

SUPPORTING DYSLEXIC STUDENTS IN FOREIGN LANGUAGE EDUCATION: A STUDY ON CHALLENGES AND EFFECTIVE TEACHING PRACTICES

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ABSTRACT:

This paper is focused on examining the specific challenges faced by dyslexic students in foreign language (FL) classrooms and evaluates the effectiveness of various instructional strategies designed to support these learners. Through a literature review and analysis, key issues such as phonological processing difficulties, reading comprehension struggles, and writing challenges are identified. The role of teachers is highlighted as critical in mitigating these difficulties through the implementation of multisensory teaching methods, explicit phonics instruction, and tailored classroom adaptations. The study emphasises the importance of teacher training and positive attitudes towards dyslexic students, advocating for professional development programs that equip educators with the necessary skills and knowledge. The findings suggest that fostering collaborative efforts among teachers, specialists, and families is essential for creating an inclusive educational environment.

Key words: Dyslexia, Foreign Language Learning, Multisensory teaching, Teacher training, Inclusive education.

LABURPENA:

Lan honek atzerriko hizkuntzako (FL) ikasgeletan dislexiadun ikasleek izaten dituzten erronka zehatzak aztertzea du ardatz, eta ikasle hauei laguntzeko diseinatutako hainbat irakaskuntza-estrategien eraginkortasuna ebaluatzen du. Literaturaren berrikuspen eta analisi sakon baten bidez, funtsezko gaiak identifikatzen dira, hala nola, prozesamendu fonologikoaren zailtasunak, irakurketa ulermenean arazoak eta idazketa erronkak. Irakasleen eginkizuna funtsezkotzat jotzen da zailtasun horiek arintzeko, irakaskuntza multisentsorialaren, fonetika argiaren irakaskuntzaren eta ikasgeletako egokitzapenen bidez. Ikerketak irakasleen prestakuntzaren eta dislexiadun ikasleekiko jarrera positiboaren garrantzia azpimarratzen du, hezitzaileak beharrezko trebetasun eta ezagutzaz hornitzen dituzten prestakuntza-programen alde eginez. Emaitzek irakasleen, espezialisten eta familien arteko lankidetzaren ahaleginak sustatzea ezinbestekoa dela iradokitzen dute, hezkuntza-ingurune inklusiboa sortzeko.

Hitz gakoak: Dislexia, Atzerriko Hizkuntzaren Ikaskuntza, Irakaskuntza Multisentsoriala, Irakasleen Prestakuntza, Hezkuntza Inklusiboa.

RESUMEN:

Este trabajo se centra en examinar los desafíos específicos que enfrentan los estudiantes disléxicos en las aulas de idiomas extranjeros (FL) y evalúa la efectividad de varias estrategias de instrucción diseñadas para apoyar a estos estudiantes. A través de una revisión exhaustiva de la literatura y su análisis, se identifican cuestiones clave como las dificultades en el procesamiento fonológico, los problemas de comprensión lectora y los desafíos en la escritura. Se destaca el papel de los docentes como crítico para mitigar estas dificultades mediante la implementación de métodos de enseñanza multisensoriales, instrucción explícita de fonética y adaptaciones específicas en el aula. El estudio enfatiza la importancia de la formación docente y las actitudes positivas hacia los estudiantes disléxicos, abogando por programas de desarrollo profesional que equipen a los educadores con las habilidades y conocimientos necesarios. Los hallazgos sugieren que fomentar esfuerzos colaborativos entre docentes, especialistas y familias es esencial para crear un entorno educativo inclusivo.

Palabras clave: Dislexia, Aprendizaje de Idiomas Extranjeros, Enseñanza Multisensorial, Formación de Docentes, Educación Inclusiva.

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INTRODUCTION

Learning a foreign language can be a challenging yet rewarding experience for students. However, for those with dyslexia, this process can present significant obstacles. Dyslexia, a specific learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling, can severely impact an individual's ability to learn a new language. This study aims to explore the unique challenges faced by dyslexic students in foreign language (FL) classrooms and evaluate the effectiveness of various instructional strategies designed to support these learners.

The prevalence of dyslexia in the general population underlines the importance of addressing this issue within educational settings. The impact of dyslexia becomes more pronounced in foreign language learning, where additional cognitive and linguistic demands are placed on students. Consequently, dyslexic students frequently encounter additional challenges in foreign language classrooms, including diminished motivation, lower self-esteem, and heightened anxiety. Primary education is a critical stage in a child's development, and early intervention for dyslexic students is essential for long-term academic success.

The choice of the topic aligns with the focus on inclusive education, ensuring that all students, including those with learning differences, have equal opportunities to succeed. Understanding and addressing this difficulty in the foreign language classroom can have broader implications for the overall educational system, contributing to the development of inclusive teaching practices. In alignment with the United Nations' fourth Sustainable Development Goal, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (United Nations, 2015), this study explores strategies to support dyslexic students in foreign language classrooms. This goal claims the importance of providing tailored educational interventions to meet the diverse needs of all learners.

In addressing these issues, this dissertation provides a comprehensive analysis of effective support strategies and interventions. It discusses the benefits of teacher training and collaboration, the implementation of adaptive teaching methodologies, and the use of specialised materials and assessment techniques. By presenting evidence-based practices

and highlighting successful case studies, this research aims to offer practical recommendations for educators and policymakers to enhance the learning experiences of dyslexic students in foreign language education. For the researcher, exploring this topic offers an opportunity for personal and professional development, fostering a deeper understanding of neurodiversity in education and the practical application of research findings in real-world settings.

1. THEORETICAL BACKGROUND

1.1. Introduction to Dyslexia and Reading development

The importance of understanding the evolution of the term dyslexia in the educational context lies in the need to have an updated and precise approach to this learning disorder. Over time, the conceptualization of dyslexia has evolved, moving from more negative definitions to more neurobiological and specific approaches. By understanding this evolution, educators can stay up-to-date with the latest research and approaches in the field of dyslexia, allowing them to more effectively identify students who may have this disorder and provide them with appropriate intervention. Furthermore, understanding the evolution of the term dyslexia helps to banish stigmas and prejudices associated with this disorder, promoting a more inclusive and comprehensive educational environment for dyslexic students (Goswami, 2020; Gialluisi et al., 2021; Norton et al., 2015).

It is important to understand the meaning of the term *dyslexia* before proceeding further. The authors' perspectives on dyslexia present a multifaceted understanding of this condition, including its cognitive, linguistic, and educational dimensions, so if we observe definitions of this disorder, we can see a clear evolution of the concept. Dyslexia was defined as a developmental disorder that affects written language and manifests itself in severe reading and writing impairments that appear independently of other causes: intellectual, cultural, or emotional. (Thomson, 1984). Ballesteros and Rascón (2019) characterise dyslexia as a neurobiological condition that hinders the identification and learning of phonemes, syllables, and words, leading to difficulties in vocabulary acquisition and reading comprehension.

Building upon this neurological perspective, Csizér et al. (2010) describe dyslexia as a complex neurological condition with constitutional origins, affecting multiple areas of learning and functioning. Likewise, Redie (2015) underscores the neurobiological origin of dyslexia, particularly affecting word recognition, decoding, and spelling skills. They both highlight dyslexia's specific difficulties in reading, spelling and written language, framing it as a condition deeply based on neurological differences.

As we can see, the definition that some authors established regarding the concept of dyslexia had a negative connotation. Gradually, it has evolved, and one of the definitions recently adopted by the International Dyslexia Association (IDA) (2002), describes dyslexia as "a specific learning difficulty of neurological origin. It is characterised by difficulties in the accurate and fluent recognition of words, and by spelling and decoding problems. These difficulties come from a deficit in the phonological component of language, that is unexpected in relation to other cognitive abilities that develop normally, and classroom reading instruction is appropriate"¹ (IDA, 2002). This definition aligns with the World Federation of Neurology's perspective, as cited by Olmedo Cruz Micán et al. (2021), which defines dyslexia as a disorder manifesting learning difficulties in reading despite appropriate intellectual levels and without audiovisual drawbacks.

However, Alvarez-Cañizo et al. (2023) and Lemperou et al. (2011) offer a more holistic perspective by reframing dyslexia as a learning difference rather than a deficiency. They acknowledge dyslexia's challenges in acquiring fluent reading and writing skills but also recognize the strengths and unique abilities of dyslexic individuals. This change in framing from deficit to difference highlights the need to adopt a strengths-based approach to dyslexia, leveraging individuals' strengths while addressing their challenges. This perspective not only promotes a more empowering narrative but also informs more effective intervention strategies that take advantage of dyslexic individuals' strengths.

Nijakowska (2014) expands the discussion by exploring dyslexia's impact on foreign language learning. By highlighting how dyslexia affects literacy skills not only in one's first language but also in acquiring additional languages, Nijakowska (2014) emphasises the wide and general implications of dyslexia across linguistic domains. This perspective underlines the importance of considering dyslexia within the context of language learning and bilingualism. It suggests that educators should be aware of how dyslexia may affect students' language learning experiences and provide appropriate support to accommodate their needs effectively.

From an educational point of view, these perspectives offer valuable insights into designing inclusive instructional practices and support strategies for dyslexic individuals.

¹ Retrieved from <https://dyslexiaida.org/>

Specialised training for teachers, measured instructional approaches and accommodations that can help create supportive learning environments that meet the diverse needs of dyslexic learners. By recognizing dyslexia as a multifaceted phenomenon encompassing both challenges and strengths, these perspectives contribute to a more nuanced understanding of dyslexia to create supportive learning environments for affected individuals.

Recent advancements in neuroscience have shed light on the complex neural processes determining dyslexia, offering valuable insights into its aetiology and manifestation. Functional neuroimaging studies have revealed differences in brain activation patterns between individuals with and without dyslexia during reading tasks. In typically developing readers (non dyslexic), reading engages multiple brain regions, including the temporal lobe for phonological processing, the occipital lobe for visual word recognition, and the frontal lobe for phonological-to-orthographic mapping (Norton et al., 2015). In contrast, individuals with dyslexia often exhibit atypical patterns of brain activation, characterised by increased frontal lobe activity and reduced activation in the parietal and occipital lobes (Norton et al., 2015).

Importantly, it is crucial for educators to recognize that learners may also face additional challenges. As Purkayashta et al. (2012) emphasise, understanding the individual needs of each learner is paramount for effective teaching. Dyslexia does not correlate with intelligence; individuals with dyslexia demonstrate diverse cognitive strengths and strategies to compensate for reading difficulties (Yang et al., 2022). This underscores the need for educators to recognize dyslexia as part of the broader spectrum of neurodiversity present in classrooms, where it may co-occur with other specific learning difficulties such as Attention Deficit Hyperactivity Disorder (ADHD), dyscalculia, dyspraxia, and developmental language disorder (Purkayastha et al., 2012).

1.2. Importance of Early Detection

Early detection and intervention are crucial in addressing dyslexia and minimising its negative effects on learning outcomes. Redie (2015) highlights that difficulties related to oral language are often prominent in early childhood education, while difficulties related to reading, writing, and mathematics are more commonly detected in primary education.

Detecting dyslexia early and providing specific educational support can help mitigate the challenges associated with this learning difficulty, enabling the implementation of prevention programs. Redie (2015) emphasises that specific learning difficulties (SLDs) can be identified early, reducing their negative effects, avoiding associated factors, and facilitating the development of prevention programs.

Early detection and intervention play a critical role in supporting dyslexic students and fostering their academic success. By identifying dyslexia early and providing targeted support, educators can empower students to overcome challenges, develop essential literacy skills, and thrive in their educational journey.

Genetic research has underscored the hereditary component of dyslexia, as evidenced by its recurrence within families. Ongoing investigations aim to explain in detail the specific genes involved in dyslexia and their impact on brain structure and function (Gialluisi et al., 2021). This genetic predisposition contributes to the persistent nature of dyslexia, for which there is currently no cure.

Recent epidemiological studies have revealed a higher prevalence of dyslexia in boys compared to girls, although the underlying reasons for this remain unclear (Yang et al., 2022). Moreover, dyslexia manifests heterogeneously, with individuals experiencing varying degrees and areas of difficulty. Schneider (2012) emphasises the unique cognitive profiles of individuals with dyslexia, highlighting the diverse nature of the challenges they face. Consequently, personalised interventions tailored to individual needs are crucial in supporting dyslexic students.

Furthermore, research has demonstrated that phonological weaknesses associated with dyslexia are common across different languages, indicating the universal nature of developmental dyslexia (Goswami et al., 2010). This cross-cultural consistency suggests fundamental similarities in the underlying cognitive processes involved in dyslexia across linguistic contexts.

1.3. Barriers and Challenges to Learning for Students with Dyslexia

While individuals with dyslexia possess the capacity to learn, they often encounter barriers that impede their educational progress. Teachers play a crucial role in helping

students overcome these barriers by implementing effective strategies and fostering inclusive learning environments.

Barriers to learning for students with dyslexia extend beyond their inherent difficulties in reading and language processing. They encompass attitudinal, methodological, organisational, and social factors that can interrupt academic achievement and well-being (UNESCO, 2009). Attitudinal barriers arise when dyslexic students are stigmatised or marginalised, leading to their exclusion from mainstream educational settings and relegation to special needs programs. Methodological barriers stem from rigid curricula and instructional methods that fail to accommodate diverse learning styles, hindering the academic progress of dyslexic students (UNESCO, 2009).

Addressing attitudinal and methodological barriers within the classroom is paramount to fostering a supportive and inclusive learning environment for all students, including those with dyslexia. Low-achieving students, such as those with dyslexia, require teaching methods that cater to their unique learning needs and styles (Sparks, 2006).

1.3.1. Motivation and behaviour

Csizér et al. (2010) highlighted the significant impact of attitudes on language learning behaviour, emphasising that positive attitudes are closely linked to increased motivation and effort in language learning activities. Conversely, negative attitudes can lead to a lack of effort and persistence in reaching language learning goals. It is important to highlight the importance of fostering positive attitudes towards language learning to enhance motivation and engagement among students.

However, students with dyslexia often face challenges in language learning that can contribute to negative self-concepts and attitudes towards the learning process. Rohmer et al. (2022) highlight the crucial role of self-judgement of competence in academic achievement for students with dyslexia. Internalising negative stereotypes of low competence can lead to lower self-esteem and a perception of being less valuable than their peers, ultimately impacting school performance.

The motivation and attitudes of dyslexic language learners are particularly sensitive to external influences from the instructional setting. Teachers' behaviour, instructional

methods, and attitudes towards dyslexia play a significant role in shaping students' attitude and enthusiasm towards the foreign language they are studying. Positive teacher support and appropriate instructional strategies are crucial for motivating dyslexic students in their language learning journey (Csizér et al., 2010).

Therefore, efforts to support dyslexic students in language learning should focus on fostering positive attitudes, enhancing self-esteem, and providing appropriate support and encouragement to promote their motivation and engagement in the learning process. By addressing these factors, educators can help dyslexic students overcome challenges and achieve success in language learning.

1.3.2. Emotional support - Inclusion

Inclusion plays a crucial role in ensuring that all students, including those with dyslexia, have the opportunity to participate and succeed in the educational system. Redie (2015) emphasises the importance of promoting inclusive educational practices to support the academic development of students with dyslexia and to foster equality within the educational system.

Similarly, Dislegi (2023) discusses the application of Universal Design for Learning (UDL) principles in education, which aim to maximise inclusion and provide opportunities for all students to succeed. UDL advocates for removing barriers to learning by employing a variety of teaching methods that cater to diverse learning styles and needs. The UDL framework is based on three main principles:

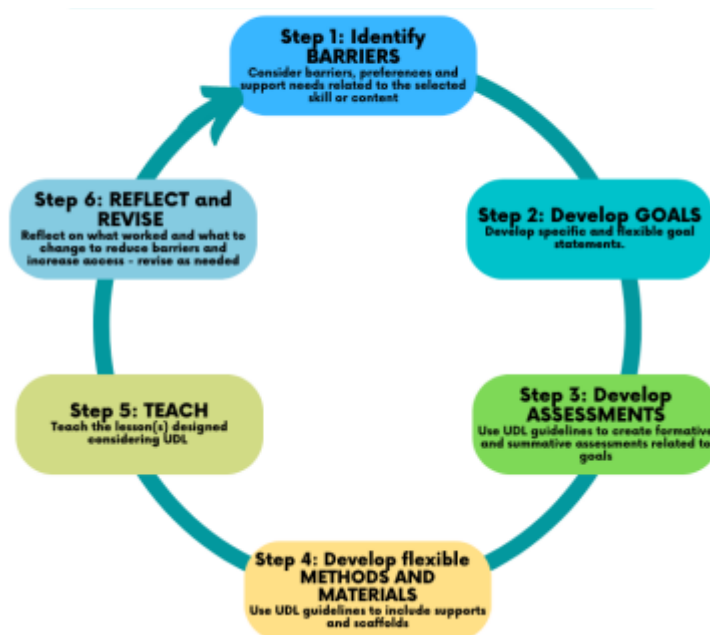
1. Representation: Offering multiple ways of presenting information, such as text, audio, video, and hands-on materials, which allows students to access content in a manner that suits their learning preferences.
2. Action and expression: Flexibility in how students interact and demonstrate their knowledge is essential. By offering various options for physical action, expression, and communication, students can develop strategies to effectively express their understanding and skills.

3. **Engagement:** Recognizing that learners differ in their motivations and interests, UDL recommends offering different opportunities for recruiting interest, sustaining effort, and promoting self-regulation, thus fostering purposeful and motivated learning experiences.

Additionally, Torres and Rao (2020) outline the UDL Design Cycle, which provides a structured approach for implementing UDL principles in instructional design. This cycle involves several steps, including identifying goals and objectives, selecting appropriate instructional methods and materials, and evaluating the effectiveness of interventions. By following this cyclical process, educators can continually refine their practices to better meet the diverse needs of all learners, including those with dyslexia.

Figure 1.

Universal Design for Learning (Torres & Rao, 2020)



In summary, promoting inclusion through UDL principles and practices is essential for creating equitable learning environments where all students, regardless of their learning differences, can thrive academically and reach their full potential. By embracing diversity and implementing inclusive strategies, educators can ensure that every student receives the support and resources they need to succeed in their educational journey.

1.4. Language acquisition and Phonological awareness

Language acquisition is a multifaceted process involving the integration of auditory, visual, and motor information. According to Dislegi (2023), children progress through several distinct stages in their linguistic development. Initially, infants detect stressed syllables in words and sentences, a process often facilitated by parental exaggeration of language rhythm during interactions, such as singing lullabies or nursery rhymes (Dislegi, 2023). Subsequently, children learn to separate syllables, detect onset rime (linguistic onset and rime in syllables), and identify individual phonemes, which are the smallest units of sound that can alter word meaning.

This developmental hierarchy reflects the concept of phonological awareness, which encompasses various levels of sensitivity to the sounds of language (Goswami, 2020). Remarkably, children with dyslexia exhibit impairments across these stages of linguistic development, leading to difficulties in phonological processing (Dislegi, 2023). Such difficulties manifest as mispronunciations, word confusion, and delays in achieving clear speech.

Furthermore, the challenges associated with dyslexia become particularly pronounced during the transition to reading age. Learning to read requires the ability to analyse sound patterns in words and associate them with corresponding written symbols (Norton et al., 2015). This task becomes arduous for individuals with dyslexia, as their impaired phonological awareness slows down efficient processing of sounds.

Reading proficiency depends on a combination of linguistic, visual, cognitive, and attentional abilities (Norton et al., 2015). Pre-literacy skills such as letter knowledge, rapid automatized naming (RAN), and phonological awareness are crucial for successful reading acquisition (Zugarramurdi et al., 2022). Dyslexia disrupts these foundational skills, complicating the reading process and impeding academic progress.

1.4.1. Addressing Dyslexia in Foreign Language Teaching

Dyslexic students encounter numerous challenges when learning a foreign language, primarily resulting from difficulties in phonological awareness, reading and writing, memory and processing speed, organisational skills, and self-esteem and motivation. These

challenges can significantly impede their ability to decode words, understand grammar, and retain vocabulary, making the learning process confusing and overwhelming for them (Nijakowska, 2014).

Specifically, dyslexic students may struggle with recognizing and manipulating the sounds of a foreign language, leading to difficulties in pronunciation and decoding words accurately. Moreover, dyslexia can impact reading fluency, comprehension, and spelling in both the native and foreign languages, further hindering their ability to understand written texts and express ideas coherently. Memory and processing speed issues may also affect their capacity to retain vocabulary and comprehend complex sentence structures (Nijakowska, 2014).

Furthermore, dyslexic students may face obstacles due to the inherent complexity of the English language, characterised by its opaque pronunciation, numerous exceptions to spelling and grammar rules, and abundance of homophones, homographs, and homonyms (Dislegi, 2023). Weaknesses in phonological processing skills, working memory, and word-finding abilities worsen the challenges faced by dyslexic students when learning English as a foreign language (Ballesteros & Rascón, 2019; Dislegi, 2023).

Despite these challenges, it is essential to recognize that dyslexic students can learn English with appropriate support and accommodations. By implementing targeted strategies, using suitable methodology and materials, and providing ongoing support both in the classroom and at home, dyslexic students can overcome these obstacles and achieve proficiency in English (Dislegi, 2023). Moreover, teachers play a crucial role in facilitating the language learning process for dyslexic students by understanding their specific needs and providing them with the necessary tools and support to succeed (Lemperou et al., 2011; Redie, 2015).

1.5. Support and strategies to overcome education difficulties

1.5.1. Teacher Training and Collaboration

Teacher training is crucial in supporting dyslexic students in their language learning journey. Lemperou et al. (2011) emphasise the importance of providing EFL (English as a Foreign Language) teachers with specialised training through systematic and well-organised

in-service training (INSET) courses. These courses should focus on enhancing teachers' understanding of dyslexia, its symptoms, and the challenges dyslexic learners face in EFL classrooms. Additionally, teachers need to be trained in updated methods and approaches tailored to meet the needs of dyslexic students. Such training enables teachers to implement necessary adjustments and accommodations in the language classroom, thereby ensuring the success of dyslexic students in learning English as a foreign language within mainstream educational settings.

Continuous education and professional development are also essential components of teacher training. Redie (2015) suggests that educators should participate in ongoing training programs to acquire effective pedagogical tools and strategies for supporting students with dyslexia and other specific learning difficulties. By staying informed about the latest research and best practices in dyslexia education, teachers can continuously improve their instructional approaches and better meet the diverse needs of their students.

Furthermore, collaboration among professionals is essential in providing comprehensive support for dyslexic students. Redie (2015) underlines the importance of fostering collaboration and communication among teachers, educational counsellors, speech therapists, and other professionals involved in supporting dyslexic students to ensure coordinated strategies and actions to address their needs effectively.

Moreover, establishing collaborative partnerships with families is vital in promoting the educational success and well-being of dyslexic students. Engaging families in the educational process, providing them with guidance and support, and maintaining open communication channels can facilitate a holistic approach to supporting dyslexic students both at home and in the classroom.

1.5.2. Strategies

1.5.2.1. Adaptations

Adaptations in teaching methodologies and materials are essential to support students with dyslexia in their language learning journey. Olmedo Cruz Micán et al. (2021) emphasise the importance of adapting the curriculum to meet the needs of dyslexic students, particularly in foreign language learning. They suggest reducing vocabulary,

structuring grammar clearly, and adapting texts to students' reading levels to create a more accessible learning environment.

Furthermore, Fombella & Solís (2020) stress the significance of adapting teaching methods to create an inclusive environment that addresses the individual needs of dyslexic students. This can include employing multisensory strategies, simplifying texts, and incorporating visual resources to facilitate language learning effectively.

Redie (2015) highlights the necessity of modifying teaching methodologies and assessment systems to accommodate dyslexic students. Providing alternative assessment methods, such as oral exams or non-reading-based evaluations, can mitigate the challenges faced by dyslexic students and ensure equitable opportunities for learning and assessment.

Additionally, Ballesteros & Rascón (2019) recommend using visual tools, cooperative work, structured sequencing, and exaggerated pronunciation to support dyslexic students in language learning. They also advocate for the use of graphic organisers, computer-based assignments, and adapted assessments to address the specific difficulties of dyslexic students.

Moreover, Kormos and Smith (2012) emphasise the importance of presenting material in a carefully structured manner at a pace that allows dyslexic students to consolidate their learning effectively. They suggest organising lessons and courses logically and cumulatively, with each new concept building upon previous knowledge, to facilitate optimal learning outcomes for dyslexic students.

1.5.2.2. Methodology

The methodologies and approaches proposed by Ballesteros and Rascón (2019), Fombella and Solís (2020), Dislegi (2023), and Sparks et al. (1991) aim to address the specific learning needs of dyslexic students in the context of foreign language learning, particularly English language learning. These approaches prioritise multisensory and structured language instruction to help dyslexic students overcome their challenges and succeed in language acquisition.

- Multi-Sensory Learning

Effective strategies for teaching dyslexic students often incorporate multi-sensory learning (MSL) techniques. Ballesteros & Rascón (2019) emphasise the importance of visual and manipulative methodologies to enhance learning experiences. Fombella & Solís (2020) suggest using strategies that stimulate various senses, such as auditory, visual, tactile, and kinesthetic pathways. These approaches, aligned with Universal Design for Learning (UDL) principles already explained, create inclusive learning environments by accommodating diverse learning styles and needs.

- Orton-Gillingham Approach

The Orton-Gillingham method, as highlighted by Sparks et al. (1991) and Purkayashta et al. (2012), offers a structured, multi-sensory approach to teaching phonology and language patterns, particularly beneficial for dyslexic learners. This approach engages auditory, visual, and kinesthetic pathways simultaneously, fostering language acquisition and literacy skills. By providing continuous positive reinforcement and integrating various senses into learning activities, the Orton-Gillingham approach builds self-confidence and motivation in dyslexic students.

- Overlearning

Dislegi (2023) advocates for overlearning techniques to compensate for weak memorization and language processing skills in dyslexic learners. Overlearning involves providing ample practice and repetition of learning concepts through various tasks and activities. By reinforcing language elements in multiple ways, overlearning facilitates automaticity and enhances retention.

- Metacognitive training

Schneider (2012) highlights the importance of metacognitive training for dyslexic learners to develop problem-solving skills and linguistic awareness. Metacognitive strategies empower students to monitor and regulate their learning process, fostering autonomy in language acquisition.

1.5.3. Materials

In the realm of language education, the choice of materials and the integration of technology play pivotal roles in shaping effective learning experiences, particularly for students with dyslexia. Drawing insights from various scholars in the field, including Dislegi (2023), Olmedo Cruz Micán et al. (2021), and Redie (2015), we can understand how to create inclusive and engaging language learning environments.

Dislegi (2023) advocates for a multisensory approach to language learning, emphasising the importance of using materials that engage multiple sensory channels. Recommending a wide range of tools, Dislegi (2023) suggests integrating technological resources such as recorders, cassettes, MP4 players and computers to enhance learning experiences. These tools not only facilitate access to information but also provide avenues for self-correction and personalised learning, aligning with Olmedo Cruz Micán et al. (2021)'s assertion that technology fosters personalised learning experiences tailored to the needs of students with dyslexia.

The insights provided by Olmedo Cruz Micán et al. (2021) further underscore the transformative potential of technology in language education. Interactive technology, including gamified language learning apps and multimedia resources, can significantly enhance student engagement and motivation. By offering diverse learning opportunities and levelling the playing field for students with dyslexia, technology promotes inclusivity in foreign language learning. This integration of technology not only supports the acquisition of language skills but also promotes digital competence, which is a necessity in today's globalised society.

1.5.4. Assessment and Evaluation

The characteristics of dyslexic students often result in extended time spent on school tasks and homework, yet their academic performance may not reflect their level of effort (Alemany, 2019). Dyslexic students may struggle to demonstrate their knowledge in written assessments, leading to inconsistent academic performance and feelings of frustration and inadequacy. Drawing from the insights of Dislegi (2023), Purkayashta et al. (2012), and

Rohmer et al. (2022), educators can employ a variety of strategies to create assessments that accommodate the diverse needs and abilities of dyslexic learners.

Dislegi (2023) emphasises the importance of tailoring assessments to the characteristics of dyslexic students. Suggestions include allowing oral exams, providing complementary materials, and supporting written test material with graphics or images. Furthermore, assessments should focus on assessing content rather than merely spelling or composition, and the time allowed for exams should be flexible. Involving professionals who influence the students in the assessment process ensures that adaptations are made effectively. Dislegi (2023) recommends measuring students' progress against their own initial level rather than against their peers, fostering a sense of personal achievement.

In the same way as Dislegi's (2023) emphasis on personalised assessment, Purkayashtha et al. (2012) propose leveraging Gardner's theory of multiple intelligences to tailor assessments to dyslexic learners' strengths. By recognizing and valuing different forms of intelligence, educators can design assessments that allow dyslexic students to demonstrate their understanding and skills through their dominant intelligences, promoting a sense of accomplishment and success.

Rohmer et al. (2022) offer insights into mitigating the perceived threat of academic tasks for students with dyslexia. By adjusting the framing of tasks to reduce associations with past academic difficulties and providing individualised support, educators can help dyslexic students feel more comfortable and confident in their abilities, ultimately improving their performance.

2. METHODOLOGY

The following section presents the methodological instruments employed to address the research questions of the study. Firstly, the context where the study was carried out will be presented. Secondly, the participants of the study will be described, and finally, the procedure of how data was collected and analysed will be explained.

2.1. Context

This research has been done in a semi-private school that belongs to the Ikastolen Elkartea network in the Basque Country, while carrying out an in-service teacher training program in Primary Foreign Language lessons. Located in a municipality of around 4.000 inhabitants in the interior of Guipuzcoa, the school caters for students between the ages of two to sixteen, offering the stages of Early Childhood Education, Primary Education and Secondary Education. This school works in the context of the cultural diversity that characterises today's Basque society.

The study took place in a multilingual environment where one of the primary goals of the school is to educate multilingual students, having Basque as the centre of their learning process. The town has always been known for its rich cultural heritage, beautiful landscapes and a strong sense of Basque identity, as well as for the fight in favour of Basque. Therefore, the model implemented in the school is the D model: Basque is the core and main language, and English and Spanish are taught as subjects. At this school, English language instruction starts in the second year of Pre-Primary Education, with students aged 4. Over the years, with cultural diversity increasing, the presence and use of Spanish has become stronger among the inhabitants, so educators and other professionals are now more and more concerned due to the difficulties the strong presence of Spanish brings into school.

When it comes to English lessons, in this school, English is taught through two different methodologies according to the grade students are in. In Pre-Primary and in the first cycle of Primary (1st, 2nd and 3rd grade) children work on storytelling, games, songs and other dynamic activities, which means that students mainly learn the target language through oral learning and self-implication. In the second cycle (4th, 5th and 6th grade) instead,

they start with *EKI Proiektua*, a project-based material that is implemented in all subjects and it also continues in Secondary.

2.2. Participants

In order to study the teaching and learning of the foreign language to students with dyslexia, the participants were on the one hand 11 Primary and Secondary Education teachers. Two of them are primary school Foreign Language teachers, while the others (n=9) are teachers of different subjects. On the other hand, seven students between 10-12 years old diagnosed with dyslexia, and enrolled in grades 5 and 6 of Primary School, also participated in the study. Finally, the 4th, 5th and 6th Primary classrooms (two classrooms for each grade) have also participated, since their English lessons have been observed.

All the information collected about the participants is confidential, the permission of them has been collected and they have been codified in order to maintain their confidentiality. In addition, the parents of the students interviewed had to sign an authorization paper, so that we could conduct the interview, and understand that the information collected would be used to obtain data and answer the research questions and confirm or deny the hypothesis.

- **Primary and Secondary Education Teachers**

A representative sample of Primary and Compulsory Secondary Education teachers from the centre were selected, in order to have a general overview of the reality of dyslexia at school and teacher knowledge about the topic.

The sample consisted of nine service generalist teachers (GT1, GT2, GT3, GT4, GT5, GT6, GT7, GT8, GT9), whose mean age was 39,6. Regarding their gender distribution, 77.8% were female (n=7) and 22.2% were male (n=2). While 77.8% of them (n=7) were working as Primary Education teachers, 11.1% of the sample (n=1) were Secondary Education teachers. Moreover, one of them (11.1%) was in the orientation group, working with students in both Primary and Secondary.

- **English Teachers**

Interviews were conducted with the school's two primary English teachers (ET1, ET2), with experience teaching students with dyslexia. A woman and a man, the first with 7 years of experience in education (formal and non-formal), while the other has been working as an English teacher for 13 years. Their average age is 35.5 years. Regarding the grades in which they teach, one of them is the English teacher from the second year of pre-primary to the third year of primary school, while the other teaches students in the second cycle (grades 4,5 and 6).

- **Primary Education students with Dyslexia**

Individual interviews were carried out with six students diagnosed with dyslexia in fifth and sixth grades of primary, whose mean age is 11.17 (DS1, DS2, DS3, DS4, DS5, DS6). In terms of gender, a third of the students interviewed were girls (n=2), while the rest were boys (n=4). Their L1 was different, even if most of them have Basque as their first language (n=5) and all of them can speak it fluently, one of them has Spanish as their mother tongue. When it comes to English, there are very different levels which we are going to discuss later in the results section.

- **Observation groups**

To carry out the observation, the data has been collected from two groups of 21 students from the fourth grade of Primary Education (PE1, PE2), two groups of 23 and 24 students from the fifth grade of Primary Education (PE3, PE4), and two groups of 20 and 21 students from the sixth grade of Primary Education (PE5, PE6). The two groups in each of the grades were observed in their regular lessons, following the dynamics of *Eki Proiektua*.

2.3. Instruments

In order to gather all the data needed, different instruments have been used: a (A) questionnaire for teachers, (B) semi-structured interviews with Foreign Language teachers, (C) semi-structured interviews with students with Dyslexia, and (D) classroom observation.

A. Questionnaire for Generalist Teachers

As a research instrument, we designed and implemented a questionnaire, which included some multiple-choice questions and others with open-ended responses. It was first

written in English, but later changed to Basque in order to ensure comprehension among the interviewees and the sincerity of their answers, while also avoiding misunderstandings. This structured questionnaire was designed to collect information from primary and secondary school teachers about their practices and perceptions in teaching their respective subjects to students with dyslexia.

The questionnaire was divided into various parts. The first part gathered background information about the respondents, such as gender, age, subjects taught and years of teaching experience, among others. The second section comprised a total of nine items distributed into four main thematic strands, identified as paramount in our research: (i) Awareness of Dyslexia, (ii) Experiences with Dyslexic Students, (iii) Teaching Approaches and Classroom Practices and (iv) Perceived Training Needs (Figure 2). At the end, interviewees were given the opportunity to do any overall reflection or additional comment if wanted. (see appendix 1)

Figure 2.

Google Forms Questionnaire for Generalist Teachers

Dislexiarekiko kontzientzia eta beharrak

Nola baloratuko zenuke dislexiaren inguruko zure kontzientzia orokorra? *

Oso jakitun

Zertxobait jakitun

Ez oso jakitun

Baterere jakitun ez

Otro:

Nola lortu duzu dislexiaren inguruko ezagutza? (Hautatu nahi beste) *

Eskola Tailerrak

Unibertsitate ikastaroak

Autoikaasketa / Irakurketa

Lankideekin elkarriketak

Berritzegunea

Otro:

B. Semi-structured Interviews with Foreign Language Teachers

Semi-structured interviews with foreign language teachers were carried out to learn more about their knowledge regarding dyslexia and its needs, specifically in the field of English as a Foreign Language. The interview included topics such as knowledge about dyslexia, personal experience, adaptations and strategies used in the classroom, perceived challenges, institutional support and resources for addressing those difficulties. They were also given the opportunity to give any recommendations or any aspect that they believed needed to be improved, both personally and as a community. (see appendix 2)

C. Semi-structured Interviews with Students with Dyslexia

Semi-structured interviews were developed to obtain detailed information from students with dyslexia about their experiences and feelings in the English classroom. They were asked about personal experiences, strategies they use to facilitate understanding, the support and adaptations they receive in the classroom, the challenges and obstacles they have to face, or personal reflections and advice, among others (see appendix 3). That way, we were able to know both the positive points and the things to improve, so that these students have the same opportunities as their peers.

D. Classroom Observation

Observation was done in regular lessons with the aim of gathering information related to the quantity and quality of the help, adaptations, progress and gaps regarding dyslexic students within the regular classroom. It was done in the English lessons in 4th-6th grades to know what strategies were applied and how support was given to students with difficulties in reading and writing. The researcher completed an observation chart created on their own where different aspects necessary for the study were evaluated: teacher preparation, classroom environment, instructional strategies, student engagement, feedback and support, and student outcomes. In that way, the researcher could give some recommendations for the teacher to better support dyslexic students in future lessons. (see appendix 4)

2.4. Data Collection and Analysis Procedure

The collection of the necessary and relevant data for our research was collected during the first months of 2024, January and February, while doing an in-service teacher training in the last year of the degree in Primary Education with the mention of Foreign Language. Data was collected in different moments of the service, and the effectiveness of implementing strategies and adaptations for addressing dyslexia in the foreign language classrooms in order to improve students' language learning was analysed both quantitatively and qualitatively.

The data collection began with the researchers' observation about class characteristics, such as the number of students and the methodology used in the school for learning English. After that, observation was carried out during the month of February while attending various Foreign Language (English) lessons in grades 4-6 of Primary. They were conducted in the English classroom to collect data on the learning environment and teacher-student interactions.

Meanwhile, all students diagnosed with dyslexia (DS1, DS2, DS3, DS4, DS5, DS6) and foreign language teachers (ET1, ET2) were interviewed in the month of January. Students were taken out of class for some minutes in order to have privacy and to make them feel comfortable to answer the questions sincerely. In addition, they were given some sweets at the end to thank them for their help and collaboration with our research. However, interviews with English teachers were done during their training hours or even lunch breaks, giving them the opportunity to choose when they wanted to do it, as well as the language being used. Each interview was audio-recorded to gather all the information that was mentioned by the participant, and then transcribed for making the analysis, which enabled the researcher to have a deeper insight of what was the reality of dyslexia in the school.

Questionnaires were distributed to primary and secondary school teachers through Google Forms. The link was shared via Telegram, to a group shared by all the workers of the centre. The objective of the research was explained to them and all teachers were asked to fill out the form; the more they filled it out, the more reliable and comparable the answers would be. This was done at the beginning of February, but at the beginning of the following month a reminder was sent to fill it out.

In the end, an analysis was conducted on both quantitative and qualitative data. The answers of the teacher questionnaires, and the student and teacher interviews were compared and statistically analysed. The observation charts completed both in 4th, 5th and 6th grades English lessons, along with the English teachers' interviews, were contrasted and interpreted in order to compare the outcomes. The quantitative data was analysed using descriptive and statistical techniques to identify patterns and significant relationships. However, interview transcripts and observation notes were subjected to qualitative content analysis to identify emerging themes and recurring patterns in participants' responses. It is worth mentioning that all information collected throughout the study was treated confidentially.

3. RESULTS

In the following section, the results obtained from the data collected during the research will be presented and analysed. The results will be presented following the order of the research questions. The first research question of this study aims to assess the specific challenges that dyslexic students encounter in the process of acquiring a foreign language in the primary education classroom, by investigating the impact of dyslexia on language acquisition in the primary education setting.

The second and third research questions focused on the implications and recommendations for ensuring inclusivity within the classroom, mainly in the Foreign Language lessons. Specifically, the second research question focuses on identifying the needs of teachers to effectively address dyslexia in the foreign language classroom, while also analysing their knowledge of the topic. However, the third research question focuses on the strategies and techniques used by school teachers in order to assure the inclusivity, participation and success of dyslexic students. For answering those questions, quantitative and qualitative data was collected and, in this section, it will be deeply analysed.

3.1. Challenges Dyslexic students encounter in the FL Classroom

The first research question was:

RQ1. What are the specific challenges that dyslexic students encounter in the process of acquiring a foreign language in the primary education classroom?

The first research question has the objective to investigate the impact of dyslexia on language acquisition in the primary education setting and conduct a needs analysis to assess the specific requirements of dyslexic students in the foreign language classroom. In order to answer this question, several instruments were used: a structured questionnaire for teachers (see appendix 1); foreign language teachers' perceptions (see appendix 2); students' opinion through an interview where students diagnosed with dyslexia took part (see appendix 3); and an observation chart (see appendix 4) that the researcher completed in English lessons.

3.1.1. Difficulties in reading and language processing

The interviewed students, diagnosed with dyslexia, have given us important insights into their experiences and challenges of learning a foreign language at school. When we asked them about the difficulties they have had to face in the classroom, they claimed various different aspects. Some specific situations requiring great effort were about the common confusion between some graphemes, such as a/e and t/p due to their similar shapes (DS1, DS3, DS4, DS6), as in *bad/bed* or *top/pop*; and also struggling at reading and writing (DS1, DS2, DS3, DS4, DS6). This difficulty was strongly repeated among all the teachers (n=9), who stressed that the reading-writing process requires greater effort for students with dyslexia. For instance, GT3 noted: *"Many dyslexic students struggle with differentiating between similar-looking letters. It's not just about reading; their writing often mirrors these challenges."*

One student (DS3) shared their frustration: *"It's hard to remember which letter is which, especially when they look almost the same. Sometimes, even when I know the word, I write it wrong."* This sentiment was echoed in the classroom, where during a reading session, a student paused multiple times at the word *"pet"*, initially reading it as *"tet"* and then *"pet."* (PE5)

All participants in this study considered that these difficulties increased when it came to English. They highlighted that the opacity of the language and the few connections between phonemes and graphemes make it much more complicated. The two English teachers (ET1, ET2) who have been interviewed have put this idea as the main focus or obstacle. Besides, the English teacher of the youngest children at the centre (Pre-Primary and 1st cycle of Primary) wondered this: *"For many people, the sudden change in phonetics, in the way of writing, is a shock. After my arrival and starting to learn English, it is even more complicated for a student with dyslexia. How are we going to explain to them that "e" is pronounced "i" in English, and that they should not write things the way they do, just as until then, as it made sense to them?"*.

From the interviews with dyslexic students, it was found that a majority (5 out of 7) reported facing challenges in identifying dyslexia in the foreign language classroom. They

expressed difficulties in distinguishing between typical language learning struggles and symptoms of dyslexia, often leading to delayed intervention.

3.1.2. Loss of attention and lack of concentration

The difficulties that students with dyslexia have to face are not few, and many times, keeping up with the pace of the class and that of their classmates' is difficult. Both regular teachers and English teachers referred to the loss of attention and lack of concentration that these students suffer when the sessions are not adapted to their needs.

This was also observed and highlighted by the researcher, who, thanks to the observations done in 4th, 5th and 6th grade in Primary in the English sessions, could see that the students were much more concentrated and involved when the lesson included visuals, manipulative materials and team work (PE1, PE3, PE4, PE6). On the contrary, it was observed that those with dyslexia were easily distracted when working on reading or writing in a traditional way, with long texts and no specific purpose (PE2, PE5). For example, ET2 noted: *"During reading sessions, students with dyslexia often pause at words with tricky graphemes. It seems like they're second-guessing their recognition of the letters."*

3.1.3. Motivation and self-esteem

With the objective of gathering more information about participants' feelings, the students interviewed were asked about the motivation and attitudes towards Foreign Language Teaching. Both dyslexic students and generalist teachers highlighted the significant impact of dyslexia on foreign language learning. A significant proportion of dyslexic students (5 out of 6) reported feelings of frustration and anxiety due to their struggles with reading, writing, and spelling in a foreign language, leading to decreased motivation and engagement in language learning activities. One student (DS5) expressed: *"I get nervous when reading aloud because I often mix up letters like 'b' and 'd' or 'a' and 'e'. It makes me feel like I'm not good at reading."*

However, one student diagnosed with dyslexia (DS2) highlighted that in the subject of English, as it was new for everyone, they felt comfortable and confident, since it is a complicated subject for all and they did not see themselves one step further behind than their classmates. DS1 revealed that the diagnosis of dyslexia and everything that it entailed

was very complicated for them at first, but that with the passage of time everyone has helped them and that they now feel more confident and with greater self-esteem.

3.2. Teachers and Teaching Dyslexic Students

The second research question was:

RQ2. Which is the role of teachers to effectively address dyslexic students' needs in the foreign language classroom, considering their knowledge about dyslexia, the importance of comprehensive training programs, and other gaps and recommendations?

This research question aims to explore the role of teachers in effectively addressing the needs of dyslexic students in the foreign language classroom. Specifically, it investigates teachers' knowledge about dyslexia, the significance of comprehensive training programs, and other gaps and recommendations for supporting dyslexic students in the foreign language learning environment. By understanding these needs, educators can better equip themselves to provide inclusive and effective instruction for dyslexic students, ultimately promoting their academic success and well-being.

3.2.1. Teacher's Role in Dyslexic Students' Language Development

The school and teachers are seen as those most responsible for the language development of children, especially students with dyslexia. Interviews with dyslexic students highlighted their appreciation for teachers' dedication and efforts in supporting their learning. Many students (DS1, DS2, DS3, DS6) expressed gratitude for teachers who provided additional assistance, accommodated their needs, and created inclusive learning environments. DS1 shared: *"My teacher always takes extra time to explain things to me and makes sure I understand before moving on. This one-on-one time makes me feel more confident."* This feeling was supported by DS3, who mentioned: *"When my teacher uses different colours to highlight important words, I can understand and remember better."* This feedback emphasised the importance of recognizing and thanking teachers for their commitment to students' academic success, particularly in addressing the challenges associated with dyslexia.

Classroom observations and teacher interviews indicated that dyslexic students (DS1, DS2, DS3, DS4, DS6) felt comfortable asking questions and seeking help when needed. DS3 explained, *"I never feel scared to ask questions in my language class. My teacher always says there's no such thing as a silly question, and this helps me a lot."* A teacher (GT7) supported this by saying, *"We aim to create a classroom where every student feels comfortable voicing their concerns. This openness is key to their progress."* Teachers generally fostered an open and supportive atmosphere where students felt encouraged to express their concerns and seek clarification on learning tasks. This approach contributed to students' confidence and engagement in the learning process, promoting their academic progress. For example, during a classroom observation, a dyslexic student was observed frequently asking for help during a reading activity, and the teacher responded with patience and encouragement. (PE6)

Moreover, both generalists (7 out of 9) and foreign language teachers (2 out of 2) emphasised the essential role of communication between tutors and language teachers in supporting dyslexic students. Collaborative discussions and sharing of insights allowed for the implementation of targeted strategies and accommodations to meet students' individual needs effectively. One foreign language teacher (ET1) remarked, *"Regular meetings with the tutors help us align our strategies. We share what works and adjust our approaches accordingly."* This coordinated approach facilitated a cohesive support system for dyslexic students across different educational settings. Another teacher (GT3) noted, *"When we have the chance to collaborate, it really enhances the support we can provide."* One student (DS4) mentioned, *"I noticed that when my language teacher and tutor work together, the strategies they use in class are more effective."*

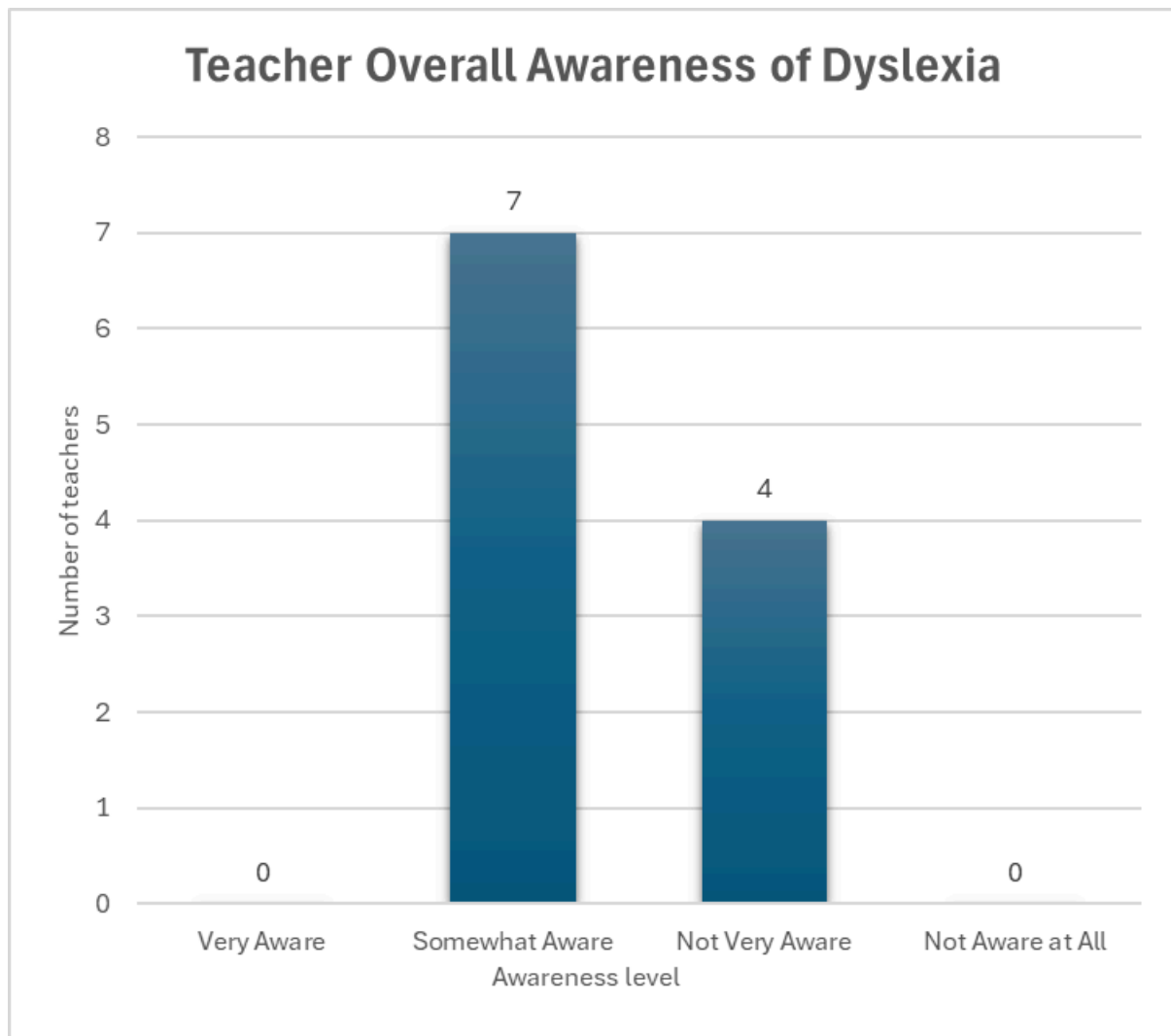
3.2.2. Awareness and Preparedness Among Teachers

Results from the questionnaire for regular teachers (see appendix 1) and interviews with foreign language teachers (see appendix 2) revealed varying levels of awareness and preparedness in addressing dyslexia in the classroom. While some teachers (7 out of 11) expressed confidence in their ability to identify and support dyslexic students, others (4 out of 11) admitted to feeling unprepared and lacking specific strategies for accommodating their needs. (Figure 3). A teacher (GT2) confessed, *"I felt lost when I first had a dyslexic*

student. *I didn't know how to help them effectively.*" This sentiment was repeated by other teachers, highlighting the need for more comprehensive training.

Figure 3.

Teacher overall awareness of dyslexia

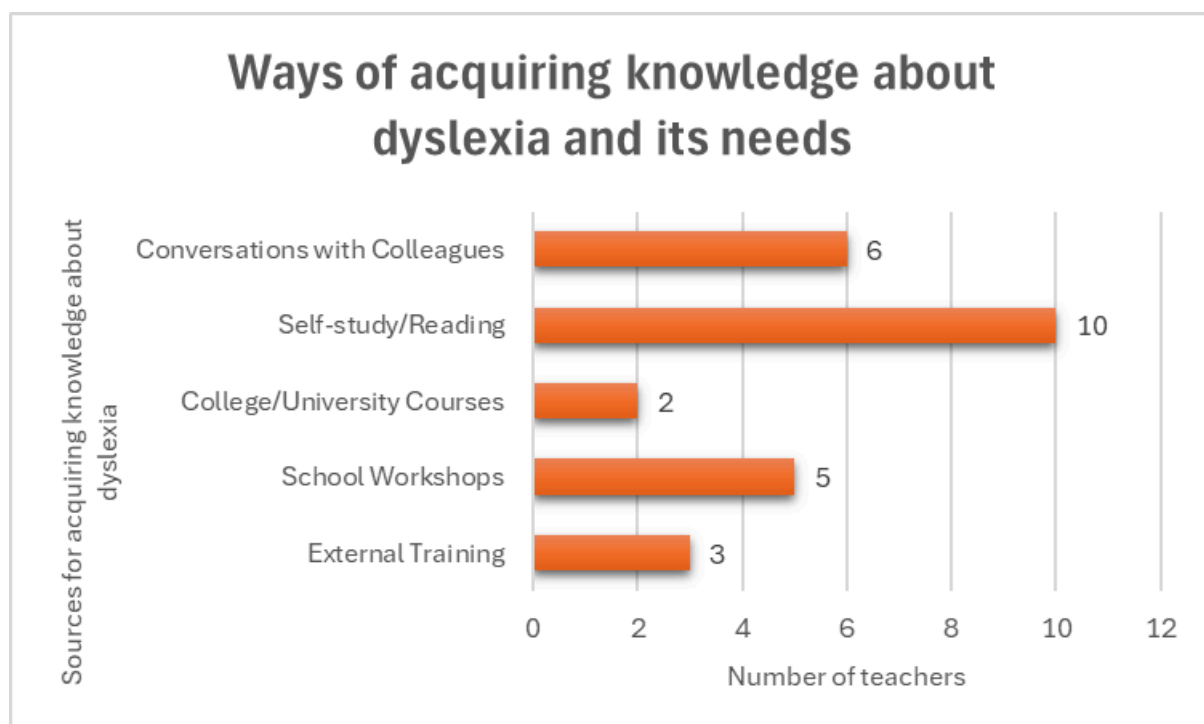


Despite this, the form or source through which they had acquired that knowledge did change depending on the participant. Figure 4 represents the different ways of acquiring knowledge about dyslexia and its needs; and in turn, we can see that the most common way to acquire this knowledge has been self-study or reading, since 10 out of 11 teachers affirmed that. In addition, conversations between colleagues were also highly repeated with more than half (6 out of 11) of the responses. GT9 shared, *"I've learned a lot from reading articles and books on dyslexia. Peer discussions also offer practical insights."*

School workshops and external training were not that common, as they were selected by less than half. Five of them had received training or workshops within the school, while only three had attended or participated in training outside the school environment, organised by associations such as DISLEGI or Berritzeguneak, centres of the Basque Autonomous Community to support schools and teachers in Training and Education Innovation and Dyslexia. On the contrary, just a small minority of the participants (2 out of 11) had acquired knowledge and awareness thanks to college or university courses. One teacher (GT8) said, *"The school workshops provided some insight, but I find that sharing experiences with colleagues during breaks is where I learn the most effective strategies."*

Figure 4.

Ways of acquiring knowledge about dyslexia and its needs



3.2.3. Need for Comprehensive Training Programs

Even though some teachers received training on dyslexia (7 out of 11), it was noted that there is also a need to address educational diversity more broadly. Questionnaires and interviews with teachers highlighted the importance of comprehensive training programs that cover a range of diverse learning needs, including dyslexia, to better equip teachers

with the knowledge and skills necessary to support all students effectively. The interviews with foreign language teachers emphasised the need for targeted professional development on dyslexia awareness and support strategies. Both foreign language teachers (2 out of 2) highlighted their limited knowledge and training in identifying and addressing dyslexia-related challenges in the language learning context.

A significant proportion of the teachers (8 out of 11) emphasised the importance of internal training and collaboration within the school community. They expressed the need for ongoing professional development opportunities that focus on effective teaching practices, inclusive education, and specific strategies for supporting dyslexic students. GT4 explained, "*Training on inclusive education practices should be continuous. We need to keep up with the latest strategies to support our students effectively.*" This need for continuous improvement was also noted by another teacher (GT7) who mentioned, "*The more we learn about dyslexia and other learning difficulties, the better we can adapt our teaching methods.*"

Teachers highlighted the importance of Universal Design for Learning (UDL) training in equipping them with the necessary tools and strategies to support dyslexic students effectively. More than two fifths (5 out of 11) emphasised the need for ongoing professional development opportunities focused on UDL principles and practices, which empower teachers to design instruction that meets the diverse needs of all learners. GT5 stated, "*UDL principles help us design lessons that cater to all students, including those with dyslexia. It's about making learning accessible to everyone.*"

Teachers called for clear guidelines and frameworks for each cycle of training, particularly regarding dyslexia and inclusive teaching practices. A large proportion of them (8 out of 11) emphasised the need for structured training programs that provide ongoing support and guidance throughout the school year, ensuring that teachers have the resources and knowledge they need to effectively support dyslexic students in the foreign language classroom. "*We need a framework that guides us through the academic year,*" remarked GT6, "*This structure ensures we provide consistent and effective support.*" One teacher (GT1) added, "*When we use UDL, it really opens up the lesson for all students, not just those with dyslexia.*"

Time was identified as the most valuable resource when it comes to preparing additional materials and accommodations for dyslexic students. GT7 noted, "*Balancing lesson planning and creating individualised support materials is challenging. We need more time and resources to do this effectively.*" The challenge of balancing instructional demands with the need for individualised support underscored the importance of prioritising time allocation and resource management to meet the diverse needs of all learners effectively, which seems to be one of the major gaps on the topic. One student (DS5) observed, "*When my teacher has more time to prepare, the lessons are much clearer, and I feel I learn more.*"

3.3. Techniques and Strategies that best help Dyslexic Students in the FL classroom

The third research question was:

RQ3. What strategies and adaptations are implemented within the classroom to ensure the inclusivity, participation and academic success of dyslexic students?

Despite the challenges identified, several effective strategies for supporting dyslexic learners in the foreign language classroom emerged from the data. These included multisensory teaching approaches, explicit instruction in phonics and word recognition, provision of assistive technology tools, and differentiated assessment methods.

3.3.1. Classroom adaptations

Both dyslexic students and regular teachers (9 out of 11) reported that using larger font sizes and bold text for important information significantly improved readability and comprehension for dyslexic learners. Dyslexic students (6 out of 7) expressed feeling less overwhelmed when key concepts were visually highlighted. For instance, one dyslexic student (DS2) mentioned, "*When the text is bigger and important words are bold, I don't feel as lost and can understand better.*" Moreover, classroom observations revealed that dyslexic students exhibited increased engagement and participation when materials were presented in larger font sizes. Teachers (8 out of 11) noted improved focus and comprehension among dyslexic students, leading to more active involvement in language learning activities. A teacher (ET2) shared, "*I've seen more focus and fewer complaints about the text being hard to read when we use larger fonts and highlight key points.*"

Interviews with dyslexic students revealed that splitting the text into smaller parts and presenting content in simpler language also facilitated better understanding and retention. A student (DS4) noted, *"Breaking down the text into smaller chunks helps me focus on one thing at a time instead of feeling overwhelmed."* The majority of dyslexic students (5 out of 6) expressed appreciation for teachers who adopted this approach, as it reduced cognitive overload and allowed them to focus on one idea at a time. Regular teachers (6 out of 9) also acknowledged the effectiveness of this strategy in catering to the diverse learning needs of their students. Observations in grades 4, 5, and 6 revealed that dyslexic students demonstrated enhanced focus and attention when the text was split into smaller parts (PE2, PE3, PE6). Moreover, teachers observed reduced instances of frustration and distraction, allowing dyslexic students to engage more effectively with reading and writing tasks. A teacher (GT6) explained, *"By simplifying the language and splitting the content, my dyslexic students find it easier to grasp the material, and their performance has improved."*

Both dyslexic students and regular teachers (10 out of 11) highlighted the benefits of using colours and capitalization to enhance visual clarity and organisation of materials. Dyslexic students (4 out of 6) reported feeling more confident in navigating instructional materials when key information was colour-coded. One student (DS6) stated, *"I like it when important parts are in different colours. It makes it easier to find what I need."* Regular teachers (5 out of 9) observed improved engagement and attention to detail among dyslexic learners. A teacher (GT8) commented, *"Colour-coding key information has made a noticeable difference. Students are more engaged and less likely to miss important details."*

Interviews with dyslexic students revealed that strategic classroom placement played a crucial role in minimising distractions and optimising learning environments. Dyslexic students (5 out of 6) expressed preference for sitting in the front or in quieter areas of the classroom, where they could better focus on instruction and interact with teachers. One student (DS2) said, *"When I sit at the front, I can hear the teacher better and stay focused."* Regular teachers (8 out of 9) also recognized the importance of accommodating dyslexic students' needs through strategic seating arrangements. *"Placing dyslexic students where they can concentrate better and interact more with the teacher has significantly improved their participation,"* a teacher (GT5) noted. Moreover, classroom observations also indicated

that dyslexic students' location in the classroom played a significant role in their participation and academic performance (PE1, PE3, PE4, PE5).

Interviews with foreign language teachers highlighted the effectiveness of incorporating Universal Design for Learning (UDL) features aligned with Bloom's Taxonomy. Teachers observed that implementing varied instructional strategies catered to diverse learning needs, including dyslexic students, resulting in increased student participation and achievement across different proficiency levels. A teacher (ET1) shared, "*Using UDL, I've noticed my dyslexic students are more engaged and their comprehension has improved. They feel included and supported.*" Both dyslexic students (5 out of 6) and regular teachers (7 out of 9) recognized the value of incorporating Universal Design for Learning (UDL) features aligned with Bloom's Taxonomy to promote inclusive and scaffolded learning experiences. Dyslexic students (5 out of 6) reported feeling more supported and empowered when instructional activities were designed to cater to diverse learning styles and abilities, while regular teachers (7 out of 9) noted increased student engagement and achievement outcomes.

Dyslexic students expressed preference for engaging with texts in various ways, such as through audio recordings, interactive multimedia, and collaborative group activities. One student (DS1) remarked, "*Listening to the text while reading helps me understand it better.*" Interviews with foreign language teachers stressed the importance of integrating Information and Communication Technology (ICT) tools to enhance accessibility and participation for dyslexic learners. Both dyslexic students (4 out of 6) and regular teachers (6 out of 9) emphasised the positive impact of these strategies on language learning outcomes and overall student well-being. "*ICT tools have been a game-changer. Students are more motivated and interactive during lessons,*" a teacher (GT8) stated.

Furthermore, classroom observations indicated that dyslexic students benefited from collaborative learning experiences and the integration of Information and Communication Technology (ICT) tools (PE2, PE4, PE5, PE6). "*Group activities and peer editing sessions have not only improved their skills but also boosted their confidence,*" observed GT1. Students engaged in group activities, such as peer editing and collaborative projects, which fostered a

sense of community and provided opportunities for dyslexic students to excel through their unique strengths, such as creativity and problem-solving skills.

3.3.2. Additional support for students

Interviews with dyslexic students highlighted the crucial role of speech therapy in their academic and personal development. Many students (5 out of 6) expressed gratitude for the individualised support provided by speech therapists, who helped them improve their phonological awareness, speech clarity, and oral language skills. One student (DS3) shared, *"Speech therapy has helped me speak more clearly and understand words better."* Quantitative analysis of student progress showed significant improvements in reading fluency and comprehension among those who received regular speech therapy sessions (5 out of 6).

Additionally, regular teachers (7 out of 9) reported a noticeable increase in students' confidence and participation in classroom discussions following speech therapy interventions, which was also remarkable in classroom observations. *"We've seen remarkable progress in students who attend speech therapy. Their confidence in participating in class has also increased,"* GT5 noted. These findings underscored the importance of early intervention and ongoing support from speech therapists in addressing the unique needs of students with dyslexia and promoting their overall academic success.

Interviews with regular teachers and foreign language teachers also revealed the effectiveness of therapeutic pedagogy in supporting students with dyslexia in the foreign language classroom. Teachers (8 out of 11) reported integrating therapeutic techniques, such as multisensory instruction, structured literacy programs, and mindfulness activities, into their teaching practices to address students' cognitive, emotional, and behavioural challenges. Classroom observations demonstrated that therapeutic pedagogy fostered a positive and supportive learning environment where students felt empowered to take risks, explore their strengths, and overcome obstacles. *"Incorporating therapeutic methods has created a more supportive and positive learning environment. Students feel more comfortable taking risks and engaging in activities,"* GT5 explained.

Quantitative analysis of student engagement and achievement indicated that lessons where therapeutic pedagogy was implemented consistently saw higher levels of academic progress and well-being among dyslexic students. "*Students who receive therapeutic pedagogy are not only performing better academically but are also more confident and less anxious,*" a teacher (GT3) observed. These results highlighted therapeutic pedagogy as a valuable educational instrument for promoting inclusive learning environments and maximising the potential of students with dyslexia. All the interviewed students (6 out of 6) agreed that when they went out of the classroom with the therapeutic pedagogy teacher, they felt more confident and calm, they were able to concentrate more, and the contents and ideas were better understood.

3.3.3. Attitudes and relationships

Positive teacher-student relationships were identified as a crucial factor in supporting dyslexic learners in the foreign language classroom. Dyslexic students expressed appreciation for teachers who showed patience, understanding, and willingness to provide additional assistance and encouragement: "*My teacher always takes the time to help me and never gets frustrated. It makes me feel more confident.*" (DS4)

Classroom observations revealed that dyslexic students benefited from closer proximity to teachers during foreign language lessons, showing more responsiveness to their needs, offering timely assistance and encouragement. Teachers who maintained close physical proximity to students, especially those with dyslexia, were observed to provide more timely support and assistance, leading to increased confidence and academic progress among students. Surveys conducted among dyslexic students revealed that five out of six felt more supported and confident when teachers were physically closer during foreign language lessons. A teacher (GT7) shared, "*Being close to the students allows me to quickly offer help and encouragement, which boosts their confidence and participation.*"

Interviews with regular teachers highlighted the importance of effective communication between classroom teachers and specialists, such as special education teachers or dyslexia specialists. Teachers (9 out of 11) reported that regular consultations and collaboration with specialists enabled them to better understand and address the specific needs of dyslexic students, resulting in more tailored support and interventions,

according to questionnaire responses and interviews with English teachers. *"Working closely with specialists has allowed us to tailor our support and interventions more effectively,"* GT6 explained.

Dyslexic students expressed appreciation for teachers who demonstrated great dedication and invested time in their academic development (6 out of 6). One student (DS1) remarked, *"My teacher always checks in with me and makes sure I'm keeping up. It helps a lot."* Interviews revealed that teachers who showed genuine interest and involvement in supporting dyslexic students fostered positive relationships and created a supportive learning environment conducive to student success. *"When students see that we care about their progress, they're more motivated and engaged,"* a teacher (GT5) noted. The majority of dyslexic students (5 out of 6) reported feeling more motivated and engaged in foreign language lessons when teachers showed greater involvement and dedication, as indicated in interviews.

Both dyslexic students and regular teachers emphasised the importance of close treatment in building trust and confidence among students, fostering a supportive learning environment. One student (DS6) shared, *"I feel comfortable asking for help because my teacher understands my struggles."* Teachers who adopted a compassionate and empathetic approach towards dyslexic students were perceived as more approachable and supportive, leading to improved student well-being and academic performance (PE2, PE4). *"Being empathetic and patient makes a big difference. Students are more open to learning and participating,"* ET2 commented. Dyslexic students (5 out of 6) reported feeling more comfortable seeking help and support from teachers who demonstrated empathy and close treatment, based on questionnaire responses.

Classroom observations indicated that positive reinforcement played a crucial role in motivating dyslexic students to overcome challenges and strive for academic excellence. Teachers who consistently acknowledged and celebrated students' efforts and achievements, regardless of their academic outcomes, contributed to the development of a growth mindset and a positive learning atmosphere. *"Recognizing and celebrating small achievements helps build their confidence and encourages them to keep trying,"* GT1 claimed. A significant proportion of dyslexic students reported feeling more confident in

their abilities and more willing to take academic risks when receiving regular positive reinforcement from teachers, according to interviews.

Interviews with dyslexic students highlighted the positive impact of teachers setting high expectations and believing in their potential, since all of them (6 out of 6) reported feeling more motivated and driven to succeed academically when teachers set high expectations for them, DS4 noted, "*When my teacher believes I can do it, I try harder and usually do better.*" Interviews revealed that teachers who challenged dyslexic students to reach their full potential, while providing necessary support and accommodations, fostered a sense of empowerment and self-confidence among students, leading to academic improvement and personal growth. "*Setting high expectations, combined with the right support, helps students reach their full potential,*" GT2 explained.

Both dyslexic students and foreign language teachers emphasised the importance of creating the right environment for learning. One student (DS5) stated, "*I feel included and valued when the classroom environment is supportive and flexible.*" This included implementing multisensory teaching methods, providing flexible learning opportunities, and fostering a supportive and inclusive classroom culture where all students felt valued and respected. Classroom observations indicated that around 85% of foreign language lessons included multisensory teaching methods and fostered a positive classroom culture conducive to learning for dyslexic students.

This phrase taken from one of the interviews reflects the idea of inclusivity: "*Dislexia duten horien garunak lan egiteko beste modu bat du, baina honek bestelako ikuspegi aberasgarriak ere ekar diezazkioke ikasleari.*" (=The brain of those with dyslexia has a different way of working, but this can also bring other enriching perspectives to the student.)

Dyslexic students' families play a vital role in their academic success and well-being. Interviews with dyslexic students highlighted the importance of family involvement and training in understanding and supporting their learning needs. The same way, both the foreign language teachers and regular teachers (9 out of 11) highlighted the importance of empowering families with knowledge and strategies to support their dyslexic children.

Schools would foster stronger partnerships between home and school environments, ultimately enhancing students' overall success and well-being.

4. DISCUSSION

In this chapter the discussion of the study will be presented by analysing the results obtained and comparing them with previous studies in the field of dyslexia and language difficulties, while answering the research questions. The first research question aims at analysing the specific challenges that dyslexic students encounter in the process of acquiring a foreign language in the Primary Education Classroom. Furthermore, the second research question focuses on the teachers' knowledge about dyslexia, the importance of comprehensive training programs, and other gaps and recommendations. In order to further assess the adjustments done and the procedures used in class, the third research question analyses strategies and adaptations that are implemented to ensure the inclusivity, participation and academic success of dyslexic students, regarding the EFL classroom.

Consequently, the aim of this study was to investigate the impact of dyslexia on language acquisition in the primary education setting and conduct a needs analysis to assess the specific requirements of dyslexic students in the foreign language classroom, while identifying the strategies, recommendations and guidelines for educators to integrate dyslexia-inclusive practices into their foreign language teaching methodologies. For that, observation was carried out with second-cycle students, in which they had regular lessons in English (see appendix 4). Moreover, the words of both students with dyslexia (see appendix 3) and teachers (see appendices 1 and 2) have been taken into account when carrying out this research.

The study revealed that dyslexic students encounter significant challenges in reading and language processing when learning a foreign language. These findings are consistent with existing literature, which indicates that dyslexia affects phonological processing, decoding, and spelling abilities (Shaywitz, 2003). The reported confusion between graphemes, difficulties in reading and writing, and the increased effort required align with Alvarez-Cañizo et al.'s (2023) findings on the cognitive demands placed on dyslexic learners.

Goswami et al. (2011) identified similar cross-linguistic sensory deficits, which are particularly pronounced in dyslexic learners. These sensory deficits, affecting phonological awareness and decoding abilities, contribute to the heightened challenges in FL learning, as observed in this study. Additionally, the confusion between graphemes and difficulties in

reading and writing tasks corroborate the findings of Gialluisi et al. (2021) on the genetic and heritable nature of developmental dyslexia.

Furthermore, the loss of attention and lack of concentration observed in dyslexic students during traditional reading and writing tasks can be linked to Alemany's (2019) exploration of the social consequences of learning difficulties, highlighting the increased cognitive and emotional load these students face. Dyslexic students' preference for visuals, manipulative materials, and teamwork supports the application of multisensory teaching methods, as advocated by Dislegi (2023), which are designed to engage multiple sensory pathways to facilitate learning.

The study highlighted the critical role of teachers in supporting dyslexic students, emphasising the importance of teachers' knowledge about dyslexia and effective instructional strategies. Csizér et al. (2010) noted the dynamics of language learning attitudes and motivation among dyslexic students, underscoring the necessity for teacher awareness and the adoption of motivating and supportive teaching practices.

However, the variability in teachers' confidence and readiness reported in the study indicates a gap in formal training and professional development. While some teachers relied on self-study or peer support, others lacked specific strategies to support dyslexic students effectively. This finding aligns with research by Lemperou et al. (2011), which stresses the need for comprehensive and targeted training programs focused on dyslexia and inclusive education, that equip teachers with the skills and knowledge to support dyslexic students effectively. The observed reliance on self-study or peer support by some teachers aligns with Kormos and Smith's (2012) findings on the necessity of comprehensive training for teaching languages to students with specific learning differences.

The results underscored the effectiveness of multisensory teaching approaches, explicit phonics instruction, and the use of assistive technology in supporting dyslexic students. These strategies are supported by the Orton-Gillingham approach and other structured literacy programs that emphasise direct, explicit, and systematic instruction in phonological awareness, decoding, and spelling (Dislegi, 2023).

Classroom adaptations, such as using larger fonts, bold text, colour-coding, and strategic classroom placement, were reported to enhance readability and minimise distractions. These adaptations align with the principles of Universal Design for Learning (UDL), which advocate for providing multiple means of representation, engagement, and expression to accommodate diverse learners (Fombella & Solis, 2020). The positive impact of these adaptations on student engagement and comprehension underlines the importance of creating an accessible and supportive learning environment.

The study also highlighted the importance of additional support, such as speech therapy and therapeutic pedagogy, in improving the academic success and well-being of dyslexic students. Norton et al. (2015) discussed the neurobiological underpinnings of dyslexia and the importance of targeted interventions to support reading development and overall cognitive growth.

Moreover, the significance of positive teacher-student relationships, effective communication with specialists, and family involvement cannot be overstated, as emphasised by Redie (2015), who highlights the importance of a holistic approach in addressing the needs of students with dyslexia. The dedication and understanding shown by teachers, coupled with collaborative efforts among educators, specialists, and families, create a supportive network that fosters resilience and academic achievement in dyslexic students.

The discussion demonstrates that the findings from this study align with and support the existing theoretical background. The critical role of teachers, the importance of awareness and preparedness, and the necessity for comprehensive training programs are consistent themes in both the literature and the study's findings. However, the study also highlights practical challenges, such as time constraints and the reliance on self-study, which need to be addressed to bridge the gap between theory and practice. By addressing these gaps and implementing the recommended strategies, educators can better support dyslexic students in the foreign language classroom, ultimately promoting their academic success and well-being.

5. CONCLUSION, LIMITATIONS AND FURTHER RESEARCH

The study highlights the multifaceted challenges dyslexic students face in foreign language (FL) classrooms and highlights the critical role of teachers in mitigating these challenges through informed, empathetic, and adaptive teaching strategies. Dyslexic students often struggle with phonological processing, reading comprehension, and writing tasks in FL learning, necessitating the use of multisensory teaching methods, explicit phonics instruction, and classroom adaptations.

Adaptations in teaching methodologies and materials are essential to support students with dyslexia in their language learning journey, in order to reduce the challenges and difficulties mentioned above. That way, adapting the sessions and following strategies to improve the performance of each and every student is important. Both inside and outside the classroom, teachers' attitudes and behaviours must take into account the pursuit of inclusivity and student success.

Teacher preparedness and attitudes significantly impact the effectiveness of support provided to dyslexic students. The variability in teachers' confidence and preparedness points to a pressing need for comprehensive professional development. Positive teacher-student relationships, coupled with collaborative efforts among educators, specialists, and families, are crucial for fostering an inclusive and supportive learning environment.

All in all, the findings of this study have several implications for practice. First, there is a need for comprehensive professional development programs that equip teachers with the knowledge and skills to support dyslexic students effectively. Such programs should emphasise multisensory teaching methods, UDL principles, and the use of assistive technologies. Second, schools should adopt a collaborative approach, involving regular communication and coordination among classroom teachers, special education teachers, speech therapists, and families. This ensures that dyslexic students receive consistent and tailored support across different contexts.

Collaborative sharing of best practices and experiences among teachers would further enrich the learning environment and promote collective growth. Internal training

programs tailored to the school's specific needs and context are essential for building teachers' capacity and fostering a culture of continuous improvement. Qualitative analysis of interviews with dyslexic students, regular teachers, and foreign language teachers stressed the significance of community collaboration in supporting dyslexic learners. Quantitative data revealed that educators claimed for active involvement from community stakeholders, such as local organisations, businesses, and educational institutions, in order to experience higher rates of successful inclusion and support for dyslexic students. Collaborative initiatives, such as community workshops, guest lectures, and volunteer programs, would provide additional resources and expertise to enhance the learning environment for dyslexic students.

In terms of the limitations, the number of participants could be interpreted as a limitation, since the study was only done with a minority of the teachers, even though it was expected that many more answered the questionnaire. Therefore, having carried out the study based on a larger sample size could have given more accurate results. Likewise, it is important to take into account that these results have been analysed in one school. Consequently, they may not be representative of the whole Basque Country.

As for further research, there is a need to explore the progress of dyslexic students over time and the long-term effectiveness of various teaching strategies and interventions, which would provide deeper insights into the sustained impact of educational practices. Lastly, in order to draw more accurate conclusions on the effects of dyslexia in foreign language learning, it could be beneficial to carry out the research in other types of schools as well, including different countries, educational systems, and linguistic backgrounds, would help tailor interventions to specific needs and contexts and enhance the generalizability of the findings.

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7. APPENDICES

Appendix 1: Questionnaire for Generalist Teachers

Survey on Teachers' Knowledge and Experiences with Dyslexia - English

Section 1: Demographics

Context Information:

- Name of the school:
- Grade Level(s) taught:
- Subjects taught:
- Years of teaching experience:

Section 2: Awareness of Dyslexia

- How would you rate your overall awareness of dyslexia?
 - Very Aware
 - Somewhat Aware
 - Not Very Aware
 - Not Aware at All

- How did you gain knowledge about dyslexia? (Select all that apply)
 - Berritzegunea
 - School Workshops
 - College/University Courses
 - Self-study/Reading
 - Conversations with Colleagues
 - Other (Specify): _____

Section 3: Experiences with Dyslexic Students

- Have you ever taught a student formally diagnosed with dyslexia?

- Yes
- No

If yes, please share your experiences. What challenges and strengths did you observe? [Open-ended response]

Section 4: Teaching Approaches and Classroom Practices

- What specific strategies or approaches do you currently use to support dyslexic students in your classroom? [Open-ended response]

Section 5: Perceived Training Needs

- Do you feel adequately prepared to address the needs of dyslexic students in your classroom?
 - Yes
 - No
 - Neutral
- What additional training or resources do you believe would be helpful in supporting dyslexic students? [Open-ended response]

Section 6: Overall Reflections

- In your opinion, how can schools better support teachers in addressing the needs of dyslexic students? [Open-ended response]

Section 7: Additional Comments

- Is there anything else you would like to share regarding dyslexia in the educational context? [Open-ended response]

Irakasleen Dislexiarekiko Ezagutza eta Esperientziei buruzko Galdetegia - Euskara

1. atala: Demografia

Testuingurua:

- Ikastetxearen izena:
- Irakatsitako maila(k):
- Irakasgaiak:
- Irakaskuntzako urteetako esperientzia:

2. atala: Dislexiarekiko kontzientzia

- Nola baloratuko zenuke dislexiaren inguruko zure kontzientzia orokorra?
 - Oso jakitun
 - Zertxobait jakitun
 - Ez oso jakitun
 - Batere jakitun ez
- Nola lortu duzu dislexiari buruzko ezagutza? (Hautatu aplikatzen diren guztiak)
 - Berritzegunea
 - Eskola Tailerrak
 - Unibertsitate Ikastaroak
 - Autoikasketa/Irakurketa
 - Lankideekin elkarrizketak
 - Beste batzuk (Zehaztu): _____

3. atala: Dislexia duten ikasleekin izandako esperientziak

- Irakatsi al diozu inoiz dislexia formalki diagnostikatu zaion ikasle bati?
 - Bai
 - Ez

Baiezkoa bada, mesedez partekatu zure esperientziak. Zein erronka eta indargune ikusi dituzu? [Erantzun irekia]

4. atala: Irakaskuntza-ikuspegiak eta ikasgelako praktikak

- Zein estrategia edo ikuspegi zehatz erabiltzen dituzu gaur egun zure ikasgelan dislexia duten ikasleei laguntzeko? [Erantzun irekia]

5. atala: Hautemandako prestakuntza-beharrak

- Prest zaude zure ikasgelan dislexia duten ikasleen beharrei erantzuteko?
 - Bai
 - Ez
 - Hein batean
- Zure ustez, zein prestakuntza edo baliabide osagarri izango lirateke lagungarri dislexia duten ikasleei laguntzeko? [Erantzun irekia]

6. Atala: Hausnarketa Orokorrak

- Zure ustez, nola lagundu dezake ikastolak irakasleek dislexia duten ikasleen beharrei hobeto erantzun diezaieten? [Erantzun irekia]

7. atala: Iruzkin osagarriak

- Ba al dago hezkuntza-testuinguruan dislexiaren inguruan partekatu nahiko zenukeen beste zerbait? [Erantzun irekia]

Appendix 2: Semi-structured Interview for Foreign Language Teachers

Dyslexia and Foreign Language Teaching Interview - English

Demographic information:

- a. What is your level of experience as a foreign language teacher in primary education?
- b. How many students do you currently have in your foreign language classroom?

Knowledge about Dyslexia:

- a. Are you familiar with the characteristics of dyslexia?
- b. Have you received specific training on how to address the needs of dyslexic students in the foreign language classroom?

Current Adaptations and Strategies:

- a. What adaptations or adjustments do you currently implement in your classroom to support dyslexic students in learning foreign languages?
- b. Do you use specific strategies to encourage the participation of dyslexic students in reading, writing or listening comprehension activities?

Perceived Challenges:

- a. In your opinion, what are the major challenges faced by dyslexic students when learning a foreign language?
- b. Is there any particular challenge related to teaching foreign languages to students with dyslexia that you would like to highlight?

Resources and Institutional Support:

- a. What resources and support are available in your institution to address the needs of dyslexic students in the foreign language classroom?

- b. Is there any specific institutional initiative to promote the inclusion of students with dyslexia in foreign language teaching?

Suggestions and Improvements:

- a. Do you have any suggestions or ideas to improve the teaching of foreign languages for dyslexic students in your classroom?
- b. What kind of additional training or resources do you consider beneficial to address the needs of these students?

Personal Experiences:

- a. Have you had notable experiences working with dyslexic students in the foreign language classroom? If so, can you share any examples?
- b. How do you address individual differences in foreign language learning in your daily teaching practice?

*open-ended questions to encourage more detailed and reflective responses from teachers.

Atzerriko hizkuntza irakasleentzako elkarrizketa - Euskara

Informazio demografikoa:

- a. Zein da zure esperientzia maila atzerriko hizkuntza irakasle gisa lehen hezkuntzan?
- b. Zenbat ikasle dituzu gaur egun zure atzerriko hizkuntzako ikasgelan?

Dislexiari buruzko ezagutza:

- a. Ezagutzen al dituzu dislexiaren ezaugarriak?
- b. Prestakuntza espezifiko jaso al duzu atzerriko hizkuntzen ikasgelan ikasle dislexikoen beharrei erantzuteko?

Egungo egokitzapenak eta estrategiak:

- c. Zein egokitzapen edo moldaketa ezartzen dituzu gaur egun zure ikasgelan ikasle dislexikoei atzerriko hizkuntzak ikasten laguntzeko?
- d. Estrategia zehatzak erabiltzen dituzu dislexia duten ikasleen parte-hartzea sustatzeko irakurketa, idazketa edo entzumenezko ulermeneko jardueretan?

Hautemandako erronkak:

- e. Zure ustez, zein dira dislexiadun ikasleek atzerriko hizkuntza bat ikasteen dituzten erronka nagusiak?
- f. Ba al dago dislexia duten ikasleei atzerriko hizkuntzak irakasteari lotutako erronka berezirik nabarmendu nahi duzuna?

Baliabideak eta laguntza instituzionala:

- g. Zein baliabide eta laguntza daude zure erakundean atzerriko hizkuntzen ikasgelan ikasle dislexikoen beharrei erantzuteko?
- h. Ba al dago erakunde-ekimen zehatzik atzerriko hizkuntzen irakaskuntzan dislexia duten ikasleen inklusioa sustatzeko?

Iradokizunak eta hobekuntzak:

- i. Iradokizun edo ideiarik ba al duzu ikasle hauen irakaskuntza hobetzeko atzerriko hizkuntzako ikasgelan?
- j. Zer nolako prestakuntza edo baliabide osagarri iruditzen zaizu onuragarria ikasle hauen beharrei erantzuteko?

Esperientzia pertsonalak:

- k. Esperientzia nabarmenik izan al duzu ikasle dislexikoekin atzerriko hizkuntzen ikasgelan lanean? Hala bada, partekatu dezakezu batenbat?

I. Nola jorratzen dituzu atzerriko hizkuntzen ikaskuntzan dauden desberdintasun indibidualak zure eguneroko irakaskuntza praktikan?

*irakasleen erantzun zehatzagoak eta gogoetatsuagoak sustatzeko galdera irekiak.

Appendix 3: Semi-structured Interviews with Dyslexic Students:

Semi-structured Interviews with Dyslexic Students:

Introduction and Trust:

- a. How do you feel about learning a foreign language?
- b. Can you tell me about any positive experiences you've had in foreign language classes?

Learning Experiences:

- a. Can you describe how you feel when faced with reading tasks in the foreign language?
- b. What are the most challenging parts for you when learning to write in another language?

Learning Strategies:

- a. Do you use any specific strategies to address difficulties you may encounter in learning foreign languages?
- b. How do you adapt your study approach to maximise your understanding and retention?

Support and Adaptations:

- a. Do you feel you receive adequate support in the foreign language classroom?
- b. Can you mention any specific adaptation that has been helpful for you in learning foreign languages?

Challenges and Obstacles:

- a. Is there any specific aspect of learning a foreign language that you find particularly difficult due to dyslexia?

- b. How do you feel when participating in oral or listening comprehension activities in the foreign language classroom?

Relationship with the Teacher:

- a. How is your relationship with your foreign language teacher?
- b. Do you feel comfortable expressing your needs and challenges in the classroom?

Advice for Teachers:

- a. What advice would you give to your foreign language teachers to assist dyslexic students in the classroom?
- b. Is there anything specific you think teachers could do to improve support for students like yourself?

Personal Reflections:

- a. How do you feel about your own progress in learning foreign languages?
- b. Do you have any anecdotes or experiences you would like to share related to language learning?

Dislexia duten ikasleei egiteko elkarrizketa erdiegituratuak - Euskara

Aurkezpena eta konfiantza:

- a. Nola sentitzen zara atzerriko hizkuntza bat ikastea?
- b. Kontatu dezakezu atzerriko hizkuntzen klaseetan bizi izan duzun esperientzia positiboren bat?

Ikaskuntza esperientziak:

- a. Deskriba dezakezu nola sentitzen zaren atzerriko hizkuntzan irakurtzeko zereginen aurrean?

b. Zer da zuretzat zailena beste hizkuntza batean idazten ikastea?

Ikasteko estrategiak:

- c. Estrategia zehatzik erabiltzen al duzu atzerriko hizkuntzak ikastea izan ditzakezun zailtasunei aurre egiteko?
- d. Nola moldatzen duzu ikasketa-ikuspegia zure ulermena eta barnerapena handitzeko?

Laguntza eta egokitzapenak:

- e. Atzerriko hizkuntzen ikasgelan laguntza egokia jasotzen al duzu?
- f. Aipa al dezakezu atzerriko hizkuntzak ikasteko lagungarri izan zaizun egokitzapen zehatzik?

Erronkak eta Oztupoak:

- g. Ba al dago zerbait dislexiaren ondorioz bereziki zaila dena atzerriko hizkuntza bat ikastea?
- h. Nola sentitzen zara atzerriko hizkuntzen ikasgelan ahozko edo entzuteko ulermeneko jardueretan parte hartzean?

Irakaslearekin harremana:

- i. Nolakoa da zure harremana atzerriko hizkuntza irakaslearekin?
- j. Eroso sentitzen al zara zure beharrak eta erronkak ikasgelan adierazterakoan?

Irakasleentzako aholkuak

- k. Zer aholku emango zenieke zure atzerriko hizkuntzetako irakasleei dislexia duten ikasleei ikasgelan laguntzeko?
- l. Zure ustez, ikasleei laguntza gehiago eskaintzeko irakasleek egin beharko luketen zerbait ba al dago?

Hausnarketa pertsonala:

- m. Nola sentitzen zara atzerriko hizkuntzan egindako aurrerapenarekin?
- n. Hizkuntzen ikaskuntzarekin lotutako anekdota edo esperientziarik ba al duzu partekatu nahi duzuna?

Appendix 4: Observation Chart for Primary Foreign Language Lessons

- Grade Level: 4th - 6th Grade
- Subject: Foreign Language (English)
- Observer: Irati Jauregi

Date of Observation:

Lesson Overview:

- Lesson Topic:
- Duration: 1 hour
- Teacher: Iñaki Mandiola
- Classroom:
- Number of Students:
- Focus of Observation: Dyslexia awareness, support for students with dyslexia

Observations:

Observation Category	Observations
Teacher Preparation	<ul style="list-style-type: none"> - Did the teacher demonstrate awareness of dyslexia and its implications for foreign language learning?

	<ul style="list-style-type: none"> - Were instructional materials and activities designed with dyslexic students' needs in mind? - Any specific accommodations or modifications noted?
<p>Classroom Environment</p>	<ul style="list-style-type: none"> - Was the classroom environment conducive to learning for all students, including those with dyslexia? - Were there any visual aids, multisensory materials, or organizational strategies to support dyslexic students?
<p>Instructional Strategies</p>	<ul style="list-style-type: none"> - What instructional methods were used during the lesson (e.g., direct instruction, cooperative learning, multisensory approaches)? - How did the teacher differentiate instruction to meet the diverse needs of students, including dyslexic learners? - Were scaffolding techniques or peer support observed?
<p>Student Engagement</p>	<ul style="list-style-type: none"> - How actively engaged were the students in the lesson? - Did dyslexic students participate and interact with the material? - Were there any instances of frustration or disengagement among dyslexic students? - How did the teacher encourage participation and maintain student motivation?
<p>Feedback and Support</p>	<ul style="list-style-type: none"> - How did the teacher provide feedback to students, particularly those with dyslexia?

	<ul style="list-style-type: none"> - Were there opportunities for corrective feedback and positive reinforcement? - Did the teacher offer individualized support or intervention when needed? - How did the teacher promote a supportive and inclusive classroom culture?
Student Outcomes	<ul style="list-style-type: none"> - What were the learning outcomes of the lesson for dyslexic students? - Were there any notable improvements or challenges observed? - How did the lesson contribute to the overall language development of dyslexic students? - Any insights into areas for further support or intervention?

Recommendations:

- Based on the observations, what recommendations do you have for the teacher to better support dyslexic students in future lessons?
 - Are there any specific professional development needs or resources that could benefit the teacher in addressing dyslexia in the foreign language classroom?
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Additional Comments or Reflections