, slow writing speed, dysgraphia, and difficulty taking notes. So, to acquire the skill, we have to provide different resources (Hernandez García et al., 2018, p. 74).

Writing is such a difficult task for people with dyslexia in ESL that Hernandez García et al. (2018, p. 80) even suggest postponing writing until the Fourth or Fifth year of Primary School since they have not fully developed the other skills. On the other hand, if the child has some phonological awareness and knows the grammatical rules, he/she has the resources to write.

Learning how to write for a person with dyslexia has to do with their memory. The student sees a word and has to memorise the correct spelling. For example, the process of knowing how to write a word would be the following (Hernández García et al., 2018, p. 75):

1. Showing the word
2. The student tries to memorise the word.
3. The teacher covers the word.
4. The student writes the word how they remember it.
5. Check if its written correctly.
6. Repeat the exercise 10 minutes later.

The previous process should be repeated numerous times until the child knows how to spell a word correctly. It should be a mechanic and systematic process so the child can reproduce from memory.

Concerning the activities, Hernández García et al. (2018, pp. 75-79) divide them into three main categories: word level, phrase level and text level. *Word-level activities* include sequence activities, word cards, and games. Sequencing activities, for example, explains word order by distinguishing words in different colours depending on the function in the sentence. For instance, in “**E**lephants eat plants”, students know that words in red are subjects, words in green are verbs and words in blue are direct objects. These words will be placed out of order for the student to place them in order. Thus, if they see ‘bananas’, ‘Monkeys’ ‘like’, they know that the correct order is “**M**onkeys like bananas”.

After developing the writing skill at a word level, teachers should focus on teaching at a phrase level. *Phrase-level activities* should be a simple, repetitive, and gradual process. In other words, students work on structures that they already know and gradually learn new constructions. An example of this type of activity is the creation of a story. As Hernández García et al. (2018) explain:

Cada alumno escribirá una página de un cuento que crearán entre todos, para después ser leído por ellos en clase. Para ello utilizarán la estructura trabajada cambiando solamente el vocabulario específico de la unidad didáctica o formativa. Para facilitarle la tarea al alumno disléxico, tendrá el listado del vocabulario de la unidad en tarjetas individuales, por si tiene que repasar el escrito del vocabulario específico. (p. 78)

Lastly, *text-level activities* assist the child in obtaining independence while writing. Hernández García et al. (2018, pp. 78-79) explain two different activities: interactive writing and

independent writing. On the one hand, interactive writing is a guided activity where both teacher and student compose and write a text. This activity involves codifying and decodifying a text as students write and read what they have produced. For example, students can write a postcard like in Fig. 23. On the other hand, independent writing allows students to show their knowledge.



Figure 23. Interactive writing (Starfalls, n. d. d)

Conclusion

Each point developed in this work allowed us to analyse what dyslexia is and what we must focus on when teaching English as a second language. Thanks to arguments such as Peña-Casanova (2002), we realised that the errors are not what is relevant but their persistence. The persistence of the errors allows us to see the actual difficulties of the child and, later on, find the right approach for the dyslexic child. For example, if the child presents more problems differentiating right and left, but their issues related to phonological consciousness are mild, methods such as *psychomotor education* will be more effective than “adición de fonos”.

Nevertheless, as Hernández García et al. (2018) suggest, combining *phonic* and *whole-word approaches* is more effective than choosing only one. Therefore, for example, more than choosing one of the approaches described in this paper, it is better to use several simultaneously, as it will increase the chances of having a successful lesson.

In addition, we are glad to discover that within both Spanish and British legislation, teaching second languages to children with dyslexia is promoted. It is relevant because, as Crombie (2000) comments, excluding the dyslexic child from these opportunities is more prejudicial than beneficial. Thus, if the government standardises the learning of a second language in children with special needs, we accomplish equality in the classroom.

Generally, each method and technique explained seeks the child's language acquisition. Children with dyslexia are not unable to learn a second language. The slow learning speed in skills such as writing does not indicate an impossibility of learning. On the contrary, dyslexic children show fewer struggles in skills such as speaking. Therefore, creating an environment where the child feels safe to practice and use the language without pressure is essential. Particularly in teaching ESL to children with dyslexia, teachers should be emphatic on acquiring phonological awareness before moving to skills such as writing. In other words, the child needs to understand a word in its entirety before writing it. Therefore, teaching the meaning, orthography and pronunciation using strategies such as videos and games is a fundamental part of ESL classes for children with dyslexia, which leads to our following point.

Using new technologies has proven effective in any language class, but in a Special Needs class has been wonderfully helpful. It creates pleasant and fun lessons that aid children in enjoying the subject and not developing a negative attitude towards the language. In addition,

it allows the teacher to explain a topic, such as nouns, vowels, and writing letters, among others, in an interactive way. Concerning ESL teaching to dyslexic children, the new technologies support a multisensory education, proven to be the more effective approach.

In conclusion, there are numerous ways to teach a dyslexic child a language, but what is important is our ability to engage the child in the lesson to obtain the most benefits. We must recognise that teaching children with dyslexia should not be focused on what the child does wrong but on how the child can learn. Therefore, we must foresee our challenges and focus on what we can achieve. For example, visual aids, multisensory approaches, games, etcetera, could enhance opportunities for dyslexic children to learn English as a second language.

Our wish for the future is that the research of dyslexia continues as it supports the elimination of the stigma towards it and serves as an opportunity to understand the disability better. Furthermore, we recognise that just because people with dyslexia struggle to map letters does not mean they cannot learn languages. Ultimately, this paper has been a chance to revalue dyslexia leaving with the belief that not all learners are the same, and we should create curriculums that portray that.

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