EFL Teachers and Dyslexia:

How Is Dyslexia Perceived by EFL Teachers in the Netherlands

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Abstract

The present study aimed to establish whether EFL teachers in the Netherlands received any training on teaching students with dyslexia, how they perceive their own capabilities in this regard, as well as how they help students with dyslexia in their classrooms. A questionnaire was used to collect self-report data from 47 EFL teachers across the Netherlands. The results of the questionnaire suggest teachers generally receive little training on dyslexia or how to effectively help students with dyslexia. However, it seems that most teachers are in favour of such training. The results further suggest it is possible that a considerable number of EFL teachers in the Netherlands lacks confidence in their own abilities to help students with dyslexia. While this last point can also be observed in their reports of classroom practices, they also point to possible areas for improvement. While the results suggest EFL teachers in the Netherlands usually employ differentiation when it comes to language testing, it seems differentiation during the teaching phase is far less common.

Keywords: dyslexia, specific learning disorder, EFL, foreign language learning, teachers

1. Introduction

1.1 - Motivation

English is a mandatory subject in Dutch secondary schools. Students are required to take it for the entire duration of their secondary education, regardless of the level of education (Ministry of Education, 2020). This puts English on par with Dutch and mathematics, as every student is required to pass English to graduate high school. This little fact about the Dutch educational system illustrates the emphasis the Dutch government, and by extension Dutch society, places on learning English. The success of this approach is reflected by the fact, that English Proficiency Index ranked the Netherlands as the country with the best English skills (EF, 2019). The Netherlands, however, is not the only country where English language education features heavily in secondary education. Kormos (2013) argues that in many non-English speaking countries English proficiency is often seen as equally vital to success as skills such as literacy and mathematics.

Such a substantial emphasis on a foreign language often proves to be problematic for a specific group of students, namely those with dyslexia. For people with dyslexia, language is difficult. Children with dyslexia often experience difficulties when learning their native language. Despite difficulties learning their native language, students with dyslexia are still required to learn a foreign language. It furthermore seems, due to the present status of the English language, students with dyslexia cannot afford not to learn English. This not only puts students with dyslexia in a difficult position, since their most difficult subject is also one they cannot avoid. It also puts them at a disadvantage compared to their non-dyslexic peers, since this difficult subject is often viewed as essential for success in later life.

The possibility, that students with dyslexia might be disadvantaged due to this emphasis on English is troubling. Especially considering dyslexia is the most common learning disorder (Reid-Lyon, Shaywitz, & Shaywitz, 2003; Cicchetti & Cohen, 2006). Estimates are that between 3 and 10% of the population in Western countries are affected by dyslexia (Cicchetti & Cohen, 2006; Menghini, Finzi, Carlesimo, & Vicari, 2011). In the Netherlands, the percentage of children diagnosed with dyslexia in primary education was around 8% in 2016 (CBS, 2016; Urff, 2019). When considering that most classes in secondary schools in the Netherlands have between twenty and thirty students (Regioplan beleidsonderzoek, 2016), this means an average of two students with dyslexia per class. That dyslexia is so common in classes, raises an interesting question: what is the position of dyslexia in the English as a Foreign Language (EFL) classroom?

1.2 - Literature overview

1.2.1 - Defining dyslexia

There are two general types of dyslexia, developmental dyslexia and acquired dyslexia. Acquired dyslexia, is often said to originate from brain injury, disease, or trauma (Matthews, 2014; Woollams, 2014). The term is applied to many reading disorders produced by brain damage (Castles & Coltheart, 1993). Whereas developmental dyslexia, "cannot be explained by an impaired intelligence, socio-economic factors, or other obvious causes like comorbid neurological conditions or a history of head injury" according to Carrion-Castillo, Franke, and Fisher (2013, pg. 215). It is this last exclusion, a history of head injury, that is generally used to distinguish developmental dyslexia from acquired dyslexia. Kuerten, Mota, and Segaert (2019), however, cautions against distinguishing between the two based on brain damage, as it "is not always indicative of acquired dyslexia" (pg. 251). Instead developmental dyslexia is experienced by a person from birth, it has been present throughout the language development phase. Acquired dyslexia, on the other hand, only begins after this phase. People with acquired dyslexia have acquired full reading capabilities, but suddenly lose this ability. And so, while this most commonly happens through brain injury, disease or trauma, that is not always the case. This study's focus is on developmental dyslexia, rather than acquired dyslexia. Therefore, when the term dyslexia is used, it refers to developmental dyslexia.

Similar to how dyslexia is divided into acquired dyslexia and developmental dyslexia, attempts have been made to identify different types of dyslexia. Dyslexia shows such a broad spectrum of problems, that it is difficult to classify all together. Zoccolotti and Friedmann (2010) state 17 types of developmental dyslexia had been identified and reported so far. Although they point out the number varies depending on the way they are counted, they are nevertheless similar to those identified in acquired dyslexia. One frequently cited study, Castles and Coltheart (1993), identified two distinct varieties. The first of these is characterised by "a deficit whole word recognition", while the second variety by a "deficit in letter-to-sound rules" (pg. 170). The distinction between these two varieties is made based on the processing level where the deficit is found. The first variety is caused by a deficit of the lexical procedure. The deficiency in the second variety, however, occurs on a sublexical level. Even though the majority of their subjects performed below average on both skills, they were "simply worse at one skill than the other" (pg. 171). However, more importantly, they found around a third of the subjects obtained a normal score for their age for one task, while

at the same time scoring much lower on the other task. Their results support the notion of a clear double dissociation, which made them conclude that dyslexia comes in different varieties.

A more in-depth listing of the different types of developmental is outside the scope of the present study. For the present study, it is only relevant that there are many different types of dyslexia, and that each type can have different problem-areas. The multiple varieties of dyslexia adds to its complexity, and makes remedial teaching more difficult. Nevertheless, there are certain aspects of dyslexia that are more often encountered; these will be discussed in section 1.2.2. So, while not every student with dyslexia has the same problems, there are still a number of problems that occur more regularly than others. Addressing these will likely benefit the majority of students with dyslexia. Where the methods do not prove beneficial, the instructor can then take a more individual approach to identify where a particular student needs help the most.

The complex nature of dyslexia has also made it difficult to formulate a universally accepted definition of dyslexia (Reid, 2009). The correct definition of dyslexia also depends on the context in which it is discussed. As Urff (2019) illustrates, the appropriate definition might be different when dyslexia is discussed in an medical context, compared to when it is discussed in an educational context. Since this study discusses dyslexia in an educational context, the discussed definitions are mostly relevant to that particular context.

An increased understanding of dyslexia also influences the definition of dyslexia. The definition provided by Reid-Lyon et al. (2003), for instance, differs from earlier definitions by adding an underlying cause to the symptoms: "...these difficulties typically result from a deficit in the phonological component of language...". Similarly, the DSM-5 definition by the American Psychological Association states, that dyslexia is "... characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities" (2013). On the other hand, an earlier definition by the British Dyslexia Association from 1996, lists the symptoms as: "...The symptoms may affect many areas of learning and function, and may be described as a specific difficulty in reading, spelling and written language" (Ott, 1997 as cited in Knudsen, 2012, pg. 7). When comparing these two definitions, the definition from the DSM-5 shows a more nuanced and in depth-view of the characteristics or symptoms of dyslexia, than the earlier definition by the British Dyslexia Association. The DSM-5 description of "accurate or fluent word recognition", is more detailed than a "specific difficulty in reading".

Differences between the definitions are occasionally also down to a difference in terminology. A definition by the Research Group on Developmental Dyslexia of the World Federation of Neurology, wrote "... [dyslexia] depends on fundamental cognitive disabilities, which are frequently constitutional in origin" (Ott, 1997 as cited in Knudsen, 2012, pg. 7). Whereas the British Dyslexia Association defined dyslexia as "[a] complex neurological condition", in Reid-Lyon et al. (2003) it is described as "a specific learning disability that is neurobiological in origin" (pg. 2).

Another notable difference in terminology has to do with the categorisation of dyslexia. Before the turn of the millennium, many studies group dyslexia together with other general learning disorders (Arries, 1999; Ganschow & Sparks, 1995; Ganschow, Sparks, & Javorsky, 1998). After that, however, studies started to categorise dyslexia as a specific learning disability (Reid-Lyon et al., 2003). This new categorisation is also used in the DSM-5, which lists diagnostic criteria for 'specific learning disorder', and only notes here that:

"Dyslexia is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with reading comprehension or math reasoning" (DSM-5, 2013).

This note shows the DSM-5 has opted for the broad categorisation, and possibly aims to gradually discontinue the term 'dyslexia'. Although studies still regularly use the term 'dyslexia' (e.g. Nijakowska, 2014; Pfenninger 2015; SDN, 2016; Bonifacci, Canducci, Gravagna, &Palladino, 2017; Anraad, 2018; Kuerten et al., 2019; Urff, 2019), the perception seems to have shifted over time. Where earlier studies discussed dyslexia as a disorder, sometimes grouping it together with other learning disorders, later studies more often discuss dyslexia as a particular sub-category of specific learning disorder. Dyscalculia, a similar disorder to dyslexia, is also listed as an alternative term for 'specific learning disorder' in the DSM-5.

So, while the definition of dyslexia might vary based on when it was developed or what the definition is intended to achieve, there are a number of core aspects of dyslexia that are relevant to the present study. These different aspects are best encapsulated by the definition from Reid-Lyon et al. (2003). "Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and / or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge" (Reid-Lyon et al. 2003, pg. 2).

This definition shows the classification of dyslexia as a specific learning disability, as well as highlighting its neurological aspect. Additionally, the definition not only highlights several common characteristics or symptoms of dyslexia, but also one of the underlying problems that cause these symptoms. The definition elaborates on these with several secondary problems that might occur due to dyslexia. Finally, the definition mentions two exclusion criteria.

When dyslexia is defined, it often includes certain exclusion factors. In order to accurately diagnose dyslexia, it is important to first rule out other possible explanations. This is included in the definition by Reid-Lyon et al. (2003), which states "...that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction". As discussed at the onset of this section, it should not be possible to explain dyslexia through "an impaired intelligence, socio-economic factors, or other obvious causes..." (Carrion-Castillo et al., 2013). Therefore, in order to diagnose dyslexia, it is important to first ascertain that other cognitive abilities are regular, i.e. no impaired intelligence. Similarly, if the person has received limited instruction on the alphabet, this might cause reading and writing problems which appear similar to dyslexia. Although, unlike dyslexia, this lack in instruction can quickly be remedied. While a more extensive list of the exclusion criteria associated with dyslexia can be found in the DSM-5, those in the definition by Reid-Lyon et al. (2003) are sufficient for the purposes of the present study.

<u>1.2.2 – Frequently encountered problems for people with dyslexia?</u>

As the various definitions already highlight, dyslexia is characterised by difficulties with written language, difficulties with spelling and reading are the most commonly encountered problems with dyslexia. Yet these difficulties only illustrate what dyslexia is on a superficial level; in a medical context they would be the symptoms of dyslexia. In order to better understand disorders, Morton and Frith (1995) proposed a causal model. This model is frequently applied when discussing dyslexia (Jackson & Coltheart, 2001; Kuerten et al., 2019). The model distinguishes three major levels to discuss dyslexia: behavioural, cognitive, and biological (Morton & Frith, 1995). This model argues that biological anomalies could lead to cognitive differences, which in turn manifests distinct behavioural performances. An example of the model, from Jackson and Coltheart (2001), is included in figure 1. This example postulated a prior genetic biological cause for a reading impairment. The behavioural level of the model is generally used by professionals to diagnose dyslexia, based on behavioural manifestations (Kuerten et al., 2019). The difficulties frequently used to characterise dyslexia, difficulties with reading and spelling, are examples of such behavioural manifestations. While such manifestations are useful for diagnostic purposes, they provide little information on the underlying problems of dyslexia.



Figure 1: Example of the causal model from Jackson and Coltheart (2001, pg. 15).

To understand what cognitive deficits may cause the observed language impairments, it is important to examine it at a deeper level. In the framework proposed by Morton and Frith (1995) the deepest level of explanation is the biological level (Jackson & Coltheart, 2001; Kuerten et al., 2019; Morton & Frith, 1995). This level looks at the neurobiological differences between "dyslexic and typically developing individuals" (pg. 254). This type of study has revealed certain neuronal abnormalities that seem to occur in individuals with dyslexia (Goswami, 2008; Hadzibeganovic et al., 2010; Kraft et al., 2016; Kuerten et al.; 2019; Müller-Axt, Anwander, & Kriegstein, 2017; Ramus, Altarelli, Jednoróg, Zhao, & Covella, 2018). Additionally, dyslexia has also been the focus of several gene-studies; which also falls under the biological level of explanation. This is because dyslexia has long been suspected to have a heritable nature, often aggregating in families (Carrion-Castillo et al., 2013; Cicchetti and Cohen, 2006; Kraft et al. 2016; SDN, 2016). Multiple studies have shown a connection between dyslexia and a number of genes (Carrion-Castillo et al., 2013; Kraft et al. 2016; Kuerten et al., 2019; SDN, 2016). Stichting Dyslexie Nederland states that, in the literature, fifteen genes are associated with dyslexia (SDN, 2016). While both fields have made substantial advances over the last few decades, there is still much left uncertain about dyslexia on a biological level. It is for instance, as of yet, not possible to accurately diagnose dyslexia through neuroimaging techniques. Similarly, when it comes to the genetic aspect of dyslexia, Carrion-Castillo et al. (2013) points out that, "important progress has been made, but the picture is far from complete" (pg. 216).

Between the behavioural and biological level is what Morton and Frith have called the cognitive level. They added this level because "an understanding of autism, at least, requires a third level between the biological and the behavioural" (Morton and Frith, 1995, pg. 357). This seems to apply to dyslexia as well, as they included the cognitive level in their analysis of dyslexia as well. Current theoretical explanations associate several deficient cognitive mechanics with dyslexia (Kuerten et al., 2019). The three more commonly referenced impairments are: a phonological processing impairment, an impairment in word-naming speed, and an impaired working-memory (Fischbach, Könen, Rietz, & Hasselhorn, 2014; Hatcher & Snowling, 2002; Kuerten, 2019; Kormos, 2017; Menghini et al., 2011; Nijakowska, Tsagari, & Spanoudis, 2018; Reid-Lyon et al., 2003; SDN, 2016).

While these cognitive impairments will each be discussed in more detail below, it is important to note that some researchers question their relevance to dyslexia. Huettig, Lachmann, Reis, and Petersson (2018), for instance, argues many cognitive impairments regularly associated with dyslexia, might not actually be linked to dyslexia. Instead it argues: "it is conceivable that a very large proportion of dyslexia research findings may simply reflect reduced and suboptimal reading experience" (pg. 343). The reason for this argument is, that the study also found many of the cognitive impairments associated with dyslexia among illiterate individuals. Similarly, Zoccolotti and Friedmann (2010) points out cognitive impairments do not necessarily manifest equally for all people with dyslexia. This is attributed to the different varieties of dyslexia discussed in section 1.2.1. So, while many studies definitively link these cognitive deficiencies to dyslexia, future research might show the connection to be more nuanced.

1.2.2a - Phonological processing impairment

The first cognitive aspect of dyslexia is a phonological processing impairment. The phonological processing impairment is generally considered to be the main cognitive impairment in dyslexia (Fischbach et al., 2014; Hatcher & Snowling, 2002; Kuerten, 2019; Kormos, 2017; Menghini et al., 2011; Nijakowska et al., 2018; Reid-Lyon et al., 2003; SDN, 2016). This is also included in Reid-Lyon et al. (2003)'s definition, which states the problems associated with dyslexia result from this impairment.

Phonological processing is a core ability in speech. Speech enables humans to combine and arrange a limited number of sounds, or phonologic segments, into an "indefinitely large number of words" (Reid-Lyon et al., 2003, pg. 7). An alphabetic transcription provides readers with the same ability. However, it only works if they are able to link an arbitrary character to the phonological segment it represents (Reid-Lyon et al., 2003). This requires an awareness that every word can be decomposed into specific phonologic segments. The phonological processing ability refers to this awareness, and it is this awareness, however, that seems to be largely missing in people with dyslexia (Reid-Lyon et al. 2003).

According to Hatcher and Snowling (2002), children with dyslexia, struggle to break words down into individual phonemes; unlike normally developing children. This difficulty in breaking down words to their fundamental components, they argue, makes it more difficult to learn new words; as "these mappings between orthography and phonology need to be made at a fine-grained level to ensure that novel words that have not been seen before can be decoded". Because of their phonological processing impairment, people with dyslexia are essentially trying to build a smooth road with cobblestones instead of asphalt.

1.2.2b - Word-naming speed

The second cognitive aspect of dyslexia is word-naming speed. Kormos (2017) describes word-naming speed as: "a reflection of individuals' ability to access, activate, and phonologically encode appropriate lexical representations under time pressure" (pg. 33). Word-naming speed is sometimes seen as an indicator of phonological processing impairment, but Stichting Dyslexie Nederland (SDN, 2016) argues that studies provide insufficient evidence to consider them part of the same cognitive problem. However, they also point out that the word-naming speed is more closely connected to reading-ability, than spelling-ability. So, for people who only show spelling-difficulties, the word-naming speed

might actually fall within normal values. This highlights the primary importance of a phonological processing impairment in dyslexia.

1.2.2c - Working memory

The last cognitive aspect of dyslexia is a working memory impairment. Kormos (2017) argues that working memory influences the word-decoding, and higher-order reading comprehension abilities. Working memory helps to keep read information active and updates it with new information. Monitoring comprehension of information, and drawing inferences based on background knowledge also relies on working memory (Kormos, 2017). Lastly it also plays an important role in executive functions such as attention control, helping to focus on main ideas and ignore distractions (Baddeley, 2000; Kormos, 2017).

This working memory impairment in people with dyslexia was observed simultaneously with a phonological processing impairment. Menghini et al. (2011) found the impairment in working memory for dyslexia was not only limited to dysfunctions of a phonological nature, but also involved dysfunctions of visual-object and visual-spatial information. Menghini et al. (2011) therefore hypothesised an underlying serial processing deficit for children with dyslexia. The age of the participants was between 8 and 14 years of age. They were unable to confirm this hypothesis due to the scope of their research. This hypothesis, as well as their other findings, were later confirmed by Fischbach et al. (2014) in a more extensive longitudinal study. This study found that children with literacy disorders have difficulties storing and manipulating phonological and dynamic visual-spatial information, while they have no visible difficulties with static visual-spatial information. The longitudinal study followed students from age 9 to 12. Fischbach at al. (2014) also showed that, although there was some shift within the memory impairments, overall children with literacy disorders retain their phonological impairment. The ability to store dynamic information was actually reported to reduce over time. The static visual-spatial information on the other hand, was not only found to remain intact, but actually showed signs of improvement around the age of eleven. These studies show that working memory is yet another cognitive ability that influences dyslexia. Thereby further reinforcing the understanding that dyslexia is a highly complex disorder affecting many different areas of brain.

1.2.2d - Cross-linguistic transfer

As many of the studies mentioned before (Hatcher & Snowling, 2002; Menghini et al., 2011; Fischbach et al., 2014) look at problems encountered in first language learning (L1), the question remains to what extent these problems are relevant when learning a second language (L2). One prevalent theory regarding L2 learning in general is that of the cross-language transfer process. This theory states that problems encountered during the L1 learning process will likely also be encountered during the L2 learning process. Sparks, Patton, Ganschow, and Humbach (2009) lists several studies that have found evidence in support of a general cross-linguistic transfer process.

The existence of cross-linguistic transfer in general, however, does not necessarily mean it also applies to dyslexia. Chung and Ho (2010), however, argues dyslexia-related problems are affected by cross-linguistic transfer. The study found that primary school students with dyslexia, between 9 and 11 years of age, encountered L2 learning problems which stemmed from linguistic coding and general processing problems in their L1. The children in this study had a variety of Chinese languages as their L1, whereas the L2 of the children in this study was English. In a similar study Palladino, Bellagamba, Ferrari, and Cornoldi (2013) found that, to some extent, difficulties in the L2 could be explained by difficulties in the L1; but not completely. The L1 in this study was Italian and the L2 was English. The participants were around 13 years of age. A follow-up study obtained similar results. Palladino, Cismondo, Ferrari, Ballagamba, and Cornoldi (2016) found that children with dyslexia had problems writing dictated L2 words, even when the words were highly familiar. The study compared a group of children with dyslexia, also around 13 years of age, to one with English learning difficulties as well as a control group. It found that both the group both groups scored poorer than the control group. However, unlike the group of children with English learning difficulties, the children with dyslexia mostly made phonological-type errors.

One notable difference between these studies is the participants' L1. Chinese languages use a completely different orthography to English whereas Italian and English use the same orthography, yet differ in their transparency. English is generally considered to have an opaque orthography where certain sounds do not clearly relate to a certain letter. For instance, the CH combination in the words *character* and *chat*. Both start with the letters c-ha, yet character is pronounced /'kær.ək.tər/, while chat is pronounced /tʃæt/. Italian on the other hand is a language with a transparent orthography, which means certain sounds are clearly linked to certain letters. Although empirical studies suggest transparent orthographies are acquired more easily than opaque ones (Landerl et al., 2013), the aforementioned studies seem to show that cross-linguistic transfer does occur. Dyslexia-related language problems encountered in the L1, are often also encountered in the L2. One question that is yet to be answered, however, is whether students who received training to help overcome their L1 problems, again encounter these problems during L2 learning or if they are able to apply their earlier training to the L2 as well.

In sum, the research identifies three main cognitive areas of difficulty as the cause of dyslexia. The impairments in phonological processing, word-naming speed, and working memory cause people with dyslexia to experience difficulties when reading and writing. Additionally, the research shows, it is possible for these difficulties to transfer to a new language.

1.2.3 - Teaching students with dyslexia

Because of the difficulties in phonological processing, word-naming speed, and working memory described in the previous section, it seems almost self-evident that students with dyslexia require help in their learning process. For instance, although typically developing students would implicitly learn the phonetic system of a new language, students with dyslexia struggle to do so. However, while various instruction-methods have been developed based on different theories regarding dyslexia, the most effective ones appear to be those "offering intensive phonological intervention" (Goswami, 2008, pg. 143). An example of one such method is the Multi-sensory Structured Learning (MSL) method.

In the MSL method linguistic concepts are taught explicitly, to assist learners in identifying language regularities and exceptions (Pfenninger, 2015; Schneider & Kulmhofer, 2016). Similarly, it promotes a sequenced learning approach in which concepts are broken down to their most fundamental components. The most basic components are taught first, followed by a gradual increase in difficulty; all the while stressing the link to the previous material (Reid, 2009; Schneider & Kulmhofer, 2016). To improve learning even further, the method employs a multisensory approach, "with simultaneous integration of visual, auditory, tactile (touch) and kinaesthetic (movement) learning" (Schneider & Kulmhofer, 2016, 6). Finally, the method underlines the importance of frequent repetition (Schneider & Kulmhofer, 2016), as "[s]ystematic and recurrent practice provides the most welcome results, while long intervals tend to bring about partial or total regress" (Nijakowska, 2010, pg. 123).

Ganschow et al. (1998) argues that the MSL approach as proposed by Orton-Gillingham is an effective teaching method for at-risk students. In an earlier paper, Ganschow and Sparks (1995) describes at-risk students as students with identified learning disabilities and students who experience difficulties but have no identified learning disability. Since dyslexia was, at the time, still considered a general learning disorder, it is among these at-risk students.

Multiple studies have shown the effectiveness of the MSL method for native language learning as well as foreign language learning (Ganschow et al., 1998; Nijakowska, 2010; Pfenninger, 2015). In a longitudinal study Sparks et al. (1998) even found at-risk students managed to achieve comparable foreign-language proficiency levels as their not-at-risk peers. Pfenninger (2015) also argues the effectiveness of the MSL method for learners with dyslexia; both for L1 and L2 learning. Dal (2008) states the MSL method can also be beneficial when it comes to vocabulary learning. Sparks and Miller (2000) argue the MSL method has been proven to help students with dyslexia in terms of phonology, orthography, and vocabulary learning. As a disclaimer they state, however, that at the time research had only investigated the MSL method in combination with learning so-called 'transparent languages'. However, as transparent languages are easier to learn for students with dyslexia (Landerl et al., 2013) the method should be even more effective for opaque languages, such as English. In line with this hypothesis, multiple studies have since shown the effectiveness of the MSL method for EFL learning (Dalla Libera, 2016; Pfenninger, 2015; Schneider & Kulmhofer, 2016).

The MSL approach is beneficial to those with dyslexia, because the explicit instruction helps them overcoming their cognitive impairments. For instance, teaching individual sounds in a new language, rather than entire words, helps these students to overcome their phonological processing impairment. Similarly, the multisensory aspect allows students to offset any limitations in other learning channels. A multisensory approach can be achieved with the use of: materials with clearly visible syllable distinctions, auditory pronunciation examples, or other visual markings such as pictures to clarify lexical meaning (Knudsen, 2012). Some additional MSL-based approaches are using: drills, word lists and phrases, oral reading selection, and spelling of phonetic and non-phonetic words (Henry, 1996, 2003, from Reid, 2009). The multisensory approach can be aided by the use of: materials with clearly visible syllable distinctions, auditory pronunciation examples, or other visual markings such as pictures to clarify lexical meaning (Knudsen, 2012).

<u>1.2.4 - Dyslexia in the EFL classroom</u>

In order to ensure students with dyslexia can benefit from methods such as the MSL method, it is important that language teachers are well trained on how to help students with dyslexia. If the teachers are trained on how to help students with dyslexia, they can help ensure the students receive the same quality of education as their peers. Unfortunately, however, presently this does not seem to be the case. It seems teachers receive very little training on dyslexia, or how to help these students effectively.

Multiple studies have shown, that teachers are often insufficiently trained to help help students with dyslexia (Knudsen, 2012; Nijakowska, 2014; Kormos & Nijakowska, 2017; Nijakowska et al., 2018; Anraad, 2018). Knudsen (2012) found that all six of the participating teachers believed students with dyslexia should receive specialised teaching, yet all but one expressed feeling unsure on how to do that exactly. The teachers reported developing their own strategies, talking to special education teachers, and learning about strategies at courses, yet the majority of them felt this was not sufficient and they needed to learn more in order to properly help students with dyslexia. On this topic Nijakowska (2014) argues that foreign language teachers often lack sufficient understanding of dyslexia to effectively teach dyslexic students. Nijakowska believes that the cause for this inability is often found in both the preservice and in-service teacher training they receive. She argues that, although one might expect that learning how to deal with students with dyslexia would be "an integral part of preand in-service foreign language teacher training", the availability of such training "seems to be extremely limited" for student teachers and practicing foreign language teachers across Europe (Nijakowska, 2014). According to Nijakowska (2014), this lack of instruction is even more problematic since self-study is difficult for teachers. She argues teachers can often get confused when looking up information on their own due to the large amount of confusing or even contradictory evidence presented online. In an attempt to help prevent confusion and contradictory evidence, a list of several useful Dutch websites on dyslexia has been included in appendix H. The teachers' self-reported doubts about their own capabilities when it comes to teaching students with dyslexia in Knudsen (2012) were also found in the participating teachers in Nijakowska (2014) and Nijakowska et al. (2018). All three studies report teachers show willingness to incorporate inclusive teaching for students with dyslexia but at the same time they report feeling unsure on how to implement this type of teaching effectively.

In a similar study by Anraad (2018) looking into differentiation for students with dyslexia in Dutch schools, the participating teachers indicated that they would also like to

know more about methods and tools to help dyslexic students more individually within the possible timeframe. At the same time, however, Anraad found that teachers in the Netherlands generally do very little to help dyslexic students during their lessons. Despite the teachers grading themselves positively for the help they provide to dyslexic students, with an average of 6.4 out of 10, the questionnaire given to dyslexic students shows that "[the teachers'] intentions do not always come across". Anraad also found that the majority of teachers do little to help dyslexic students during their lessons. It found that teachers generally only differentiate between dyslexic and non-dyslexic students when it comes to testing, not to teaching (Anraad, 2018). During tests dyslexic students are often given extra time, or special grading systems for spelling mistakes (Anraad, 2018). This aligns with the findings of Kohnstamm instituut (2011), which found that most teachers often only follow the recommendation of the Dutch dyslexia protocol by Henneman, Kleijnen, and Smits (2004) in regard to testing and grading, but not during their teaching. Appendix H includes a URL to the 'dyslexie centraal' website, where the Dutch dyslexia protocol for secondary education is freely accessible.

A number of studies have also looked into teacher attitudes towards dyslexia and how their teaching experiences can affect these attitudes. Nijakowska et al. (2018) found that factors such as personal involvement in inclusion activities, and direct contact and teaching experience with students with dyslexia, seemed to boost teachers' acceptance and understanding of dyslexia, and even their self-confidence when employing inclusive teaching. It also found that the teachers' type of experience with dyslexic EFL learners shapes the perception of teacher preparedness to include them successfully. Kormos and Nijakowska (2017) demonstrated the effectiveness of relatively short online courses in improving attitudes and self-efficacy beliefs, as well as lower concerns about inclusion. This means the reported feeling of inadequacy in the previously mentioned studies can be addressed by specialised training for teachers. Unfortunately, as Pfenninger (2015) and Nijakowska (2014) argue, this type of training is often not included in teacher-training programmes in most countries in Europe. Anraad (2018) also remarks a lack of dyslexia-specific training among its participating teachers. This suggests the situation, as described by Pfenninger and Nijakowska, likely also applies to the Netherlands.

1.2.5 - Dyslexia and student motivation

One final aspect of dyslexia, which is relevant when discussing it in the context of foreign language learning, is motivation. Motivation is an important factor in language learning (Csizér, Kormos, & Sarkadi, 2010). One would expect, however, that dyslexia might negatively affect a student's motivation to learn new languages. Luckily, previous studies have eliminated the need for assumptions by investigating whether motivation is influenced by dyslexia.

One case study, Dimililer & Istek (2018), looked into the type of difficulties students with dyslexia encountered during EFL classes. The participant in the study was interviewed long after leaving school, as the participant was 37 at the time of the study. According to Dimililer & Istek (2018) as a student, the participant was motivated to learn English. The participant recalls feeling excited about learning English because her parents were so proud of her for learning English. Especially her father's praise and effort in helping her learn English made her eager to learn it. The researchers also note the student "never felt inferior or blamed herself. She had positive self-perceptions…".

According to other studies, however, this reported positivity towards English seems somewhat exceptional. Piechurska-Kuciel (2008) found that students with dyslexia suffer from significantly higher levels of anxiety when learning a new language. Especially when these students had previous experiences of failure in learning foreign languages. Kormos and Csizér (2010) also found lower levels of motivation and a more negative attitude towards language learning among their participants with dyslexia compared to those without. Csizér et al. (2010) divides motivation into several categories, these categories can be labelled as either internal incentives or external incentives. External incentives are reasons for learning a language that come from a student's surroundings. For instance, societal requirements, school requirements, or parental expectations. Internal incentives on the other hand is an innate curiosity or internal willingness to learn a certain language. In its study, Csizér et al. (2010) found that while both students with and without dyslexia tend to have external incentives when it comes to learning English, students with dyslexia are more likely to lack any internal motivation. Csizér et al. (2010) further reports that some of the participants with dyslexia had feelings of anxiety or inadequacy when learning English, because they felt they could not keep up with their peers or were unable to meet their parents' expectations.

In order to prevent feelings of inferiority, inadequacy, and anxiety, the dyslexia protocol for Dutch secondary schools (Henneman et al., 2004, Henneman, Bekebrede, Cox,

& Krosse, 2013) advises teachers to ensure their dyslexic students' motivation remains high. They advise teachers during the first months of secondary school avoid handing out very deep fails to students with dyslexia. Handing out deep fails can lead to a defeatist attitude which is absolutely detrimental to the learning process. Instead Henneman et al. (2004) advises teachers to hand out near-fails (between a 5 or 5.5 out of 10 in the Dutch educational system) in order to show the students that they're knowledge is insufficient, but at the same time avoid the feelings that they are already immensely far behind and will not be able to catch up. In addition to this Henneman et al. (2004) advises the teachers to clearly communicate to the students that they are not alone in their learning process, that the teacher will guide them through it and that together it is definitely possible to achieve passes for the course. Furthermore, they should open a dialogue with the student in which the student will feel comfortable to express their needs and wants for the course. Not all dyslexic students have the same difficulties and it is therefore important for the teacher to discuss with each student what they feel would help them (Henneman et al., 2004). Similarly, Hornstra, Denessen, Bakker, Bergh, and Voeten (2010) found that students with dyslexia are at risk of stigmatisation in the language classroom and therefore warns that teachers should be mindful of the way they interact with students with dyslexia in the classroom, since it might unintentionally negatively affect those students.

And so, while the participant in Dimililer and Istek (2018) is undoubtedly not unique in her positive attitude towards English and her lack of anxiety in language learning, the findings by Csizér et al (2010) and Piechurska-Kuciel (2008), as well as the extensive recommendations on the subject by Henneman et al. (2004) as well as those by Hornstra et al. (2010), show that it is important to be mindful of the motivation and anxiety of students with dyslexia when it comes to foreign language learning and to provide them with a safe learning environment, because as Henneman et al. (2004) argues, once a negative mindset is developed for the student, it is difficult to turn this around.

1.3 - Problem (RQ)

As illustrated in the literature overview, the understanding of dyslexia's underlying problems continues to improve. Furthermore, special methods have been developed to help students with dyslexia. Yet it also shows, that despite this increase in knowledge on dyslexia, one essential group of professionals remains remarkably un-informed on this topic. The data from several studies suggest, that foreign language teachers are often not aware students with dyslexia have special needs. Nor are they taught how to help students with dyslexia effectively. The aim of this present study is to look look at how English as a Foreign Language teachers in the Netherlands regard dyslexia. In order to determine this, the study will employ a three-pillar approach.

The focus of the first pillar is on teacher-training, which will evaluate whether teachers are trained on dyslexia, and on how to help students with dyslexia effectively. Since the literature suggests teachers are presently not happen, the study will also try to establish whether teachers would be interested in this type of training. It will also look at possible differences in dyslexia-training between certified teachers and teachers-in-training, in case training programmes have only recently started to include this in their curriculum. This aim leads to the following research question and sub-questions.

- 1. In what way are EFL teachers in the Netherlands trained to help students with dyslexia in their language learning process?
 - a. What needs do those teachers express in terms of training on the subject of dyslexia?
 - b. What differences are there between the current teachers and teachers in training in terms of training they received on the subject of dyslexia?

The expectation is that neither type of teacher has received substantial training on dyslexia. Additionally, they are expected to be mostly positive towards more extensive training on dyslexia. These expectations are largely based on the findings from Nijakowska (2014) and Andraad (2018).

The second pillar focusses on teacher self-perception and attitudes. It will aim to establish whether the teachers feel confident when teaching students with dyslexia. It will also establish whether the teachers feel they have sufficient knowledge to effectively help students with dyslexia. Finally, it will try to gage teacher-attitudes with regard to inclusive teaching; in other words, whether teachers feel the curriculum should be adapted to better suit students with dyslexia. The following research question and three sub-questions have been written to encapsulate this second aim.

- 2. Do EFL teachers in the Netherlands feel capable and willing to teach students with dyslexia?
 - a. Are they confident in their abilities to teach students with dyslexia?
 - b. How do they perceive their knowledge on dyslexia as well as their ability to teach students with dyslexia?
 - c. Are they willing to provide inclusive teaching in order to better help students with dyslexia?

The expectation is that teacher confidence will be low when teaching students with dyslexia; due to the hypothesis from the first research question, that predicted that teachers receive little training on how to help students with dyslexia. This first hypothesis also leads to the expectation that teachers feel they need more training on dyslexia. Yet, the study will probably reveal that teachers are willing to provide inclusive teaching. This last expectation is based on the findings in Anraad (2018).

The third and final pillar's focus is on teaching practices. This pillar looks at how teachers change their teaching practices to account for with dyslexia in their classes. To do so, the study will first determine whether teachers regularly encounter dyslexia. Next it aims to establish whether teachers employ specific strategies to help students with dyslexia during the learning process. Additionally, it will determine whether they differentiate between students with and without dyslexia in the testing process. And lastly, it will also assess what obstacles teachers encounter when teaching students with dyslexia. This overall aim leads to the following research question and four sub-questions.

- 3. How do EFL teachers in the Netherlands adapt student interactions to cater for dyslexia?
 - a. What experience do they have in terms of teaching students with dyslexia?
 - b. Do they employ specific strategies in their lessons to help students with dyslexia during the learning process?
 - c. In what way do they differentiate between students with dyslexia and without, when it comes to language testing?
 - d. What difficulties do they encounter when teaching students with dyslexia?

The expectation is that dyslexia is relatively common in Dutch EFL-classrooms due to average classroom sizes and diagnosis percentages (CBS, 2016; Urff, 2019; Regioplan beleidsonderzoek, 2016). The hypothesised lack of dyslexia-specific-training from the first pillar, as well as the findings by Anraad (2018), leads to the expectation that teachers probably do little to help students with dyslexia during the learning process. Based on Anraad (2018), the teachers are expected to use some differentiation during the testing process. A lack of training is expected to be the main difficulty encountered by the teachers when trying to help students with dyslexia.

The three-pillared approach was selected to provide a well-rounded perspective on the issue. By approaching the topic from different angles, the study hopes to provide an encompassing representation of the teachers' point of view on this issue. However, this broad approach also means it will not be able to go in-depth on each topic. Nevertheless, it has aimed to add nuance to the issues it discusses. The next chapter will discuss how this has tried to strike a balance between encompassing and nuanced.

2. Methodology

This chapter will outline of this study's methodology. The first section describes the methods of data collection. It will detail how they were developed, as well as discuss some relevant considerations this development. The section is divided into two parts. The first part focusses on the questionnaire and the interviews are covered in the second one. The second section provides some general demographic information on the participants who took part in the study. The third section outlines the study's procedure for gathering participants. It will also discuss some of the choices faced during this recruitment period. The final section in this chapter will outline the method used to analyse the data. A brief justification for the analysis is also included in this section.

2.1 - Instruments

This study initially intended to employ a combination of two data-collection methods: a questionnaire and an interview. The questionnaire was picked to collect quantitative data, which would be used to answer the research questions. The interviews aimed to collect qualitative data. The qualitative data would be used to help interpret the quantitative data. Additionally, the interview would allow the teachers to elaborate or explain their answers more extensively than a questionnaire would. Since closed questionnaires constrain which answers respondents can give, they run the risk of obtaining false data (Borg, 2015). Interviews would reduce this risk, by enabling respondents to raise any topics and provide their own unique answers. Despite its usefulness, it was uncertain how many participants would be willing to take part in the interviews. In order to collect at least some quantitative data, a few open questions were added to the questionnaire. The interview swill be discussed in the final paragraph of section 2.1.2.

2.1.1 - The questionnaire

The development of the questionnaire was influenced by a number of factors and consideration. This section provides an account of the more noteworthy ones involved in this process. First the more general aspects of the questionnaire will be discussed. This is followed by a more in-depth discussion of each individual part of the questionnaire.

The questionnaire was adapted from the questionnaire used in Nijakowska (2014). Check and Schutt (2017) argue there is a risk of adding non-essential questions or fail to include essential ones, when developing research instruments. According to them these risks can be reduced by using questions from previous studies, since those have already been used before (Check & Schutt, 2017). In an attempt to avoid including irrelevant questions or missing relevant ones, the present study adapted its questionnaire from the one used in Nijakowska (2014). Due to the scopes of both studies not overlapping completely, however, certain changes had to be made to the source material. These changes will be included in the discussion of the relevant part of the questionnaire. The changes aimed to not only maintain relevance to the overall scope of the study, but also to ensure the questionnaire was relevant to the participants taking part in this study. While making changes to the questionnaire meant the risks mentioned earlier would also increase again, it was probably not to the same extent as a newly created questionnaire. The new questionnaire is listed in Appendix A in its entirety.

A number of pretesting methods were employed to improve the questionnaires effectiveness. According to Check and Schutt (2017), pretesting is another useful method to increase a survey's effectiveness. It helps to ensure the questions are clearly formulated so the participants understand what is expected of them, and will prevent participants becoming confused while filling in the questionnaire. The questionnaire was first pretested by having the supervisor as well as a number of acquaintances review it. Having other people review the work helps to ensure clarity (Check & Schutt, 2017). Once it was deemed satisfactory, it was sent to two primary school teachers, once again acquaintances. This was done to ensure none of the questions were unclear, and if anything needed more explanation. Even though primary school teachers are not part of the study's intended population, they are educational professionals in their own right and therefore worthwhile for this pretest. Additionally, their inexperience with linguistic terminology meant that their understanding of the questionnaire would be a good indicator for whether the less experienced pre-service participants would also understand the questions. Because the primary school teachers are not part of the intended population, their responses were not analysed using statistical means. Instead their feedback was used to improve the questionnaire. There was no secondary stage of pretesting with a sample of the intended population.

During the development process one of the pretesters pointed out that teachers might become confused about which students they should count as having dyslexia. In order to prevent this type of confusion a statement was added to the questionnaire's introduction. It stated that: "[f]or the purposes of this questionnaire a student can be considered as being dyslexic, when they have been tested for and diagnosed with dyslexia" (Appendix A). This would hopefully clarify to teachers that students they believed might have dyslexia, but who hadn't been tested for it yet, should not be included. While this type of student is also an interesting group to investigate further, it falls outside the scope of this study and was therefore excluded in this case. The statement therefore restricts students with dyslexia to only those diagnosed with it. The Dutch government requires an official diagnosis in order for students to access special accommodations (Ministry of Education). Consequently, teachers will likely know which students have been diagnosed, based on which students are allowed special accommodations due to their dyslexia.

In order to avoid any missed responses, certain questions were made obligatory. When administrating a questionnaire, one commonly encountered problem is that participants sometimes skip questions. All questions in part A, as well as the scale questions in part B were marked as obligatory to prevent this from happening. The open questions, on the other hand, were not made obligatory. This includes the questions in part C, as well as the open question in part B. These were left optional to keep the questionnaire at a manageable level, since answering open questions takes more time than answering multiple choice questions. The choice, whether to take this time or not, was therefore left to each individual respondent. With regard to obligatory questions it is probably pertinent to note the participants had been made aware, in both the introductory letter and the introduction to the questionnaire, that their participation was completely voluntary. The participants were instructed that, should they wish to do so, they could withdraw their participation at any time by closing the questionnaire. Additionally, the instructions explicitly stated their data would not be recorded if they left the questionnaire before submitting it. So, although certain questions were obligatory to complete the questionnaire, the participants were made aware that they were in no way obligated to complete the questionnaire itself.

The questionnaire's three-part layout was based on the one used in Nijakowska (2014). The first two parts served the same general purpose as those in the original. This meant that, while certain questions had to be rephrased, the overall structure of the questionnaire could remain the same. The third part in Nijakowska (2014), on the other hand, had a different scope from the one in the present study. This meant the section had to be changed completely, and new questions had to be developed. The following paragraphs will provide a more in-depth discussion for each part.

2.1.1a - General questions

The first part of the questionnaire, part A, aimed to collect general information about the participants. It collected demographical information such as age, teaching experience, and completed education. While some questions were kept largely identical to those in Nijakowska (2014), others were adapted extensively or even replaced completely.

A number of prerequisites were created for participation in the new questionnaire. While the prerequisites are discussed in section 3.2, two of them are relevant in this discussion. One prerequisite restricted participation to secondary school teachers, which made the first and third questions redundant. These questions were therefore omitted. The second prerequisite restricted participation to teachers who teach in the Netherlands. This prerequisite made the fifth and sixth questions superfluous. Consequently, these two questions were merged and rephrased to have a national scope instead of an international one. The question was kept in this form to review whether the participants taught all over the Netherlands, or just in a certain part of it. Three other questions, on gender, age, and completed education, were added to this section. These were added to obtain additional demographic information on the participants, rather than to make between-group comparisons.

The second question in the Nijakowska questionnaire, on teaching experience, was given an extra answer option. This option was added to account for pre-service teachers; a group of participants not included in Nijakowska (2014). Due to the low number of respondents who selected this option, however, the answer-options were changed back after the questionnaire was closed. This is discussed further in the participants section of this chapter.

The last noteworthy change, made to part A, was made to question four. For this question some of the answer options were removed. This was done because they were considered to be irrelevant for secondary school teachers in the Netherlands. It was further pointed out, during the pretesting phase, that the remaining answer options were open to interpretation. Questions, which are open to interpretation, can confuse respondents as to which answer is most applicable to them. In order to reduce the likelihood of this occurring, percentages were added. These would differentiate the answers more distinctly, making it easier for the respondents to select to relevant ones.

2.1.1b - Scale questions

Part B was the core of the questionnaire, and consisted of twenty-one questions. Twenty Likert scale questions with a 5-point scale, and one open question. Once again, the questions from Nijakowska (2014) were used as the starting point in the new questionnaire. Questions that did not match the scope of the current study were omitted from the list. New questions were then devised bringing the overall number to twenty. The number twenty was chosen, to keep the questionnaire at a manageable length for the participants, while at the same time provide sufficient data to help answer the research questions.

During the process of devising new scale questions, special attention was payed to clarity and understandability. When it comes to writing clear and understandable questions Check and Schutt (2017) particularly warn against the use of negating questions, and doublebarreled question. The use of negation words, and double negatives even more so, can confuse participants about which answer is the right one for them. The scale questions therefore did not include any double negative questions at all. Negation words, such as don't and not, were also avoided as much as possible. In questions 9 and 19, however, they could not be avoided. In these questions the negative word was visually emphasised. The other type of problematic question, the double-barreled question, actually asks two questions at once. This means the results are uninterpretable. As an example, Check and Schutt (2017) give the sentence: "[d]o you support increased spending on schools and social services". When people disagree with this statement, it is impossible to know whether they disagree with both or just with one of them (and if so, which one). The use of double-barreled questions was therefore also avoided in the questionnaire. However, while analysing the results, question 17 was found to be partly double-barreled. What this means for the study, is discussed in chapter 4.2.2.

Social desirability is another important consideration to keep in mind while writing questions (Check & Schutt, 2017, Washburn, Joshi, & Binks-Cantrell, 2011, Hornstra et al. 2010). Check and Schutt (2017) describe social desirability as the "tendency for individuals to respond in ways that make them appear in the best light to the interviewer". They argue this is especially influential when inquiring after illegal or socially disapproved behaviour. Social desirability can be counterbalanced by writing a question that makes it seem more acceptable to give the other answer (Check & Schutt, 2017). In the present questionnaire this was applied to questions 9 and 19 (appendix A). Question 9 was added to provide an opposing view to earlier questions. It described an attitude that teachers might hold, yet might consider socially unacceptable. An argument was therefore added to the question, to make

agreement seem more acceptable (Check & Schutt, 2017). The same method was applied to question 19, which might also be considered a socially unacceptable opinion. This consideration on social desirability is also the reason these two questions used negative words, contrary to the consideration in the previous paragraph.

The scale questions were grouped together based on the overall theme behind the questions. The questions were divided into three groups, each representing one of the main research questions. Questions 1, 3, 5, 6, 7, and 9 corresponded to research question 1. Research question 2 was investigated using questions 11, 12, 16, 17, 19, and 20. Finally questions, 2, 4, 8, 10, 13, 14, 15, and 18 were linked to research question 3. As the numbers of the questions already illustrate, they were not presented to the participants in a grouped manner. Instead the questions were presented in a different order, which created a more logical progression for the participants. An additional reason for altering the order of questions, was to avoid listing opposing or similar questions right next to one another, which Check and Schutt (2017) argue could lead to context effects. Context effects occur when one or more questions influence how subsequent questions are interpreted (Check & Schutt, 2017; Schober, 1999). The final order of the questions, as presented to the participants, was therefore a balance between retaining a logical progression to avoid confusion among respondents, and separating related questions to avoid context effects.

Part B also included one open question. Originally the open questions were planned to all be in part C. The question was moved to part B, however, because it asked for additional thoughts or responses to the scale questions. This was done because the online format of the questionnaire presented each section separately. It was therefore deemed more practical, for the participants, to have this question next to the twenty scale questions. This way the participants would not be required to switch back and forth between the different parts to answer the open question. Because the open question was the only non-obligatory one in part B, it was rephrased to explicitly communicate its voluntary nature to the participants.

2.1.1c - Open questions

There were 5 open questions in part C. The questions in part C had to be newly developed. The questions in Nijakowska (2014) could not be converted because they did not match the aim of this present study. The first three questions aimed to gather additional qualitative data to help interpret the quantitative data. The fourth question inquired whether the participants were willing to participate in the interviews. A fifth question was added to let participants express interest in being informed of the findings of the present study. Since questions four and five both asked participants to leave their email address, the results for these questions were not included in the data. This was done to ensure the privacy and anonymity of the respondents.

2.1.2 - The interview

Initially this study intended to employ interviews as a secondary data collection method. A methodology handbook on qualitative research (Boeije, 2016) was used as a guideline during the preparation process.

The first step in preparing the interviews was selecting the underlying structure of the interview. For the purpose of this study a semi-structured interview was considered most effective. Boeije (2016) lists four criteria used to determine the type of structure. These criteria are: content, wording, question order, and answer options. The amount of preparation given to these four criteria determines whether the interview is structured or non-structured. When the interview is prepared using a series of questions or topics the interview is semi-structured (Boeije, 2016). The content of the interview, the wording of the questions, as well as the question order are prepared beforehand, but not fixed. By preparing the interviews beforehand they would be helpful for the study, while simultaneously providing participants the opportunity to raise topics they find important on this issue. A semi-structured interview is therefore able to bring topics to light that might otherwise have gone unnoticed.

In order to prepare the questions or topics of discussion beforehand, a topic list was created. Topic lists, as the name suggests, list a number of general questions or topics as an overall guide through the interview. It can also include possible follow-up questions or example answers. The follow-up questions can be used to encourage interviewees to provide additional information. The example answers are meant to help participants on their way, in case they are uncertain how to interpret the question or what type of answer is appropriate. The questions, topics, and example answers are guidelines aimed at preventing stagnation, rather than a set of instructions which have to be followed to the letter. In addition, they help the interviewer to keep the interview on-topic.

The topic-list's design was based on an example shown in Boeije (2016). The example was used for the layout of the topic list. The example questions were an unsuitable form of inspiration for the present study, because the example was taken from a study by Van der Velden and El Emam (2013). The study differed too much from this study, however,

which meant the questions themselves were of no use. New questions therefore had to be developed. When it comes to developing new questions, Boeije (2016) first advises to turn the research questions into focus points or specific questions. The next step, according to Boeije, is to ensure every question or focus point has relevance to the research questions. This double check reduces the likelihood of having irrelevant or superfluous questions or topics on the list. The topic-list is listed in Appendix D.

Gordon's (1998) three criteria for evaluating responses would be used, to evaluate an answer's relevance during the interview. the semi-structured setup allows participants to introduce new topics might be advantageous, yet this also means there is a possibility the interview digresses to unrelated and irrelevant topics. To prevent this, the interviewer should evaluate each answer and judge whether it is relevant to the present study. This does not mean the interviewer makes moral judgements about the respondent's opinions, but only compares the answer to the objectives of the interview (Gordon, 1998). Evaluating an answer is best done during the interview, rather than afterwards, so the interviewer can still steer the conversation back on track. Gordon lists three criteria to evaluate the relevance of a given answer (Gordon, 1998; Boeije, 2016). The first criterium is whether the information in the response is relevant to the purpose of the interview (Gordon, 1998). The second criterium is whether the answer is complete (Gordon, 1998). Even though an answer is relevant, it does not mean it contains all the necessary information. It is therefore important to check whether the answer is complete. If this is not the case, the interviewer should ask follow-up questions until the answer is complete. The final criterium is validity. This criterium states that in order for the response to be valid it has to be true (Gordon, 1998). While it is possible that a respondent might be deliberately misleading the interviewer, it is also likely the respondent is unaware they are not telling the truth. Respondent's reported observations might be distorted by strong prejudices, memories might have faded over time, or they might be misinformed on an issue and take this misinformation for fact (Gordon, 1998). Gordon also warns that, occasionally, respondents withhold information because they feel it might shock the interviewer (1998). Which seems closely connected to the concept of social-desirability discussed in section 3.1.1. Using Gordon's three criteria can help prevent missing-data by posing follow-up questions right away. It can also help distinguish between irrelevant digressions and useful newly raised topics. By applying these criteria, the chances of obtaining irrelevant data is reduced.

In the end the interview part of the study was cancelled due to the low number of participants willing to take part in the interviews, as well as time constraints. At the end of the questionnaire, the participants almost unanimously indicated they were not interested in an interview. Occasionally the refusal was accompanied by an explanation for this reluctance. The most frequent explanation was a lack of time. Initial preparations for the interviews took place simultaneously with the development of the questionnaire. The topic list was meant to be fine-tuned based on the data from the questionnaire, which would allow the interviews to focus on topics highlighted by the questionnaire and in need of further explanation. Once the data from the questionnaire had been analysed and the interviews could be adjusted, however, the summer holidays were in full swing. This combined with the low number of willing respondents made the interviews an inviable option. The open questions at the end of the questionnaire are therefore the only source of the quantitative data.

2.2 - Participants

The questionnaire was completed by 47 participants. There were no incomplete responses (where participants started on the questionnaire but did not finish it) or missing answers for any questions other than the optional ones. It was therefore not necessary to exclude any responses from the questionnaire. The number of analysed responses is therefore also 47. It is difficult to estimate how many participants received the questionnaire, due to the employed recruitment methods. The recruitment methods are discussed in section 2.3.

In order to ensure a relevant participant group, a number of prerequisites were added to the questionnaire. The first prerequisite was that the participant should either be a certified English teacher, or study to become a certified English teacher. The second prerequisite was that they had to teach at a secondary school (Dutch: middelbare school), or study to become a teacher at a secondary school. The final prerequisite was that they do so in a Dutch setting. A separate prerequisite was added for the pre-service teachers. This prerequisite required them to have at least some experience teaching English, for instance through internships. This prerequisite was added so all participants could answer questions from personal experience rather than provide hypothetical answers. The following text was included in the introductory statement at the start of the questionnaire (Appendix A), which encapsulated these prerequisites:

"In order to participate in this study you need to either:

- be a teacher of English at a secondary school (middelbare school) in the Netherlands.
- study to be a teacher of English at a secondary school (middelbare school) in the Netherlands, and have at least some (internship)experience with teaching English."

A similar text, in Dutch, was included in the recruitment message (Appendix F). Stating the prerequisites twice, once in English and once in Dutch, would hopefully ensure participants would notice them. Nevertheless, it was left to the participants' own discretion to determine whether they met these requirements.

The participants were asked a number of questions to collect some general demographical information. The results of the first of these questions shows that, 42 respondents answered female (89.4%), 5 selected male (10.6%), and none identified as other. The results for this question are listed in table 1.

<u></u>		
Question: I am	Frequency (f)	Percentage (%)
Female	42	89.4
Male	5	10.6
Other	0	0.0
Total	47	100%

Table 1: Frequency distribution for general question 1

Four age groups were listed to determine the general age of the participants. The largest age group was 'between 26 and 35 years of age' which twenty participants (42.6%) selected. Six participants (12.8%) answered '25 years or younger', making it the smallest age group. The groups 'between 35 and 45 years' and '46 years and older' were chosen by eleven (23.4%) and ten (21.3%) participants respectively. Table 2 shows the frequency distribution for this question.

Table 2: Frequency distribution for general question 2

Question: My age is	Frequency (f)	Percentage (%)
25 years or below	6	12.8
26-35 years	20	42.6
35-45 years	11	23.4
46 years or above	10	21.3
Total	47	100%

Table 3 shows the frequency distribution for the third question. Twenty-six participants (55.3%) selected 'bachelor's degree', and nineteen (40.4%) chose 'master's degree'. Under the 'other' option, one participant (2.1%) answered 'PhD' for their highest level of completed education. One participant (2.1%) wrote 'Havo diploma', which is a type of Dutch secondary school diploma. This last participant is likely a pre-service teacher studying to obtain their bachelor's degree.

Question: My highest level of completed education is	Frequency (f)	Percentage (%)
Bachelor's degree (or its equivalent)	26	55.3
Master's degree (or its equivalent)	19	40.4
Other - PhD	1	2.1
Other - Havo diploma	1	2.1
Total	47	100%

Table 3: Frequency distribution for general question 3

Forty participants (85.1%) were certified teachers (i.e. in-service), while seven participants (14.9%) were training to be English teachers (i.e. pre-service) as can be seen in table 4.

<i>Table 4: Frequency distribution for general question 4</i>		
Question: I am	Frequency (f)	Percentage (%)
Training to be an English teacher	40	85.1
A certified English teacher	7	14.9
Total	47	100%

Table A: Fraguency distribution for general question A

As briefly mentioned in section 2.1.1a, the participants were asked in which province they taught. The responses to question 7 are illustrated in graph 1. Although they were allowed to select multiple answers for this question, none of the participants did so. With nine out of twelve provinces mentioned, the participant pool was moderately representative in terms of geographical representation. Especially considering the relatively limited number of participants. The answers to this question line up well with absolute population numbers for each province from the Dutch statistical office, Statistics Netherlands (CBS). The most populated provinces, listed in descending order according to absolute numbers, are Zuid-Holland, Noord-Holland, Brabant, and Gelderland. These four provinces were also the most frequently selected in the questionnaire. Although Gelderland is among the most populated provinces in the Netherlands, the number of responses it received was still disproportionately high.



Graph 1: Answer distribution for general question 7.

This is probably caused by the city of Nijmegen (situated in Gelderland) being used as the primary recruitment location. The recruitment process is discussed in section 2.3. The four medium population provinces are, in descending order, Utrecht, Limburg, Overijssel, and
Flevoland. Also show up in the middle of the table. Of these four provinces Utrecht received the highest number of responses in the questionnaire, which corresponds with its position as the fifth most populated province in the Netherlands. The remaining four provinces, Groningen, Drenthe, Flevoland, and Zeeland, have the smallest population, and of these four only Flevoland made it into the questionnaire. The numbers from Statistics Netherlands (CBS), as they were used in this study, are listed in appendix G. One respondent gave a puzzling answer by writing "lol" under the 'other' answer option. The answer is puzzling because this is neither a province in the Netherlands, nor a common abbreviation for a province. It is possibly an empty answer, used to bypass one of the obligatory questions.

The final demographic was teaching experience, which was measured in years of teaching. In accordance with Nijakowska (2014), the groups ranged from 'less than 2 years' to 'more than 10 years'. Graph 2 shows each group's relative group size.

Graph 2: Respondents' teaching experience.



Teaching experience

As mentioned in section 2.1.1a. an additional answer-option was included to this question initially. The 'internship' option was added to account for those participants who only taught as part of their internship. This category only received two responses, however, which makes the group too small to analyse their answers. Since teaching as part of an internship can also be categorised as 'less than two years' experience, the two respondents were added to the 7 participants who answered 'less than two years' on the questionnaire. This brought the total number of participants in this group to 9. Consequently, the groups for

this question once again aligned with those in Nijakowska (2014). The final number of participants of each group is listed in table 5.

Question: I have been teaching English for	Frequency (f)	Percentage (%)
Less than 2 years	9	19.1
3-5 years	10	21.3
6-10 years	10	21.3
More than 10 years	18	38.3
Total	47	100%

Table 5: Frequency distribution for general question 5

2.3 - Procedure

The questionnaire was administered online, with the use of Google forms. The online format was selected, so respondents could fill the questionnaire in at their own convenience. The questionnaire was distributed by means of an e-mail, which included a link to the questionnaire. It also provided a brief introduction of the study, and a request to participate. The e-mail also included the prerequisites for participation. While the questionnaire itself was in English, the e-mail was composed in Dutch. With the prerequisite for teachers to teach in the Netherlands, it was unlikely any eligible participants would not be able to read the letter in Dutch. Since the questionnaire was already in English and included a similar introduction at the start, there was no additional benefit to the letter being in English as well.

This study employed two different methods to recruit participants. Initially participants were gathered by writing schools. This e-mail included the aforementioned introductory statement as well as a request to forward this to the teachers of English working at those schools. At first this process was limited to Nijmegen, in order to evaluate the recruitment process and make changes where necessary. An overview of which schools were contacted, as well as their responses, are listed in Appendix E. Many of the schools responded by stating they had a policy against forwarding questionnaires in order to protect both students and teachers' well-being. This was unsurprising since Nijmegen has two universities with each their own teacher training programme for English. A different approach was devised, in order to cover a larger geographical area. This in turn would likely help reach teachers working in areas without a teacher training programme in the vicinity. The revised approach utilised a Facebook group for teachers of English in the Netherlands to recruit more participants. As the Facebook group was a closed group, the group administrators were approached by means of a personal message. This message requested permission to post a recruitment post on the page. Details on the Facebook group are included in Appendix F. While the new method seemed to yield more results than the previous one, it is difficult to state how many exactly. Before the Facebook recruitment method twelve respondents had completed the questionnaire. However, it is possible that some of the later respondents reached the questionnaire via the first recruitment method.

Both these methods were considered at the outset of the study, and each has its merits as well as its drawbacks. One problem with the first approach was that it could only cover a relatively small area. This was mainly due to the method being relatively time-consuming and inefficient. Compared to the first method the second method was much less time-consuming, because no schools had to be looked up and contacted. There was also no need to wait for replies or e-mail back and forth. The second method was also much more efficient; it took very little effort to reach a group of around 2000 members. The main drawback to the second method, however, was that it could only reach teachers who use Facebook. Restricting participation to teachers with Facebook was not beneficial to the study and could theoretically lead to skewed results. In an attempt to avoid this drawback, the schoolapproach method was selected to be tried first. Unfortunately, however, the amount of time required to approach schools and get the questionnaire under the teachers' attention had been underestimated. This combined with the hitherto unforeseen school policies, led to a switch from the school-approach to the Facebook-approach. All in all, the combination of both methods probably means the drawbacks of each method are counteracted by the other.

2.4 - Analysis

The quantitative data were computed using IBM SPSS Statistics 25. The method of analysis varied from the one used in Nijakowska (2014). While descriptive statistics were still used as the main operator, this analysis used frequencies and percentages rather than means and standard deviations. In addition, this study did not apply any parametric tests, such as the T-test and one-way ANOVA, due to the correct level of measurement for Likert-scale data. This study did not apply any non-parametric tests due to both its overall focus, and the number of participants.

The appropriate method of analysis for a dataset was largely determined by the statistical categorisation of the data. Establishing the correct level of measurement for a given data-set is important, because this determines the appropriate types of statistical analysis. As Jamieson (2004) pointed out, the "appropriate descriptive and inferential statistics differ for ordinal and interval variables" (pg. 1217). Jamieson (2004) further argued that applying the wrong statistical technique increases the chances of erroneous conclusions on the significance of a study. A prediction indeed reported in a study by Liddell and Kruschke (2018) who found that analysing "ordinal data as if they were metric can systematically lead to errors" (pg. 328). It was unnecessary to distinguish between the interval and ratio levels of measurement in their study, Liddell and Kruschke (2018) therefore used "the term metric to refer to either interval or ratio scales" (pg. 329).

While Likert scale data have regularly been categorised as interval data, some researchers warn against this practice (Jamieson, 2004; Liddell and Kruschke, 2018). Whether Likert scale data can be categorised as interval data, mainly comes down to whether the different points on the Likert scale have an equal distance between them or not (Jamieson, 2004). Andy Field (2013) clearly stressed, that in order to view data as interval data one "must be certain that equal intervals on the scale represent equal differences in the property being measured" (pg. 10). This means the data can only be categorised as interval data, if the different points on the scale always have the same distance between them.

An assumption of equidistance, between different points of the Likert scale, is problematic because the scale is open to interpretation. A five-point Likert scale, as used in this study, is often represented using numbers from 1 to 5, with 1 used for 'strongly disagree' and 5 for 'strongly agree'. Yet, it is erroneous to presume these numbers indicate the distance between 'strongly disagree' and 'disagree' is equal to the one between 'neither agree nor disagree' and 'agree'; the way the distance between 1 and 2 is equal to that between 3 and 4. As Liddell and Kruschke (2018) noted, the numbers indicate the order of the answers, instead of implying there is equal distance between each of them.

While some participants, perhaps even most of them, might work on an assumption of equal variance when answering a Likert scale question, there is no guarantee that all participants will do so. This possibility of varying distances means, that the level of certainty required to classify as interval data is not met. Likert scale data should therefore, as both Jamieson (2004) and Liddell and Kruschke (2018) have argued, be treated at the ordinal level of measurement.

Once the correct level of measurement has been established, the question still remained which method of statistical analysis to apply. According to Jamieson (2004) "ordinal data may be described using frequencies/percentages of response in each category" (pg. 1217). Jamieson (2004) further argued that, because parametric tests such as T-tests and ANOVA require data of the interval or ratio level, the "appropriate inferential statistics for ordinal data are those employing non-parametric tests, such as chi-squared, Spearman's Rho, or the Mann-Whitney U-test" (pg. 1217). This study did not apply these non-parametric tests, because the exploratory nature of this study meant descriptive statistics would suffice. Additionally, the different groups were too small, due to the relatively small number of total participants, for these tests to yield any meaningful results. The data were therefore analysed by means of descriptive statistics calculating the frequencies and percentages for each category. The applied measurement for central tendency was the mode, or most occurring value. Yet due to the low number of participants the second most frequent answer sometimes closely followed the most frequent answer. Consequently, the mode was not used in isolation, but instead the other values were also taken into account.

The qualitative data were analysed through the coding method (Boeije, 2016; Holliday, 2015). This means the responses were first tagged with one or more key words. These key words were assigned to each response in order to identify important themes within each answer. Once the individual responses had been analysed, they could then be compared to one another with the help of these tags. The main focus in this comparison was identifying which themes occurred more frequently in the answers. For the most part the qualitative data, used in conjunction with the quantitative data, were those reflecting these recurring themes. However, occasionally a particular answer stood out due to its insightfulness or extensiveness. Where such an answer is used in the text, it is explicitly noted that this is a unique answer, rather than one used to illustrate a recurring theme.

3. Results

This chapter details both the results from the statistical analysis of the quantitative data, as well as the qualitative data yielded by the open questions. The quantitative results are discussed first. This section is split into several subsections. The first details the results from the sixth general question. This was the only question not discussed in the previous chapter, as it was not a demographical question. This question aimed to establish how many teachers teach students with dyslexia. The other three subsections each discuss one group of scale questions. The scale questions were assigned to one of three groups, based on the research question are discussed in the second subsection. The next subsection lists the results for the second research question's results. The final subsection details the results for the questions related to the third research question. The qualitative results are discussed in the second section. The section lists the responses to the open questions at the end of the questionnaire. Only the responses relevant to the present discussion are listed in this section; a complete list of responses for each of the open questions is listed in appendix C.

3.1 - Quantitative results

3.1.1 - Classes taught

General question six asked the respondents what types of classes they taught this year (appendix A). This question was posed in order to determine how prevalent students with dyslexia are in the English language classroom, by establishing how many respondents teach students with dyslexia. They were given three options: 'classes where there are NO students with dyslexia', 'classes where there are some students with dyslexia (between 1 and 25% has dyslexia)', and 'special classes for students with dyslexia (over 25% of students have dyslexia)'. As it is possible for teachers to teach more than one type of class, respondents were allowed to select more than one answer to this question. Since respondents could select multiple answers, the percentages were not included in the analysis of this question. The frequency of each answer is listed in table 6. All but one respondent taught classes where some students have dyslexia. Two of the teachers taught classes where there were no students with dyslexia. Four teachers taught classes where more than a quarter of the students have dyslexia.

Question: This year I teach (more than one answer is possible)	
Types of classes taught this year:	Frequency (f) (N=47)
Classes where there are NO students with dyslexia	2
Classes where there are some students with dyslexia (between 1 and	46
25% has dyslexia)	0
Special classes for students with dyslexia (over 25% of students have	4
dyslexia)	4

Table 6: Frequency distribution for general question 6

3.1.2 - Group 1

This section will describe the results for the first group of scale questions. These questions are related to their knowledge on teaching students with dyslexia, and specifically their training on the subject. This group consists of questions 1, 3, 5, 6, 7, and 9. This will be followed by the results of the between-group analysis. For this set of questions, pre-service and in-service teachers were compared to one another. The respondents were assigned to either group, based on their answers to the fourth general question; for which they had to select whether they were certified English teachers (in-service) or training to be an English teacher (pre-service). The in-service group consists of forty respondents (85%), and the preservice group of seven (15%) respondents.

The results of the general analysis are illustrated in table 7. The results for question 1 show, that nearly all respondents agree with the statement. Over half of the respondents even strongly agrees with this statement. For question 3 the results are less unified. While the majority of respondents selected an answer indicating general disagreement, each answer option was selected by at least 5 respondents (10%). The results for question 5, on the other hand, show a stronger trend towards disagreement. For this question both 'definitely not true' and 'mostly not true' were each selected by over a third of the respondents, which means over two thirds of the respondents seemed to disagree with the statement. The results for question 6 show, similarly to question 1, nearly all respondents agree with this statement.

	Answers:				
	Definitely	Mostly	Some-	Mostly	Definitely
Statements:	not true	not true	times	true	true
1) I have a clear understanding of	0	1	1	20	25
what 'dyslexia' is.	0	1	1	20	25
3) I learnt about dyslexia during my					
studies at college / university / other	13	15	9	5	5
teacher training institutions.					
5) I learnt about teaching English to					
dyslexic students in my courses at	21	18	7	0	1
college / university / teacher training	41	18	/	0	
institutions.					
6) I believe teacher training					
programmes should include a course	0	2	1	16	28
on dyslexia and how to teach dyslexic	0				
students.					
7) I feel I need more information on					
the language teaching methods to be	4	1	16	12	11
able to successfully apply them to	-	+	10	12	11
dyslexic students.					
9) I feel specific training on the					
subject of dyslexia is NOT necessary,	31	0	4	3	0
due to the low number of students	51)			
with dyslexia.					

Table 7: Answer distribution for the general analysis of scale question group 1.

N = 47

Bold = a question's most frequent answer

Light green = an answer selected by at least a third of the respondents

Dark green = an answer selected by at least half the respondents

A third of the respondents selected 'mostly true' and more than half the respondents selected 'definitely true'. The results for question 7 reveal the respondents are more divided on this question. A third of the respondents selected the 'sometimes true and sometimes not true' option. However, when combined, the two answers indicating general agreement were chosen

by almost half of the respondents. The analysis of question 9 revealed two-thirds of the respondents had selected 'definitely not true' to this statement.

The comparison between the in-service and pre-service groups revealed the two groups mostly differed very little. The relevant results of the between-group analysis are listed in table 8, while the full results are listed in appendix B. For questions 5, 6, and 9 the

Table 8: Answer distribution for the between-group analysis of scale question group 1.

			Answers:			
		Definitely	Mostly	Some-	Mostly	Definitely
Statements:		not true	not true	times	true	true
1) I have a clear	understanding of	0	1	1	20	25
what 'dyslexia' is	S.	0	1	1	20	23
Groups	In-service teachers	0	0	0	17	23
Groups.	Pre-service teachers	0	1	1	3	2
3) I learnt about	dyslexia during my					
studies at college	e / university / other	13	15	9	5	5
teacher training institutions.						
Groups	In-service teachers	13	13	8	2	4
Groups:	Pre-service teachers	0	2	1	3	1
7) I feel I need n	nore information on					
the language teaching methods to be		1	4	16	10	11
able to successfully apply them to		4	4	10	12	11
dyslexic students.						
Groups:	In-service teachers	4	4	14	10	8
	Pre-service teachers	0	0	2	2	3

N = 47 (in-service = 40; pre-service = 7)

Bold = a question's most frequent answer

Light green = an answer selected by at least a third of the respondents

Dark green = an answer selected by at least half the respondents

answers for each group were generally in line with each other. The between-group analysis for question 1, however, revealed a slight difference between them. Here the in-service teachers unanimously agreed with the statement, either selecting 'definitely true' or 'mostly true'. Therefore, the two answers not in line with this trend were both selected by a preservice teacher. Similarly, the between-group analysis for question 7 revealed the answers were mostly similar. The results suggest it is possible that the pre-service teachers are slightly more inclined towards agreement than their in-service colleagues. Due to the low number of respondents in the pre-service group, however, this might just as well be a coincidence. The most notable difference between the two groups was found in question 3. The general analysis for this question revealed the respondents were more divided on this statement than the others in this group. The between-group analysis revealed that, while the majority of in-service respondents disagreed with the statement, the majority of pre-service teachers agreed

with this statement. While the small number of respondents still means it is difficult to say whether this is a significant difference, the difference was more pronounced than in questions 1 and 7.

3.1.3 - Group 2

This section details the results from the analysis of the second set of scale questions. This set consists of questions 11, 12, 16, 17, 19, and 20. These questions measure how the teachers perceive their own abilities when it comes to teaching English to students with dyslexia, as well as their confidence on this issue. The results of the general analysis are listed in table 9. Tables showing the data per question are included in appendix B.

		Answers:			
	Definitely	Mostly	Some-	Mostly	Definitely
Statements:	not true	not true	times	true	true
11) I believe I possess sufficient					
knowledge on dyslexia to teach	1	5	12	22	7
students with dyslexia.					
12) I am confident in my abilities to					
help dyslexic students during my	1	3	14	24	5
classes.					
16) I would make changes to my					
curriculum if it benefits students with	2	8	10	14	13
dyslexia.					
17) I would like to help my dyslexic	5	10	10	10	1
students more, but I don't know how.	5	10	10	10	4
19) I believe it is NOT necessary to					
differentiate between dyslexic and	10	14	10	2	1
non-dyslexic students, all students	10	14	12	2	1
should receive the same teaching.					
20) I often feel unsure how to help	4	0	17	16	2
dyslexic students when they struggle.	4	ð	1/	10	2

Table 9: answer distribution for scale question group 2.

N = 47

Bold = a question's most frequent answer

Light green = an answer selected by at least a third of the respondents

Dark green = an answer selected by at least half the respondents

The analysis of question 11 reveals the majority of respondents agreed with its statement; twenty-two respondents selected 'mostly true' and another seven selected 'definitely true'. Similar results were found for question 12, where twenty-four respondents selected 'mostly true' and five selected 'definitely true'. Although for question 16 almost as many respondents agreed overall, they were distributed more equally between the two

options. Unlike the previous questions the analysis for question 17 shows more diverse answers. Although 'mostly true' is selected most, there is no majority for overall agreement. The majority of respondents disagreed to the statement in question 19, with over a third of the respondents even selected 'definitely not true. The results for the final question in this set, question 20, show the option 'sometimes true and sometimes not true' was selected most frequently, with around a third of respondents selecting this option. However, the option 'mostly true' was also selected by around a third of the respondents.

3.1.4 - Group 3

In this section the results for the analysis of the third set of scale questions are described. This set consists of questions 2, 4, 8, 10, 13, 14, 15 and 18. These questions inquire after the respondents' teaching practices regarding students with dyslexia. The results for this group are summarised in table 10. Tables listing the results for each individual question can be found in appendix B.

			Answers:		
	Definitely	Mostly	Some-	Mostly	Definitely
Statements:	not true	not true	times	true	true
2) I often encounter dyslexic students	0	3	1	10	22
in my daily work.	0	3	I	10	
4) I have developed my own					
techniques for teaching English to	1	6	14	24	2
dyslexic students.					
8) I know how to develop learning	0	11	16	16	4
strategies for my dyslexic students.	0	11	10	10	4
10) I know how to grade my dyslexic	1	0	7	26	12
students.	1	0	/	20	15
13) I do not assess the spelling of	1	2	10	10	21
dyslexic students.	1	3	10	12	21
14) I provide extra time for dyslexic	0	0	2	5	40
students to do a written task.	0	0	2	3	40
15) If it is necessary, I orally assess	6	2	2	1.4	21
my dyslexic students.	0	5	5	14	21
18) I incorporate special learning					
strategies in my lessons for the benefit	5	14	13	12	3
of my dyslexic students.					

Table 10: answer distribution for scale question group 3.

N = 47

Bold = a question's most frequent answer

Light green = an answer selected by at least a third of the respondents

Dark green = an answer selected by at least half the respondents

The analysis revealed that for question 2, the vast majority of respondents selected 'definitely true'. The option 'mostly true' was selected by ten respondents, so all but four respondents expressed overall agreement to this statement. The results for question 4 show the option 'mostly true' was selected by around half the respondents. Two answer options were selected equally often for question 8; where both the 'sometimes true and sometimes not true' option and the 'mostly true' option were selected by around a third of the respondents. For question 10 a substantial majority indicated overall agreement to its statement. Over half the respondents selected 'mostly true', and another thirteen respondents opted for 'definitely true'. Over a third of the respondents answered 'definitely true' in response to the statement in question 13. Overall agreement was expressed by more than half the respondents, however, as another twelve respondents answered 'mostly true'. The respondents were most unified for question 14. Forty respondents, around 85%, selected the answer 'definitely true'. For question 15 the majority of answers, once again, indicated overall agreement. The option 'definitely true' was selected by more than a third of respondents, and fourteen respondents selected 'mostly true'. The answers varied most for question 18. The option 'mostly not true' was selected most often. However, this was only one respondent more than for the option 'sometimes true and sometimes not true', and only two more than for the option 'mostly true'.

3.2 - Qualitative results

In this section, the answers to the open questions are listed. Only those responses which are discussed in this study are included. The next chapter occasionally only quotes part of a reply. So, in order to aid the reader in finding the complete answer, the relevant answers and their corresponding questions are listed per respondent. A complete list of each question's answers can be found in appendix C.

The numbering of the questions was somewhat unusual. This was due to the first open question being moved to part B of the questionnaire. As previously explained in section 2.1.1b, it was listed with the scale questions for the convenience of the respondents. The open-questions were:

- 21. Do you have any information that you would like to add in relation to your answers from any of these scale questions? Please note the question number in your answer.
- 1. In your opinion, what hinders you most when helping students with dyslexia during their language learning journey?
- 2. Do you employ any specific strategies during your lessons to help students with dyslexia? If so, which one(s)?
- 3. Do you have any final remarks in regard to this questionnaire?

Responder	nt 2
Question	Answer
2	Yes. Making vocabulary visual, reading texts aloud, focussing on pronounciation

Responder	nt 3
Question	Answer
2	The most important thing I do is acknowledge their problem, so they won't
	suffer too much anxiety because of their problem

Responder	nt 4
Question	Answer
2	Writing words out on the board, providing extra time, encouraging them to
	write despite spelling mistakes/differences.

Responder	nt 5
Question	Answer
2	Learning strategies, especially how to study vocabulary and common phrases. I
	always especially advise my students to copy difficult words/phrases
	handwritten.

Responder	nt 6
Question	Answer
2	Yes, on how to study words the best. (which also goes for regular students)

Responden	nt 8
Question:	Answer:
21	2) I teach at an ISK-school where learners have a variety of backgrounds.
	Dutch is a second or sometimes third language for these learners and assessing
	dyslexia in our population of learners is unreliable and therefore often not
	formally diagnosed.
3	Interesting topic! I would agree with the sentiment that dyslexia is a topic that
	could do with more coverage in teacher training courses.

Respondent 9	
Question	Answer
1	They keep making the same mistakes. Some mistakes seem fossilised.
2	Specifically ask those students whether they understood the material.

Responder	Respondent 10	
Question	Answer	
2	Not really, but I usually give tips when spelling difficult words.	
3	I teach in a bilingual school. I only notice a difference when it comes to writing	
	- mostly spelling but sometimes they are also weak in grammar. I can ignore	
	the spelling mistakes (as long as it is phonetically correct) but if it would be	
	great to learn strategies to help them with grammar.	

Respondent 11	
Question	Answer
1	I miss some information on how to help them best

Respondent 12	
Question	Answer
1	I don't possess sufficient knowledge on dyslexia.

Respondent 16	
Question	Answer
2	Teach different learning strategies, work with digital materials to support
	loannig

Responder	Respondent 17	
Question	Answer	
1	How they state they Dont have to know the correct spelling because of their	
	dyslexia. They use it as an excuse	
2	I read aloud, I try to explain sounds and compare the sounds and spelling to L1	

Respondent 22	
Question	Answer
2	Spelling help - how many letters are there in a specific word? Explain letter order

Responder	Respondent 24	
Question	Answer	
21	Although I differentiate between dyslexic and regular students, regular students can benefit from the same strategies provided specifically for the dyslexic	
	students.	
2	I use visuals to support spoken instructions and explanations. I provide audio and text support to dyslexic learners when only one of the skills is taught. I provide dyslexic learners with an additional personal instruction to get them on task. I provide copies or handout of the explanation of grammar written or shown on the smartboars so the learners can focus on getting the hang of the rule and are not distracted by the pressure of having to take notes in a set time frame.	
3	My regular teacher trainee course in the Netherlands did not focus on specific learning difficulties. This was missing from the programme. I gained my knowledge through an exchange year in England where I specifically chose a subject related to learning difficulties.	

Responder	Respondent 27	
Question	Answer	
1	Too little time to differentiate enough between pupils who think English is hard	
	either way, the dyslexic pupils and the other pupils who deserve just as much	
	of my attention, be it personal or via my class activities.	
3	The likert scale questions were ambiguous sometimes.	

Respondent 30	
Question	Answer
2	Not always, I try to offer a variety of strategies.

Respondent 31	
Question	Answer
21	I found that when I asked my mature dyslexic students how I could help them,
	they told me that they didn't need anything other than extra time. I also found
	that the scala of tools was too broad to be practical. In addition, my mature
	students said, looking back, the support tney had did not prepare them for
	unsupported real life where they had to write letters and read texts without
	aides, and were judged for their work as any other employee. Skills were more
	related to coping
1	the symptoms and what helps and what doesn't is too varied to have a single
	classroom approach

Respondent 33	
Question	Answer
1	Only knowing how to grade them, not how to guide / assist them

Respondent 38		
Question	Answer	
1	Some are stubborn or unwilling to make the extra effort they do have to make.	
2	I tell them to start watching English films with English subtitles or tread along with listening books. And they always have to write down the vocabulary at	
	least once.	

Respondent 39		
Question	Answer	
1	The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it fools like an impossible task to them to do so in another	
	language. I really feel like I don't know how to properly help these pupils.	
2	If I have a class aid, I let him/her sit with the dyslexic pupils. When we do a reading task, I model the task. If possible I let texts be read to them.	

Respondent 40	
Question	Answer
1	When they really struggle, and my "normal" strategies for helping them don't
	work. Then I don't know what to do anymore.
2	Probably too little. I do give them extra time and encourage students to listen to
	the material.

Respondent 41		
Question	Answer	
2	Give them more time to finish a task, give the opportunity to listen to written	
	texts.	

Respondent 45		
Question	Answer	
1	There is not enough time to differentiate when you have classes of 30+ students	

Respondent 46	
Question	Answer
1	They often refuse special facilities because they want to do things the same way the other students do.
2	I read aloud a lot, I use the computer whenever I can, use dictionaries on their phones

These answers will be discussed in more detail in the next chapter. There they will be compared with the quantitative results to see how they might provide an answer to the research questions.

4. Discussion

In this chapter the results will be discussed in light of the three main research questions, in order to formulate an answer to these questions. Each research question is discussed in a separate section. These sections are divided into smaller sub-sections. While the first sub-sections are devoted to a specific sub-question, a section's final sub-section discusses the main findings in light of its main research question.

4.1 - Teacher training and dyslexia

The first goal of this study was to explore whether training programmes for EFL teachers included any training on dyslexia. The research question: 'in what way are EFL teachers in the Netherlands trained to help students with dyslexia in their language learning process?' was formulated to establish this. Two sub-questions were added to this overall research question. These two sub-questions will each be discussed in more detail, and afterwards the findings will be combined to formulate an answer to the overall research question.

<u>4.1.1 - Sub-question a: Teacher training needs</u>

This part's initial sub-question was: 'what needs do the teachers express in terms of training on the subject of dyslexia?'. The aim of this question was to evaluate whether teachers saw any benefit in training aimed specifically at dyslexia. The questionnaire included three scalequestions that could help provide an answer to this question, these were questions 6, 7, and 9. There were also responses from the open questions which are helpful when trying to answer this question; considering none of the open questions asked about this topic specifically, their number is surprising.

The responses to question 6 seem to suggest teachers feel a need for more dyslexiaspecific training. In response to its statement: 'I believe teacher training programmes should include a course on dyslexia and how to teach dyslexic students', the respondents almost unanimously agreed. Moreover, the majority of respondents selected the strongest answer of agreement. These results are largely confirmed by those of question 9. As previously discussed in chapter 2.1.1b, the aim of question 9 was to provide an opposing view to respondents in order to check for social desirability. As the results were largely, but not completely similar this tactic appears to have been partially effective. So, although the results do suggest social desirability is possibly influencing the results, they also suggest the majority of teachers really do feel a need for more training on this subject. When it comes to their own training, however, the results are more spread out. While perhaps not as one-sided as previous questions, the results still suggest most teachers feel they could use more information on this topic. Based on these results, only around one out of six teachers feels extra information on teaching strategies are unnecessary.

The responses to the open questions provide some insight into the type of training teachers might find useful. In response to the question what hindered them most in trying to help students with dyslexia, multiple respondents mentioned a lack of knowledge as their biggest hindrance. Respondents 11, 12, 14, 20, and 41 all described a lack of knowledge on dyslexia as their biggest hindrance (Appendix C). While this is still rather broad and non-specific, some respondents were more specific in their answers.

One opinion expressed by multiple respondents was to learn more about different teaching strategies to help students with dyslexia. Respondent 10, for instance, responded to the final question with: "...I can ignore the spelling mistakes (as long as it is phonetically correct) but if it would be great to learn strategies to help them with grammar". For respondent 33 their biggest hindrance when teaching students with dyslexia was: "[o]nly knowing how to grade them, not how to guide / assist them". A similar hindrance was expressed by respondent 40, who remarked "[w]hen they really struggle, and my 'normal' strategies for helping them don't work. Then I don't know what to do anymore". This statement suggests they would like to learn additional strategies to apply when regular methods fail. What type of strategies they refer to, however, is not entirely clear since it depends on what they mean with "normal strategies". It is possible that "normal strategies" refers to the strategies for helping dyslexic students they usually employ. If that is the case the statement might be an expression of powerlessness. It seems more likely, however, that "normal strategies" refers to the standard strategies taught to teachers. Strategies which are developed for regular students, rather than students with dyslexia. Which would mean the teacher feels unsure how to proceed when the standard teaching strategies fail, and so they would be helped by learning special teaching strategies they can apply in those circumstances.

Based on these results, it would seem that the initial expectation is indeed correct. Teachers are generally in favour of additional training on the topic of dyslexia. Many teachers express a need for additional training on how to help students with dyslexia. Several responses to open questions illustrate how some teachers feel they do not know enough about dyslexia to effectively help their students.

4.1.2 - Sub-question b: Differences in past vs. current dyslexia training

The second sub-question asked what differences there are between current teachers and teachers in training in terms of training they received on the subject of dyslexia. The question was included in this study in order to evaluate whether dyslexia has received more attention over the past few years. Three scale-questions are relevant when discussing this question, questions 1, 3, and 5.

The data from the between-group analyses for the three questions suggests there possibly are some differences between teachers-in-training and fully certified teachers. The results for question 1, revealed a minor difference between the two groups. Where the inservice teachers unanimously chose between the two agreement options, the pre-service teachers also had two respondents selecting two other options. For question 3, the results there seems to be even more of a difference. While the in-service teachers seem more inclined to disagreement for this statement, it seems that it might just be the opposite for preservice teachers. While the few pre-service teachers are too divided to establish a clear difference, it suggests that teacher training courses are possibly discussing dyslexia more extensively than in the past. However, based on the results from question 5, it is questionable how extensive this difference it is. There seems to be very little difference between the two groups when asked if they have learnt how to teach English to students with dyslexia. Thus, even if dyslexia is discussed more during teacher training, it seems unlikely that this is done in-depth.

Admittedly, the number of respondents currently training to be English teachers is rather small. With only seven respondents in this group, it is impossible to judge how representative their answers are for the entire population. In small samples such as this, individual outliers can distort the results. Consequently, it is only possible to establish where the two groups possibly differ, rather than establish any clear differences. A larger study would be needed to clearly establish whether these groups differ.

In sum, the study did not expect to find any substantial differences between the two groups when it comes to training on dyslexia. Although the data do not allow for any clear confirmation of this hypothesis, it does suggest any differences between the groups are likely limited. Teacher training programmes currently might discuss dyslexia, yet the data also suggest it is probably not very in-depth.

4.1.3 - Research question 1: Assessing teacher training on dyslexia

This section's main question was: 'in what way are EFL teachers in the Netherlands trained to help students with dyslexia in their language learning process?'. The first sub-question looked at whether teachers felt a need for training on this topic, while the second subquestion looked at possible differences between current teachers-in-training and certified teachers.

From the data, it seems that EFL teachers in the Netherlands receive little training on dyslexia. Despite most teachers reporting that they know what dyslexia is, it seems only a small number of them learnt this during their teacher training. This is similar to findings by Nijakowska (2014). And while the small number of pre-service teachers makes it difficult to state with any degree of certainty, there appears to be very little reason to assume teacher training programmes are currently including more information on dyslexia in their programmes.

At the same time, the teachers show an overall willingness for further training. The vast majority of teachers sees further training on dyslexia as beneficial addition to teacher training programme. Only a small number of teachers does not feel additional information on teaching methods is needed for them in order to apply them to students with dyslexia. The need further training is nicely illustrated by these two answers to the open questions. As a final remark on the questionnaire respondent 8 wrote: "[i]nteresting topic! I would agree with the sentiment that dyslexia is a topic that could do with more coverage in teacher training courses" Similarly respondent 24 remarked: "My regular teacher trainee course in the Netherlands did not focus on specific learning difficulties. This was missing from the programme. I gained my knowledge through an exchange year in England where I specifically chose a subject related to learning difficulties". Both respondents used this open question to emphasise that dyslexia training would be a valuable addition to teacher training programmes. The answer by respondent 24 even illustrates how teachers might need to take classes abroad to obtain this knowledge.

It must be noted, that the self-report nature of this study limits the findings to the teachers' perceived knowledge. This means it is not possible to determine whether their knowledge on dyslexia is indeed correct. In other words, when a teacher says they know what dyslexia is, there is no way to know whether their definition of dyslexia is correct or not. Consequently, the study can only discuss the teacher's perspective, instead of their actual performance.

4.2 - Teacher opinions

The second goal in this study was to establish how teachers view dyslexia in the classroom, and whether they feel capable enough to handle the difficulties that might come with it. The second research question, 'do EFL teachers in the Netherlands feel capable and willing to teach students with dyslexia?', was composed to provide an answer to this issue. The 'willing' in this question refers to their willingness to adopt inclusive teaching methods, and more generally their opinions on the way dyslexia should be treated in the language classroom. Three sub-questions were added to this research question to highlight three aspects of focus. The first sub-question looked at teacher confidence, the second at how they judge their own knowledge and abilities on this issue, and the final question looked at how willing they are to make changes for students with dyslexia. This section's main research question will be discussed once each sub-question has been answered.

4.2.1 - Sub-question a: Teacher confidence in the Netherlands

In order to establish how confident teachers feel when it comes to teaching students with dyslexia, questions 12 and 20 were included in the questionnaire. The responses to both questions, however, were somewhat puzzling. On the one hand, at question 12, the majority of respondents indicates feeling confident in their abilities to help students with dyslexia. Yet several questions later, at question 20, only around a quarter of the respondents denies often feeling unsure how to help a struggling student with dyslexia. It seems almost contradictory, that over half the teachers initially indicates feeling confident in their abilities, yet at another question only around a quarter of teachers denies often feeling unsure when helping struggling students.

The initial expectation for this sub-question was that teacher confidence would likely be low. The results, however, provide insufficient evidence to definitively state this. However, even though the data did not clearly show teachers generally lack self-confidence when teaching students with dyslexia, it did reveal this might steel be experienced by a substantial number of teachers. So, although the data did not allow the hypothesis to be confirmed, it also did not clearly disprove it. Further study would therefore be needed to establish whether low self-confidence might be a recurring problem for EFL teachers, when they teach students with dyslexia.

As there is a possibility, that teaching experience affects teacher confidence on this issue, the responses were also briefly compared based on teaching experience. Nijakowska

(2014) and Anraad (2018) both noted in their studies that that teachers often obtain their knowledge on dyslexia from experience rather than instruction. It is therefore possible that less experienced teachers feel less confident than more experienced ones. A detailed investigation of a connection between teaching experience and a teacher's confidence regarding dyslexia, however, was outside the scope of the present study. Yet, as this point was raised in both these studies, the data for these questions were briefly compared with regard to teaching experience. The aim of this comparison was solely to establish whether there was any cause for further investigation. Especially since the results of this comparison are too limited to clearly determine whether there is a correlation between these two factors.

The results from this cursory comparison do suggest there could possibly be a correlation between teaching experience and teacher confidence in terms of dyslexia. Consequently, it might prove useful to further investigate this possibility. The data of the between-group comparison can be found in appendix B.

4.2.2 - Sub-question b: Knowledge and teaching abilities

The next sub-question looked at how the respondents view their own knowledge on dyslexia as well as their ability to teach students with dyslexia. Contrary to the first sub-question, this one looked at how the teachers estimate their own abilities, instead of how they feel when helping students with dyslexia. Of particular relevance in this discussion are questions 11 and 17, but the results from question 7 will also briefly be referenced.

The results for these two questions, like those from the previous sub-question, are once again quite contradictory. On the one hand the results from question 11, suggest that a majority of teachers feels they know enough about dyslexia to effectively teach students who have it. Yet at the same time, the results from question 17 suggest nearly half of the teachers are willing but lack the knowledge to be more helpful to their dyslexic students. An almost identical outcome was also found for question 7; where a similar number of teachers expressed a need for additional information on language teaching methods.

The double-barreled nature of question 17 has already been discussed in section 2.1.1b. This means it is impossible to say which aspect of the statement those who disagree with the statement object to. They might disagree to the statement because they do not want to do more for students with dyslexia, or they might want to help more but do not lack the knowledge to do so. However, this double-barreled aspect only applies to disagreement, as agreement means they agree to both aspects of the question. This means that the results of

this question still provide relevant information, as nearly half of the teachers agree with the statement.

The findings from questions 17 and 7 are reflected by multiple responses to open question 1. Section 4.1.1 already highlighted several respondents describing a lack of knowledge on dyslexia as their biggest hindrance when helping students with dyslexia (Respondents 11, 12, 14, 20, and 41). Additionally, respondent 39 wrote a particularly reflective answer; in which they stated that "[t]he difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible[sic] task to them to do so in another language. I really feel like I don't know how to properly help these pupils". This respondent seems to be aware that dyslexia can manifest itself in various ways, and expresses a lack of knowledge as the main reason they are unable to help them.

The divergent results from questions 11 and 17 make it difficult to establish how teachers view their own abilities when it comes to dyslexia. As previous studies had shown teachers often lack any training on helping students with dyslexia (Anraad, 2018; Kormos & Nijakowska, 2017; Nijakowska, 2014; Nijakowska et al., 2018), the teachers in the present study were also expected to have had little training on this subject. The first research question already confirmed this expectation. Due to this lack of training, however, the teachers were also expected to believe they need more information to adequately help students with dyslexia. While the results from question 11 suggest this is generally not the case, the results from question 17 suggest it might still be a common opinion. The results from question 17 are further supported by those from question 7 and open question 1. So, while the hypothesis cannot be clearly confirmed based on these results, they do not clearly disprove it either. Further study would therefore be needed to clearly establish whether teachers feel they have sufficient knowledge to help students with dyslexia.

4.2.3 - Sub-question c: Willingness to provide inclusive teaching

This part's final sub-question looked at the respondents' willingness to provide inclusive teaching for students with dyslexia. The questionnaire included two questions on inclusive teaching in order to establish teacher attitudes. In question 16 respondents were asked, if they would make changes to their curriculum if students with dyslexia benefit from it. Question 19 asked for the opposing viewpoint in order to check for social desirability bias, this has been discussed in more detail in section 2.1.1b.

The results suggest teachers are generally quite positive about inclusive teaching. According to the results from question 16, it would seem that the majority of teachers is willing to adapt their curriculum if it would benefit students with dyslexia. A similar result was also found for question 19, which was designed to account for social desirability. Here the teachers seemed to be even more in favour for inclusive teaching than at question 16.

Although the quantitative results show teachers are largely willing to provide inclusive teaching for students with dyslexia, the qualitative results reveal why some teachers feel differentiating might be more difficult for them. Several respondents took the opportunity in the open questions to discuss their views on differentiation and inclusive teaching. Several of them discussed reasons why differentiation was not always possible for them. Respondent 45 raised the valid concern that "[t]here is not enough time to differentiate when you have classes of 30+ students". Respondent 31 raised a similar point, and wrote: "the symptoms and what helps and what doesn't is too varied to have a single classroom approach". Both teachers express that the average class is too large for individual differentiation. As respondent 31 correctly points out, the needs of one student with dyslexia might be different from another's, so for maximum effectiveness individual differentiation is required. However, it is important to note that this does not mean a more general approach to differentiation is ineffective.

A similar problematic aspect of differentiation is discussed by respondent 27, who writes: "[t]oo little time to differentiate enough between pupils who think English is hard either way, the dyslexic pupils and the other pupils who deserve just as much of my attention, be it personal or via my class activities". While it is a valid point that differentiation aimed at students with dyslexia should not inhibit students without dyslexia who struggle with English. An answer by respondent 24 shows this valid concern is perhaps unneeded. This respondent wrote: "[a]lthough I differentiate between dyslexic and regular students, regular students can benefit from the same strategies provided specifically for the dyslexic students". This respondent argues that adapting the lessons, to better suit students with dyslexia, does not mean regular students receive less of the teacher's attention. Instead differentiation can be just as beneficial for students without dyslexia who also struggle with English.

One response raised a rather surprising point on differentiation, that was not anticipated beforehand. Respondent 31 wrote another response on differentiation, other than the one cited two paragraphs ago. In response to question 21, when asked whether they had any additional thoughts on one or more of the scale questions, the respondent wrote: "I found that when I asked my mature dyslexic students how I could help them, they told me that they didn't need anything other than extra time. I also found that the scala of tools was too broad to be practical. In addition, my mature students said, looking back, the support tney[sic] had did not prepare them for unsupported real life where they had to write letters and read texts without aides, and were judged for their work as any other employee. Skills were more related to coping" (Respondent 31)

This response is surprising, because most studies seem to work from a basic assumption that more attention is automatically a good thing for students with dyslexia. Yet this comment shows that this assumption might not be shared by students with dyslexia once they have grown up. It is possible that differentiation might make students with dyslexia feel unprepared when they leave school and head out into the 'real' world. Further study would be necessary to determine whether students see the benefit of specialised teaching, or whether they believe it will only hold the back in the long run.

One possible explanation for the sentiments reported by respondent 31, is that they argue against special treatment rather than against differentiation. When done correctly, differentiation in the classroom means adapting the lesson plan to teach students with dyslexia more effective learning strategies. This in turn should help them reach a higher level of English competency than they might otherwise have obtained. It would therefore seem rather strange for students to object to this type of teaching, provided it is done correctly; as it leaves them better, rather than less, prepared for later life. Special treatment, however, does not have these benefits, but instead only makes it easier for students with dyslexia to get through school. This is why the findings by the Kohnstamm instituut (2011), that teachers in the Netherlands often only differentiate in assessment and rarely in teaching, are rather troubling. Such approaches run the risk of becoming 'special treatment' instead of differentiation or inclusive teaching practices. It is therefore perhaps more apt to say that respondent 31 illustrate the pitfalls of ineffective differentiation, rather than a downside of differentiation in general.

All in all, the results suggest that teachers are generally quite willing to provide inclusive teaching for students with dyslexia. The quantitative results show a remarkable willingness among the respondents to make changes for the benefit of students with dyslexia. This is similar to the findings in Anraad (2018). Yet, the qualitative results also highlight several reasons why teachers might perhaps feel more apprehensive when it comes to differentiation. Previous studies have shown that such apprehensions are often greatly reduced through instruction (Kormos & Nijakowska, 2017; Nijakowska et al., 2018), so these objections could be based on perceived difficulties rather than actual difficulties. Overall, however, it would seem the initial hypothesis can be confirmed. Teachers are generally willing to provide inclusive teaching.

4.2.4 - Research question 2: Teachers' views on dyslexia

Now that each sub-question has been answered, it is time to formulate an answer to the second research question: do EFL teachers in the Netherlands feel capable and willing to teach students with dyslexia? It is quite difficult, however, to formulate a clear answer to this question based on the current results. The results only clearly show that teachers are generally willing to provide inclusive teaching for students with dyslexia. The majority of teachers seems open to changing the curriculum to help those students.

It is less clear how teachers view their own capabilities when it comes to teaching students with dyslexia. Due to seemingly contradictory results it is difficult to judge whether teachers regularly feel they do not possess sufficient knowledge on dyslexia to effectively help students with dyslexia. While the data do show such feelings are felt by some teachers, it is difficult to judge how common this is exactly. Nevertheless, the data do point towards the possibility that this might be a substantial number.

The data are similarly confusing on teacher confidence. While, on one hand, the majority of teachers indicated feeling confident in their capabilities to help students with dyslexia. At the same time, however, many reported often feeling unsure how to help students with dyslexia who struggle with English. So, while this makes it difficult to establish whether teachers overall feel confident when it comes to dyslexia in their classrooms, it does show that feelings of uncertainty are not uncommon when students with dyslexia struggle to keep up.

It therefore seems, that while feelings of insecurity and a lack of confidence in their own abilities are encountered among teachers when it comes to dyslexia in the classroom, they still clearly show a willingness to support these students and help them succeed in school.

4.3 - Classroom practices

This study's final goal was to investigate classroom practices when it comes to dyslexia. It sought to establish what measures teachers take, what strategies they apply, and how much they differentiate between students with and without dyslexia. The third research question, 'How do EFL teachers in the Netherlands adapt student interactions to cater for dyslexia?' was formulated to allow for a broad approach to this already broad topic. Four sub-questions were formulated to focus on different aspects of classroom teaching.

It is important to point out that, as the study relies on self-report measurements rather than classroom-observances, it cannot determine the effectiveness of the teachers' classroom approaches. Anraad (2018) for instance, found that what students with dyslexia reported did not always align with what the teachers reported. Self-report data reveal the teachers' point of view, rather than any objective truth. Consequently, this present study can only show whether teachers intend to help students with dyslexia in their classrooms; it cannot show their effectiveness in teaching students with dyslexia, nor how these attempts are viewed by students.

4.3.1 - Sub-question a: Teaching experiences when it comes to dyslexia

This part's first sub-question, 'what experience do they have in terms of teaching students with dyslexia?', tried to establish how common dyslexia was in an English language classroom in the Netherlands. Scale questions 2, 4, and 8 as well as general question 6 are of particular relevance in this context.

In Nijakowska (2014), the study the present one is based on, only around 30% of the teachers reported regularly encountering learners with dyslexia in their classes. Based on the results from both general question 6 and scale question 2, this percentage seems to be much higher in the Netherlands. The results from question 6 show all but one respondent taught classes where some students had dyslexia. Similar results were found for question 2, where 90% of the respondents indicated regularly encountering students with dyslexia.

While this difference is substantial it is not completely surprising. The percentage of diagnosed children with dyslexia is around 8% in the Netherlands (CBS, 2016; Urff, 2019). Considering that most secondary school classes have between twenty and thirty students (Regioplan beleidsonderzoek, 2016), that means an average of two students with dyslexia per class. Furthermore, it is likely to assume that teachers are aware of which students have been diagnosed. As the Dutch government requires an official diagnosis in order for students to

access special accommodations (Ministry of Education, 2020, 03, 03), teachers are able to tell which students have been diagnosed based on which students have access to special accommodations. This explanation is also described by respondent 8, as they write: "I teach at an ISK-school where learners have a variety of background. Dutch is a second or sometimes third language for these learners and assessing dyslexia in our population of learners is unreliable and therefore often not formally diagnosed". Because this respondent teaches students from a non-Dutch background, diagnosing dyslexia becomes unreliable. Consequently, the percentage of students diagnosed with dyslexia is much lower in this type of classroom. The findings are also in line with a recent international survey by the Organisation for Economic Co-operation and Development (OECD) which found that in 2018 "[a] higher proportion of teachers in Netherlands teach in classes with more than 10% of special needs students compared to other TALIS countries" (OECD, 2019). The survey did not look at dyslexia specifically, but instead at students with special needs in general; these are students with disabilities, difficulties, or disadvantages. Dyslexia is listed under the 'learning and behaviour difficulties' and therefore also included among these 'special needs' students (OECD, 2007).

The results to question 4 showed that the majority of teachers have developed their own techniques for teaching students with dyslexia. As sub-question 1.b already revealed that teachers receive little training on teaching students with dyslexia, this result is hardly surprising. It seems teachers are often left to develop their own methods to help students with dyslexia. In response to question 8, however, fewer respondents feel they know how to develop learning strategies for these students. The difference between the two questions suggests that, while most teachers have developed ways to explain the material to students with dyslexia, far fewer know how to teach these students how to effectively study the material effectively.

All in all, the results seem to show EFL teachers in the Netherlands encounter dyslexia in their classrooms more often, than EFL teachers in other European countries (Nijakowska, 2014). Additionally, many teachers report having developed their own teaching techniques for teaching students with dyslexia. Although when asked in a later question whether they know how to develop learning strategies for these students, far fewer teachers report knowing how to do so. Considering how recurrent dyslexia is, according to these teachers, it might be beneficial to the quality of education if teachers are taught how to do this. Nevertheless, the results confirm the initial expectation that EFL teachers in the Netherlands have a lot of experience with dyslexia in their classrooms.

4.3.2 - Sub-question b: Teaching strategies in class

The next sub question looks at the use of teaching strategies during lessons. The question was 'do they employ specific strategies in their lessons to help students with dyslexia during the learning process'. It aimed to establish to what extent teachers incorporate learning strategies for students with dyslexia in their lessons. The three most relevant questions to this topic are, scale question 8 and 18, and open question 2. The scale questions show whether teachers apply any learning strategies in their lessons, while the open question can provide insight into what those methods might be.

As previously discussed in subsection 4.3.1, the responses to question 8 shows many teachers report not knowing how to develop learning strategies for students with dyslexia. The responses to question 18 show that while some teachers incorporate special techniques, many also do not. The results around 40% of teachers rarely or never uses special teaching methods during their lessons. This can also be seen in the responses to the open questions, where the question: 'do you employ any specific strategies during your lessons to help students with dyslexia? If so, which one(s)?' was answered by around 12 respondents with "no", "not really", or something similar (Appendix C).

While the percentage of teachers who do not apply specific teaching methods for the benefit of students with dyslexia is quite considerable, it also means more than half the teachers do in fact employ some teaching strategies during their lessons. The following paragraphs will discuss some of the methods described by teachers. It will also link those to the MSL-method, one of many methods developed to aid students with dyslexia in their learning process.

The answers to open question 2 show, that some teachers use spoken English as a learning tool for students with dyslexia during their lessons. Several teachers mentioned paying attention to spoken English for the benefit of students with dyslexia. Four teachers mentioned reading out loud to aid their dyslexic students. Respondent 46 lists several methods to aid students with dyslexia in their learning, one of which is reading aloud. Respondent 2 also included reading aloud in their list of learning strategies in their answer: "[m]aking vocabulary visual, reading texts aloud, focussing on pronounciation [sic]". Similarly, respondent 21 wrote: "[r]ead aloud, practise pronunciation while showing the written word/text.". Another similar answer was given by respondent 17, who wrote: "I read aloud, I try to explain sounds and compare the sounds and spelling to L1".

These responses all mention a reading out loud as a teaching technique, and some also focus on pronunciation. The answers from both respondents 21 and 17 in particular suggest, that they seem to understand well how new sounds can prove particularly challenging for students with dyslexia. Furthermore, they seem to be aware that linking sounds to written words might prove difficult for these students as well. They try to remedy these difficulties by reading texts to their students or pay special attention to pronunciation.

Similarly, respondents 39, 40, and 41 mention using spoken material in their lessons, rather than reading texts out loud themselves. Respondent 39 writes "If possible I let texts be read to them", although there is no further explanation whether these are recordings or whether they let other people read it to them. Similarly, respondent 41 wrote "…give them the opportunity to listen to written texts", without any further details on how they do this exactly. Respondent 40, on the other hand, writes they "…encourage students to listen to the material". This would suggest there are audio recordings available to the students, and the teacher encourages their students to listen to these recordings.

What is striking about these responses, is that they all address the difficulty with phonetics often experienced by students with dyslexia. This focus is also at the core of the MSL method, which encourages teachers to explicitly teach students the various sounds in a new language as well as how they are represented in writing (Sparks et al., 1998; Schneider & Kulmhofer, 2016). It also encourages "the simultaneous use of students' visual, auditory, and kinesthetic (motor) skills" (Sparks et al., 1998). By explicitly focussing on pronunciation the teachers help their students overcome a major barrier in their foreign language learning barrier. Furthermore, by providing students with audio-guidance in addition to a written text, these teachers enable their students to utilise another sense in their learning process. This in turn provides students with dyslexia with a type of safety net in case they struggle with the written material.

Another method, mentioned by multiple respondents, was extra help with English spelling and vocabulary training. While respondent 10 reported not really employing any specific teaching strategies, they "usually give tips when spelling difficult words". While the answer does not indicate what sort of tips these might be, it does signal additional effort when it comes to spelling. Likewise, respondent 22 writes: "[s]pelling help - how many letters are there in a specific word? Explain letter order". This respondent is somewhat more expensive in their explanation of how they help their students with spelling. In similar fashion, respondent 2 writes "...[m]aking vocabulary visual, ...", and respondent 4 lists "[w]riting words out on the board, ..." as one of their teaching strategies.

Both teachers describe paying special attention to the English orthography through visual representation. Similar to the previous method, this method is also very much in line with the MSL method. By paying special attention to the English spelling system, these teachers do not rely on their students' implicit learning capabilities to learn the new spelling system. If students with dyslexia clearly understand how sounds are represented in English writing, spelling will probably be far less of a challenge to them. And although this applies to any language they learn, it is probably vital when learning English, as its spelling is notoriously opaque.

A third method, mentioned by several respondents, was to provide students with study tips. Respondents 6, 16, and 30, for instance write they offer various strategies, yet do not go into detail what sort of strategies they discuss. Respondent 38, on the other hand, writes: "I tell them to start watching English films with English subtitles or tread along with listening books. And they always have to write down the vocabulary at least once". This provides a more detailed description of learning strategies. The students are encouraged to watch films in English with English subtitles so they are unable to rely on the Dutch translation when watching the film. Additionally, by telling the students to turn on English subtitles, the students are provided with written accompaniment to the spoken language in the film. This is especially useful when scenes have quiet dialogue or distracting sound effects in the background. Similarly, by telling students to read along with audio-books the material is again presented in a combined visual-auditory format. The final method mentioned in this answer is to have students write down vocabulary at least once. This method addresses the students' motor skills to again reinforce the material. This method seems in accordance with Nijakowska (2010) which emphasises the importance of regular and frequent repetition. Respondent 5 also seems to be aware this importance, because they write: "[1]earning strategies, especially how to study vocabulary and common phrases. I always especially advise my students to copy difficult words/phrases handwritten". Like respondent 38, this respondent utilises repetition and muscle memory to improve vocabulary retention.

There were several responses which, though seemingly miscellaneous at first, showed how some teachers pay special attention to students with dyslexia. Respondent 3 wrote that "[t]he most important thing I do is acknowledge their problem, so they won't suffer too much anxiety because of their problem". Likewise, respondent 4 wrote: "…, encouraging them to write despite spelling mistakes/differences". The importance of such reassurances should not be underestimated, because, as Csizér et al. (2010) found, some students experience anxiety and inadequacy due to their dyslexia.

The answers from two other respondents illustrated a similar focus on students with dyslexia. One of these was respondent 9 who wrote they "[s]pecifically ask those students whether they understood the material". While respondent 39 said "[i]f I have a class aid, I let him/her sit with the dyslexic pupils". In both of these approaches the teachers highlight students with dyslexia compared to the rest of the class. Hornstra et al. (2010) also emphasises that teachers should be mindful in their approach, since students run a risk of being singled out from the rest of the class which in turn could potentially lead to stigmatisation because of dyslexia. This does not necessarily mean, that the approach these teachers describe, is detrimental to the students. It very much depends on the students, the class, and the way it is done. Instead teachers should be mindful singling out students with dyslexia could also have negative consequences for them, and judge whether it is appropriate to do so. So, while respondent 9 specifically checks whether students with dyslexia understand the material, they do not say whether this is only done to students with dyslexia. Perhaps they also ask other students the same question. Ideally in this situation, neither the student nor the class is aware they are being singled out because of their dyslexia.

One answer, that merits special attention due to its comprehensive nature, is respondent 24's answer to the second open question. While other answers often touched upon one or two valuable teaching strategies to help students with dyslexia, this answer details multiple valuable teaching strategies that are not mentioned by any other respondent. In their answer to another question respondent 24 already explained that "I gained my knowledge through an exchange year in England where I specifically chose a subject related to learning difficulties", which would explain why this answer is so strikingly comprehensive.

"I use visuals to support spoken instructions and explanations. I provide audio and text support to dyslexic learners when only one of the skills is taught. I provide dyslexic learners with an additional personal instruction to get them on task. I provide copies or handout of the explanation of grammar written or shown on the smartboars [sic] so the learners can focus on getting the hang of the rule and are not distracted by the pressure of having to take notes in a set time frame". Respondent 24.

The answer highlights four strategies applied during their lessons. While the second of these four is in line with the MSL-method and is highly similar to the first set of responses discussed earlier in this subsection, the remaining three techniques address the fundamental

problems associated with dyslexia. The techniques address the cognitive problems, rather than the behavioural characteristics, making the answer so remarkably comprehensive.

The answer is also exceptional because it provides four relatively easily implemented techniques for other teachers to follow. It is difficult to estimate how much time these techniques would take exactly. Without further study, by means of in class-observations for instance, it is therefore difficult to judge whether it is possible for teachers to implement these methods. Respondent 24 seems able to implement these methods into their teaching, although it is impossible to evaluate their effectiveness due to the self-report nature of the data.

By providing visual support to verbal instructions, the respondent addresses the processing impairment encountered by Menghini et al. (2011) and Fischbach et al. (2014). In its study, Fischbach et al. (2014) found children with literacy disorders often have problems storing and manipulating phonological information. This means students with dyslexia often find it difficult to understand and apply verbal instructions or explanations. So, by providing these on paper, these students are able to process them at their own pace. While this is similar to the answers given by other respondents, in that it textually supports spoken language, this teacher seems to go further and also supplies textual support for their explanation.

Similarly, providing students with additional personal instructions, helps those students complete tasks and study effectively. Students with dyslexia not only have difficulty in understanding verbal instructions, but because of their working memory impairment they also have more difficulties staying on task. The working memory is essential in focussing on the task at hand by ignoring distractions. Since dyslexia can cause students to lose sight of the main goal of the assignment, and instead lets them get side-tracked by details, it is very helpful for students to have receive written instructions in addition to verbal instructions. By having these instructions on paper, they can re-read the instructions at their own discretion to clarify what is expected of them. There is an additional benefit to handing out written instructions. Due to their phonological processing impairment, the dyslexic student might miss part of the verbal instructions. This might cause a sense of panic, because they are unsure what to do. Written instructions can prevent this, by allowing students to read along and re-read the instructions when necessary. The explanation of the final technique shows that respondent 24 is aware of the pressure instructions and explanations put on students with dyslexia.

In sum, it seems that many teachers apply valuable techniques in their lessons, and actively try to help students with dyslexia. The open answers show that a number of teachers are astutely aware of the difficulties that students with dyslexia might face. However, the results also show there is certainly room for improvement. Based on the quantitative data it would seem that a substantial number of teachers do not incorporate teaching techniques into their lessons for the benefit of students with dyslexia. This can also be observed in the responses of around a dozen respondents, who answered "no", "not really", etc. when asked whether they employed any specific strategies during their lessons (Appendix C). This means the hypothesis for this sub-question was incorrect. Even though not all teachers employ specific teaching techniques for the benefit of students with dyslexia, it seems that many others do. Further study would be required, however, to determine to what extent these methods are employed in reality, as well as their effectiveness.

4.3.3 - Sub-question c: Testing students with dyslexia

The third sub-question in this part looks at differentiation when it comes to testing. The full question was: 'in what way do they differentiate between students with dyslexia and without, when it comes to language testing?'. This question was included to compare to findings from a previous study. Anraad (2018) found, that teachers in the Netherlands mostly differentiate in the testing process. The present study therefore looked to establish whether this was also the case for its respondents. Four of the questionnaire's questions are relevant to this discussion; these are questions 10, 13, 14, and 15. Each of these questions looks at different testing aspect.

The results to these questions show that many teachers differentiate quite extensively when it comes to testing. The responses least favourable for differentiation were those to question 15; which asked whether teachers allow oral assessment when it proves necessary. However, even for this question, the results suggest that around three-quarters of teachers provides this opportunity for students with dyslexia. The results of this question also stood out because of the teachers who disagreed with the statement, the majority selected 'definitely not true of me', rather than 'mostly not true of me'. This could indicate that some teachers are more firmly opposed to this method. However, this possibility cannot be verified without further study.

The question where respondents answered most in favour of differentiation, was question 14. In an earlier study, Nijakowska (2014) found the majority of teachers allowed students with dyslexia to use more time during tests. Nevertheless, the results from the questionnaire were quite remarkable, as the teachers nearly unanimously indicated they often provide extra time for students on tests. A result likely caused by dyslexia policies in the

Netherlands. Most schools have a dyslexia policy to help teachers when it comes to dyslexia (Kohnstamm instituut, 2011), so teachers are aware that students with dyslexia require extra time to complete tests. In fact, personal experience suggests that it is not only teachers who are aware of this. It is probably among dyslexia's most well-known aspects in the Netherlands, that students with dyslexia are allowed to take longer for tests.

According to the results for question 13, it seems that less than 10 percent does take spelling into account when grading students with dyslexia. Whether teachers grade spelling mistakes is an important aspect of the grading process for students with dyslexia. According to Hughes (2010), measuring more than one ability at a time, makes the measurement of this one ability less accurate. As Hughes states this in a language testing context, instead of a dyslexia context, it is applicable to all students not just the ones with dyslexia. Hughes uses the following example to illustrate the concept of 'validity in scoring':

"A reading test may call for short written responses. If the scoring of these responses takes into account spelling and grammar, then it is not valid (assuming the reading test is meant to measure reading ability!)".

Even though this applies to all students and all aspects of language testing, grading spelling in particular can have a disproportionate effect on the grades of students with dyslexia. Yet this also shows that rather than make an exception for students with dyslexia, it would be to the benefit for all students to only grade spelling on tests that are aimed to test a student's ability to spell correctly. Furthermore, Hughes (2010) also argues that "[t]here may be occasions when, because of misspelling or faulty grammar, it is not clear what the test taker intended. In this case, the problem is with the item, not with the scoring". This means that, when it jeopardises clear communication and understanding, it is acceptable for a teacher to grade a student's spelling even when they have dyslexia. However, in circumstances where it is clear what the student meant, however, spelling not be taken into account in the grading process.

On the whole, the results for the various scale questions suggest that the vast majority of teachers know, that students with dyslexia might require special approaches during the assessment process. Particularly noteworthy was the tremendously positive response when it comes to providing extra time for students with dyslexia to complete their tests; it seems virtually all teachers were aware that this might benefit students with dyslexia. While there is no guarantee that teachers apply these methods correctly, it does show that awareness is very high among teachers in the Netherlands on this topic. It would therefore seem that the initial
expectations are indeed correct; EFL teachers in the Netherlands do seem to employ various methods of differentiation in the language testing process.

4.3.4 - Sub-question d: Difficulties when teaching students with dyslexia.

The previous sub-questions focussed on aspects of differentiation currently in use, and so the final sub-question looks at which limitations and restrictions teachers experience when they try to help students with dyslexia. The sub-question was 'what difficulties do they encounter when teaching students with dyslexia?'. An open question was selected to answer this question, because scale questions would not yield the required data. Unlike multiple choice and scale questions, an open question lets the respondents raise their own points and elaborate on it. This means the respondents are not restricted by or steered towards certain answers. Consequently, their answers highlight multiple difficulties when trying to help students with dyslexia. This section will focus on the answers mentioned by multiple teachers; the full list of responses to this question can be found in appendix C.

Several responses show that, for a number of teachers, their main hindrance is not knowing enough about dyslexia to help students effectively. Several respondents felt they lacked the required knowledge to help the students effectively. Respondent 11 for instance wrote: "I miss some information on how to help them best". Similarly, respondent 12 answered "I don't possess sufficient knowledge on dyslexia". The first research question already discussed, that teachers feel they lack the necessary knowledge on dyslexia to help students effectively. The second research question found that this lack of knowledge is often accompanied by a lack of confidence in teaching students with dyslexia. When students with dyslexia fail to learn, time and time again, the teachers can start to feel at a loss. That multiple respondents mentioned a lack of knowledge of their own accord, further emphasises the importance of additional training on the subject.

Other teachers pointed towards more practical aspects of teaching as their biggest obstacle in trying to implement differentiation. Several respondents specified a lack of time as their biggest hindrance when helping students with dyslexia, others identified large class sizes as their biggest difficulty, and some mentioned a combination of these two problems. The responses illustrate how practical obstacles can restrict teachers in trying to implement inclusive teaching. Respondent 45, for instance, writes: "[t]here is not enough time to differentiate when you have classes of 30+ students". While focussing on individual students in a class of around thirty students is problematic, it is not the only way to provide differentiated teaching. As discussed in section 4.3.2 there are teaching methods that can help students with dyslexia without individual focus. Because these methods can also be beneficial for students without dyslexia, they can be applied to the entire class. This means that class size should not restrict inclusive teaching considerably.

The methods are likely time consuming to implement at first, so this might prove challenging due to the time-hindrance mentioned by several teachers. However, they will should prove less time-consuming over time. Perhaps over time they could even prove timesaving; for instance, creating a hand-out containing the instructions for a certain assignment might well reduce the amount of time required for clarification and answering questions. Similarly, creating audio-recordings of certain texts will prove time consuming at first, but once a routine has been established it will take less time. Furthermore, both written assignments and voice recordings can be re-used for other classes.

Ideally, teachers would even have access to a data-base where they can share their own voice recordings, instructions, etc. to save even more time. For the present, however, they would have to create their own materials. Or create their own network to share materials between colleagues. The achievability of these teaching measures also depends very much on the individual teacher. Every teacher has different students, different classes, a different schedule, and different preferences, so not every teaching technique will work equally well for every teacher. A teacher pressed for time, or with a class of thirty or more students, will have to opt for a different approach than a teacher with a special needs class of around 10 students. It is therefore left to teachers to select which methods are most viable, and implement these.

The final hindrance identified the students as a possible hindrance in implementing differentiation. Several answers pointed out that the students themselves can prove to be the biggest challenge when trying to help them. Respondent 9 for instance wrote: "They keep making the same mistakes. Some mistakes seem fossilised". The term 'fossilised' suggests a futility in helping them improve. While this statement does not suggest the teacher blames the students themselves, it does imply an exasperation with dyslexia. Other respondents, however, more clearly mentioned the students as the hindrance. Respondent 46 wrote: "[t]hey often refuse special facilities because they want to do things the same way the other students do". This statement is rather similar to another respondent's answer discussed in section 4.2.3. In response to a different question, respondent 31 described ex-students, once grown-up, felt the special facilities left them unprepared for later life. Another issue raised by two respondents was in the attitude of students with dyslexia. Respondent 38 wrote that "[s]ome

[students] are stubborn or unwilling to make the extra effort they do have to make", while respondent 17 was hindered by: "[h]ow they state they Dont[sic] have to know the correct spelling because of their dyslexia. They use it as an excuse". Both respondents feel students are often unwilling to go the extra mile. While these remarks might seem overly negative towards students with dyslexia, these remarks raise a very valid point. This study has repeatedly stressed the importance of motivation when learning a new language, and how dyslexia can negatively affect motivation. Teachers can try all the inclusive teaching techniques, differentiate to their hearts content, and help their students until their hair turns grey, but if the student lost faith in their own ability they are unlikely to improve. It is up to teachers, but also parents, special needs counsellors, etc. to ensure these students maintain faith in their own abilities and the achievability of the goal. Yes, dyslexia means language learning is more difficult for them; but no, it does not mean students are unable to learn a language or pass a course.

The initial expectation for this sub-question was that the main difficulty for teachers was insufficient knowledge on dyslexia. The data revealed three main hindrances when trying to help students with dyslexia, one of which was indeed a lack of knowledge. Secondly, it seems that helping students with dyslexia is sometimes difficult due to practical reasons such as insufficient time, big classes, or a combination of these two. Lastly, some teachers also point out that the students themselves sometimes prove to be the biggest obstacle. Consequently, the data have confirmed the initial expectation and also revealed two additional difficulties.

4.3.5 - Research question 3: Classroom approaches to dyslexia.

This section's main research question was: 'how do EFL teachers in the Netherlands adapt student interactions to cater for dyslexia?'. The first sub-question was designed to measure how frequent EFL teachers encounter dyslexia in their classrooms. The second and third subquestions looked at the two major types of interaction, teaching and testing. The final subquestion aimed to establish in what ways teachers might feel limited or hindered in their abilities to effectively interact with students with dyslexia.

Based on the average class size and the percentage of children diagnosed with dyslexia, the expectation was that EFL teachers in the Netherlands would encounter it regularly in their classes. The findings of the present study show this is indeed the case. The results also showed that, while the majority of teachers aims to help students both during

lessons and during tests, there is still an imbalance between these two aspects of language teaching. In line with findings from previous studies (Anraad, 2018; Kohnstamm instituut, 2011), the present study found that teachers differentiate most during the testing process. While the data suggest the majority of teachers attempts to also help students with dyslexia during the learning phase, there also seems to be room for improvement. The limitations of the present study make it impossible to determine any degree of effectiveness, instead it can only reveal whether teachers aim to help students in these aspects.

The data also revealed several reasons why teachers might be restricted in their abilities to help students with dyslexia. The study identified three main hindrances expressed by multiple respondents. These three obstacles were: insufficient knowledge on dyslexia, practical restrictions such as number of students per class, and the students themselves. As also discussed previously, the first hindrance could be addressed by providing teachers with more instruction on how to help students with dyslexia. While the second difficulty could partially be remedied by teachers employing more effective teaching strategies, it would also require changes on a larger scale. Changing class sizes and reducing teacher workload would not only require help from the school, but probably also the government. As the majority of teachers seemed quite positive about helping students with dyslexia, the final obstacle was somewhat surprising. However, closer inspection of these answers suggest that they highlight a major pitfall for students with dyslexia. Dyslexia can greatly influence motivation (Csizér et al., 2010; Kormos and Csizér, 2010; Piechurska-Kuciel, 2008), and teachers have to be mindful of their effect on student motivation (Hornstra et al., 2010). It is important to prevent students start to feel their efforts are futile. Learning a language can be slow and difficult for people with dyslexia, so it is important to highlight the minor improvements in their language learning process. When teachers encourage the small accomplishments, instead of only highlighting their mistakes, the student is more likely to remain motivated and willing to put in the extra effort.

In short, EFL teachers in the Netherlands seem to make many changes in their student interactions to help those with dyslexia. Although it seems that teachers are generally on the right track, there also seems to be room for improvement. However, teachers should not be left to make these improvements themselves. Many teachers are forced to develop their own teaching methods, which means in many cases leaves them to reinvent the wheel. Instructing teachers on effective ways to help students with dyslexia will mean they can distribute their time more efficiently which will likely prove advantageous for both teacher and student. Moreover, not only students with dyslexia can benefit from such strategies. Students

struggling with English, even though they do not have dyslexia will also benefit from many of the methods designed to help students with dyslexia. For instance, subsection 4.3.3 discussed how grading spelling on a grammar makes the test less valid for all students, not just ones with dyslexia. To put it bluntly, helping students with dyslexia does not require them to be isolated from their peers.

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5. Conclusion

The present study used a questionnaire to look at three aspects of dyslexia in the English language classroom. It looked at teacher training on both the subject of dyslexia in general and how to help students who have it. The study also looked at teacher knowledge and confidence when teaching students with dyslexia. Lastly, it investigated classroom approaches to helping students with dyslexia. The most important findings will be recounted first. Followed by a discussion of some considerations on the study as a whole; occasionally accompanied by suggestions for improvements. Lastly, a number of recommendations will be made based on the findings from the present study. These will provide some practical advice for teachers, on how to take dyslexia into account in the foreign language classroom.

5.1 - Findings

The study initially looked at whether teachers are trained on dyslexia. The results suggest most teachers have received limited or no training on dyslexia. The qualitative results suggest that those teachers who have been trained extensively on dyslexia, have undertaken this on their own accord. In accordance with Nijakowska (2014), the majority of teachers receives little to no training on dyslexia. Anraad (2018), a study conducted in the Netherlands, also found that its participating teachers had received very little training on dyslexia.

Additionally, the results provide little reason to assume teacher training programmes are in the process of changing. The teachers-in-training who participated did not seem to differ from their certified colleagues, although their number was too low to state this with certainty. The present study did not attempt to recruit more teachers-in-training, however, in order to preserve a more representative balance between pre-service and in-service teachers. Further research would therefore be needed to establish definitively whether present teachertraining programmes include any substantial content on dyslexia.

While it seems teachers hardly receive any substantial training on dyslexia, the results did reveal that the vast majority of teachers feels such training would be beneficial. This finding is also in accordance with Nijakowska (2014) and also with Nijakowska et al., (2018). The findings on teacher training are in line with previous studies and show, that teachers in the Netherlands receive little instruction on dyslexia. At the same time, however, teachers seem remarkably eager to learn more on this subject.

The study also looked at teacher confidence when it comes to dyslexia, and found some teachers feel insecure when they teach students with dyslexia. The results show varying levels of teacher confidence when it comes to teaching students with dyslexia. Yet, the results suggest, that feelings of insecurity are not uncommon for teachers in the Netherlands. The open questions revealed that this feeling can be especially strong when dyslexic students continue to struggle or make the same type of mistake repeatedly. Yet despite the fact that teachers generally receive little training on the subject and some of them report feeling insecure, the results show that the vast majority of teachers feels willing to provide specialised teaching for students with dyslexia. A finding that was also encountered by Anraad (2018). This study found teachers generally believe students with dyslexia should receive the help they need. It also found most teachers are willing to help students with dyslexia more, but many of them are unsure how to do this exactly.

Finally, the study also looked at some classroom practices. The results show many teachers have developed their own techniques to help students with dyslexia. The responses to the open questions show these techniques often apply techniques also discussed in the Multi-sensory Structured Learning approach. Although this method is not mentioned by the respondents. The results for differentiation in testing stand out in particular. These results suggest virtually every teacher in the Netherlands is aware, that students with dyslexia require special attention when it comes to language testing. The present study suggests teachers in the Netherlands are more aware of dyslexia in the English classroom, than was found among teachers in other European countries (Nijakowska, 2014).

While the results are encouraging and suggest a high-level of awareness, they also show there is definitely room for improvement. Although a substantial number of teachers outlined effective teaching strategies to help students with dyslexia, the results also suggest many of them do little during the teaching phase. This finding is in line with other previous studies in the Netherlands by Anraad (2018) and Kohnstamm instituut (2011). Only differentiating during testing is undesirable, because the testing phase is the final stage in language learning. So, if students only receive specialised help during the final phase, it will be too late for many of them. Students would benefit much more from specialised teaching methods during the learning phase supplemented by differentiation in testing.

Some reasons why teachers might not be able to implement specialised teaching, or differentiate between students with and without dyslexia, were also investigated. Based on the results it would seem there are three common obstacles when helping students with dyslexia.

The first hindrance is a lack of knowledge, which was already included in this study. That different teachers raised this issue at different points in the questionnaire, underlines the importance of this hindrance. It is worrisome that a substantial number of teachers in the Netherlands, feel they lack the required knowledge to effectively help a disadvantaged and vulnerable group of students.

The second major hindrance was a lack of time. While it is outside the scope of this study, to see whether teachers are indeed so pressed for time they are unable to implement specialised teaching for students with dyslexia, it must be noted that many techniques designed to help those with dyslexia are also useful for other students. Students without dyslexia who struggle with English, as well as students who do not struggle with English at all, will still benefit from many of these techniques. The final major hindrance were the students themselves.

The final hindrance felt by teachers was that students with dyslexia often do not put enough effort into their language studies. Since this study only collected data from the teachers, it is impossible to judge whether this is indeed true. However, assuming this is true, it only stresses the importance of helping students with dyslexia maintain motivation. Csizér et al. (2010) and Piechurska-Kuciel (2008) both found dyslexia can negatively affect motivation. When combining their findings with this last hindrance it illustrates how important it is for teachers to ensure students with dyslexia remain motivated in their language learning.

All in all, it seems teachers are generally willing to help students with dyslexia to overcome their difficulties. Yet, due to a lack of training on dyslexia, teachers are often left to develop strategies for themselves. The majority of teachers feels training specifically aimed at dyslexia would be beneficial to teacher-training programmes, and would be valuable classroom knowledge. This is not surprising considering the Netherlands generally has a higher percentage of dyslexic students in the classroom than other countries (Kohnstamm instituut, 2011; OECD, 2019).

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5.2 - Considerations / improvements regarding the present study

Although the results from the present study yielded a valuable insight into the perspective of English language teachers in the Netherlands on dyslexia, there nevertheless remain some considerations and improvements. Chief among them is the relatively low number of respondents. Based on the diverse demographic information gathered from the respondents, it would seem the data are probably representative for teachers in the Netherlands. The respondents are varied in terms of educational background, age, and teaching experience. Additionally, the study includes respondents from all over the Netherlands. One factor that might limit the representativeness of this study is the data collection method. As discussed in the methodology chapter, the present study employed a Facebook recruitment method. The downside of this method is that it only recruits those teachers who use Facebook. However, since this was not the only employed recruitment method, as well as the prevalence of Facebook, the negative effects of this method are likely limited. Nevertheless, a larger number of respondents would have made the results even more representative for teachers in the Netherlands. A second consideration in this type of study is 'social desirability' which, as previously discussed, might skew results to a more positive and outcome, which respondents consider to be socially desirable. This possibility was anticipated beforehand, and the questions were altered in an attempt to reduce this undesirable influence. And although the results suggest teachers have answered honestly and truthfully, the possible influence of social desirability should nonetheless be kept in mind when evaluating the results. Something that the present study has aimed to do throughout.

Another consideration is the phrasing of the scale questions. In their answer, respondent 27 remarked: "[t]he likert scale questions were ambiguous sometimes". It is indeed true that the Likert scale questions could be improved further, and some questions were possibly confusing Unfortunately, however, this respondent did not list which questions they found ambiguous. One possibility is that the 'sometimes true and sometimes not true of me' answer option was considered confusing for some questions. Another possibility is that the respondent referred to partly double-barrelled question 17, and questions 9 and 19 which where phrased with negation in them. The possibility of confusion for these types of questions is discussed in section 2.1.1b. Additionally, the results provide little further evidence of confusion or ambiguity, and this remark was only expressed by one respondent. So, while ambiguity might have influenced the results for a few respondents, there is no reason to assume this problem was widespread and invalidates the results entirely.

Nevertheless, future studies could further improve the questions and attempt to reduce ambiguity even further. After all, fully eliminating ambiguity is a methodological holy grail.

A final consideration is that this study only looked at teacher confidence when it comes to dyslexia. This means the data do not include any information on regular teacher confidence, or teacher confidence when helping students without dyslexia. Since this study already aimed to collect data on a number of dyslexia related topics, and in order to limit the stress on the respondents, these questions were not included in the present study. The present study can therefore only discuss teacher confidence with regard to dyslexia in isolation; it cannot make any comparisons with typical teacher confidence.

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5.3 - Recommendations based on the current study

One recommendation surfaced repeatedly throughout the study. It is essential that teachers receive more extensive training on dyslexia. This recommendation was raised at multiple times throughout the questionnaire, and by multiple teachers. While the answers show that EFL teachers in the Netherlands are likely more knowledgeable on dyslexia than their colleagues in other European countries (Knudsen, 2012; Nijakowska, 2014; Kormos & Nijakowska, 2017; Nijakowska et al., 2018; Anraad, 2018), it also shows that there is much left to improve. This is only emphasised by the fact, that many the teachers also stressed this themselves. The recommendation is therefore aimed at the schools that employ these teachers, and teacher training programmes who train students to become tomorrow's teachers. Train these teachers how to help students with dyslexia. By teaching teachers-intraining which problems students with dyslexia often encounter, and how these can be avoided, this disadvantaged group of language learners could improve greatly in their language learning abilities. Doing that will improve the quality of English education in the Netherlands, not only for students with dyslexia, but for all students.

Since this study is unlikely to bring about sudden change in teacher training programmes, it will also include some practical recommendations for teachers who might wonder what they can do to better help students with dyslexia.

The first recommendation for teachers is, that they keep an eye out for reduced motivation or low self-confidence in students with dyslexia. It is important to avoid that students believe language learning is futile, and that they will never succeed. One practical way to achieve this, is by refraining from handing out deep fails. While students should receive a fail-grade when their performance calls for it, a deep fail will likely only make them feel they are unlikely to ever catch up. By giving them between a 5 and 5.5 (out of 10), students will know they have not met the requirements to pass, but they will feel with a little bit of extra work they might pass next time. It is also important to go over the test with the students, so they know where they went wrong, and how they can improve next time (Henneman et al., 2004).

Another practical recommendation for teachers is to provide the students with written instructions or handouts of assignments, and dividing instructions into smaller steps. Dyslexia causes these students to struggle more with verbal instructions and to remember a list of instructions clearly. By providing written instructions for them (e.g. on the board, on paper, or online), the students can reread what is expected of them at their own leisure (Pfenninger,

2015). This will reduce anxiety and improve retention (Schneider and Kulmhofer, 2016). Additionally, dividing tasks into smaller steps can also help students with dyslexia, since dyslexia can cause problems in prioritising. Providing written instructions will not only benefit students with dyslexia, but other students as well. Students with ADHD, who struggle to focus on long instructions, or students with a hearing-impairment will also benefit from this; to just name two.

A third recommendation for teachers is to provide students with audio-recordings of written texts, as well as explicitly teach spelling and pronunciation. This first aspect is probably the most time-consuming recommendation on this list, but does not have to be impossibly time-consuming. Especially as modern technology, such as the internet and textto-speech software, can prove greatly beneficial for this purpose. The audio-recordings can be stored and used again for future classes, teachers can exchange audio recordings of certain texts (this should be especially easy when a school has multiple English-teachers), or by looking for texts that already have an audio-recording. By engaging both the audio and visual sense during the learning process, students with dyslexia are aided in their learning. As students with dyslexia have more difficulties breaking down language into its smallest components (Fischbach et al., 2014; Hatcher & Snowling, 2002; Kuerten, 2019; Kormos, 2017; Menghini et al., 2011; Nijakowska et al., 2018; Reid-Lyon et al., 2003; SDN, 2016), it is helpful for them to hear the text while they read it. This allows them to more easily connect certain sounds to certain letters. And when they fail to grasp the meaning in either medium, they can fall back on the other medium to ensure understanding. Similarly, teachers are recommended to explicitly explain pronunciation and spelling, especially in earlier grades. Student with dyslexia often fail to learn how certain sound segments are linked to certain letters, because of this inability to divide words into their smallest sound components. Teaching pronunciation and spelling explicitly will help these students overcome this hurdle much more easily and effectively than through implicit teaching (Schneider and Kulmhofer, 2016).

A final recommendation for teachers is that tests should only assess on the intended ability. Grading spelling in a grammar test means students could fail these tests, even though they might actually know the grammar. By grading secondary abilities, the validity of the test is reduced. This holds for all students not only those with dyslexia. So, by only grading spelling when it impedes communication, or on spelling tests, the students can focus on what is important. By applying this method to all students, not just those with dyslexia, it means there is no double standard in grading. This means the grading process is less time-

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consuming for the teacher, and there is no chance of stigmatisation between students with dyslexia and without.

Students with dyslexia might struggle with seemingly simple tasks, or fail to grasp basic instructions. By knowing what causes dyslexia, not just what its symptoms are, teachers can adapt their curriculum in minor ways that will help these students tremendously. By keeping in mind that something that seems simple to you, can be a very challenging to someone with dyslexia, the teaching process can be made more effective. It is important to also help these students during the teaching phase, not just during the testing phase. Language tests are meant to evaluate what students have learnt. So, if students are not aided during the learning phase, the extra aid during the tests will likely not be enough for them to pass. It is also important to keep in mind, that many of these measures do not mean students without dyslexia receive less of the teacher's time and effort. Instead many of these measures can benefit them just as well. Differentiation does not mean dividing the class into different groups and teaching them separately. It means looking at the requirements of different students and adapting the lessons to better suit everyone.

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Appendix:

Appendix A – Questionnaire

The questionnaire, used in this study, is listed in this appendix. As the questionnaire was administered online, each section was presented on a separate page. The appendix presents the questionnaire in a similar page-by-page manner.

A preview copy of the original questionnaire is available at: <u>https://forms.gle</u>/<u>hG8dEUJBsPk4wJqj7</u>

For accessibility purposes the preview version does not have any questions marked as obligatory. The following version illustrates which questions were marked as obligatory in the original questionnaire, by means of an *.

Page 1:

Teaching students with dyslexia

Dear participant,

First of all, thank you for taking the time to fill in my questionnaire. My name is Stijn Huys and I am a master student of the Language and Communication Coaching programme at the Radboud University.

Filling in the questionnaire should take approximately 10 minutes. There are a total of 32 questions in this questionnaire, which starts with several multiple choice questions, followed by 20 'Likert scale' questions, and finishes with a number of open questions.

In order to participate in this study you need to either:

- be a teacher of English at a secondary school (middelbare school) in the Netherlands.
- study to be a teacher of English at a secondary school (middelbare school) in the Netherlands, and have at least some (internship)experience with teaching English.

For the purposes of this questionnaire a student can be considered as being dyslexic, when they have been tested for and diagnosed with dyslexia.

The data collected as part of this questionnaire will be made fully anonymous and will NOT be shared with any 3rd party. Your participation is voluntarily which means you can withdraw your participation at any time during the questionnaire by leaving the page. Your data will not be stored if you leave the questionnaire before clicking submit.

Should you want more information about this research study, now or in future, please contact me via email at

Page 2:

Part A - General Information

I am (sex) *

- Female
- Male
- Other

My Age is *

- 25 years or below
- 26-35 years
- 35-45 years
- 46 years or above

My highest level of completed education is *

- Bachelor's degree (or its equivalent)
- Master's degree (or its equivalent)
- Other...

I am (certificate) *

- training to be an English teacher
- a certified English teacher

I have been teaching English for *

- Less than 2 years
- 3-5 years
- 6-10 years
- more than 10 years
- I teach as part of my internship

This year I teach (more than one answer is possible) *

- Classes where there are NO students with dyslexia
- Classes where there are some students with dyslexia (between 1 and 25% has dyslexia)
- Special classes for students with dyslexia (over 25% of students have dyslexia)

I teach in the following province(s) (more than one answer is possible) *

- Brabant
- Gelderland
- Limburg
- Other...

Page 3:

Part B - Likert Scale Questions

Please choose the option that is most applicable to your situation.

- 1 =definitely not true of me
- 2 = mostly not true of me
- 3 = sometimes true and sometimes not true of me
- 4 = mostly true of me
- 5 = definitely true of me

Question 21 is a question about the scale question. If you have any remarks in relation to any of the questions or want to clarify an answer you can do so there. Please note however, that the question is optional and answering it is not required to complete the questionnaire.

- 1. I have a clear understanding of what 'dyslexia' is. *
- 2. I often encounter dyslexic students in my daily work. *
- 3. I learnt about dyslexia during my studies at college / university / other teacher training institutions. *
- 4. I have developed my own techniques for teaching English to dyslexic students. *
- 5. I learnt about teaching English to dyslexic students in my courses at college / university / teacher training institutions. *
- 6. I believe teacher training programmes should include a course on dyslexia and how to teach dyslexic students. *
- 7. I feel I need more information on the language teaching methods to be able to successfully apply them to dyslexic students. *
- 8. I know how to develop learning strategies for my dyslexic students. *
- 9. I feel specific training on the subject of dyslexia is NOT necessary due to the low number of students with dyslexia. *
- 10. I know how to grade my dyslexic students'. *
- 11. I believe I possess sufficient knowledge on dyslexia to teach students with dyslexia. *
- 12. I am confident in my abilities to help dyslexic students during my classes. *
- 13. I do not assess the spelling of dyslexic students. *
- 14. I provide extra time for dyslexic students to do a written task. *
- 15. If it is necessary I orally assess my dyslexic students. *
- 16. I would make changes to my curriculum if it benefits students with dyslexia. *
- 17. I would like to help my dyslexic students more, but I don't know how. *
- 18. I incorporate special learning strategies in my lessons for the benefit of my dyslexic students. *
- 19. I believe it is NOT necessary to differentiate between dyslexic and non-dyslexic students, all students should receive the same teaching. *
- 20. I often feel unsure how to help dyslexic students when they struggle. *
- 21. Do you have any information that you would like to add in relation to your answers from any of these scale questions? Please note the question number in your answer. (Optional)

Page 4:

Part C - Open Questions (Optional)

The following questions are optional. If you do not want to answer one or more of the questions you can leave the answer blank and continue to the next window to submit the questionnaire.

- 1. In your opinion, what hinders you most when helping students with dyslexia during their language learning journey?
- 2. Do you employ any specific strategies during your lessons to help students with dyslexia? If so, which one(s)?

3. Do you have any final remarks in regard to this questionnaire?

- 4. Would you be willing to participate in an interview (around 45 minutes) to further elaborate on this topic? If so please write down your e-mail address. This will only be used to contact you to arrange the interview, it will not be included in any of the data lists.
- 5. Would you like to be notified of the findings of this study? If so please write down your e-mail address. This will only be used to send you an overview of the results, it will not be included in any of the data lists.

Page 5:

You have now reached the end of this questionnaire. You can upload your answers by clicking the submit button.

I would like to thank you once again for taking the time to participate. If you left your contact information in order to take part in the interviews I will be in touch within 2 weeks to discuss the specifics.

In case you have any questions / remarks / comments in regard to this questionnaire, please feel free to email me at

Kind regards, Stijn Huys

Appendix B – Quantitative results

The results for the statistical analyses of the quantitative results are listed in this appendix. The questions are presented per overall group. The questions per group are as follows: Group 1: 1 - 3 - 5 - 6 - 7 - 9

Group 2: 11 - 12 - 16 - 17 - 19 - 20Group 3: 2 - 4 - 8 - 10 - 13 - 14 - 15 - 18

Group 1: (questions 1 - 3 - 5 - 6 - 7 - 9)

Frequency distribution for scale question 1								
Statement: I have a clear understanding of what 'dyslexia' is.								
	Overall resu	ılts	Group frequ	uency results				
	Frequency	Percentage	In-service	Pre-service				
Answer	(f)	(%)	(f)	(f)				
Definitely not true of me	0	0.0	0	0				
Mostly not true of me	1	2.1	0	1				
Sometimes true and	1	2.1	0	1				
sometimes not true of me								
Mostly true of me	20	42.6	17	3				
Definitely true of me	25	53.2	23	2				
Total	47	100%	40	7				

Frequency distribution for scale question 3

requerey distribution for scale question 5									
Statement: I learnt about dyslexia during my studies at college / university /									
other teacher training institutions.									
	Overall resu	ults	Group frequ	uency results					
	Frequency	Percentage	In-service	Pre-service					
Answer	(f)	(%)	(f)	(f)					
Definitely not true of me	13	27.7	13	0					
Mostly not true of me	15	31.9	13	2					
Sometimes true and	9	19.1	8	1					
sometimes not true of me									
Mostly true of me	5	10.6	2	3					
Definitely true of me	5	10.6	4	1					
Total	47	100%	40	7					

Frequency distribution for scale question 5

Statement: I learnt about teaching English to dyslexic students in my courses at									
college / university / teacher training institutions.									
	Overall resu	ults	Group frequ	uency results					
	Frequency	Percentage	In-service	Pre-service					
Answer	(f)	(%)	(f)	(f)					
Definitely not true of me	21	44.7	19	2					
Mostly not true of me	18	38.3	14	4					
Sometimes true and	7	14.9	6	1					
sometimes not true of me									
Mostly true of me	0	0.0	0	0					
Definitely true of me	1	2.1	1	0					
Total	47	100%	40	7					

Frequency distribution for scale question 6

Statement: I believe teacher training programmes should include a course on dyslexia and how to teach dyslexic students.

dysichia and now to teach dysichic students.								
	Overall resu	ults	Group frequency results					
	Frequency	Percentage	In-service	Pre-service				
Answer	(f)	(%)	(f)	(f)				
Definitely not true of me	0	0.0	0	0				
Mostly not true of me	2	4.3	2	0				
Sometimes true and	1	2.1	1	0				
sometimes not true of me								
Mostly true of me	16	34.0	13	3				
Definitely true of me	28	59.6	24	4				
Total	47	100%	40	7				

Frequency distribution for scale question 7

Statement: I feel I need more information on the language teaching methods to be able to successfully apply them to dyslexic students.

	Overall resu	ılts	Group frequency results		
	Frequency	Percentage	In-service	Pre-service	
Answer	(f)	(%)	(f)	(f)	
Definitely not true of me	4	8.5	4	0	
Mostly not true of me	4	8.5	4	0	
Sometimes true and	16	34.0	14	2	
sometimes not true of me					
Mostly true of me	12	25.5	10	2	
Definitely true of me	11	23.4	8	3	
Total	47	100%	40	7	

Frequency distribution for scale question 9

Statement: I feel specific training on the subject of dyslexia is NOT necessary, due to the low number of students with dyslexia.

	Overall resu	ults	Group frequency results		
	Frequency	Percentage	In-service	Pre-service	
Answer	(f)	(%)	(f)	(f)	
Definitely not true of me	31	66.0	26	5	
Mostly not true of me	9	19.1	8	1	
Sometimes true and	4	8.5	3	1	
sometimes not true of me					
Mostly true of me	3	6.4	3	0	
Definitely true of me	0	0.0	0	0	
Total	47	100%	40	7	

Group 2: (questions 11 - 12 - 16 - 17 - 19 - 20) Frequency distribution for scale question 11

Statement: I believe I possess sufficient knowledge on dyslexia to teach students with dyslexia

dyslex1a.						
	Overall resu	ults	Group frequency results			
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)
Definitely not true of	1	2.1	0	0	0	1
me						
Mostly not true of	5	10.6	3	1	1	0
me						
Sometimes true and	12	25.5	3	3	1	5
sometimes not true						
of me						
Mostly true of me	22	46.8	3	5	6	8
Definitely true of me	7	14.9	0	1	2	4
Total	47	100%	9	10	10	18

Frequency distribution for scale question 12

Statement: I am confident in my abilities to help dyslexic students during my classes.								
	Overall resu	ılts	Group fre	Group frequency results				
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10		
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)		
Definitely not true of	1	2.1	0	0	0	1		
me								
Mostly not true of	3	6.4	2	1	0	0		
me								
Sometimes true and	14	29.8	4	3	3	4		
sometimes not true								
of me								
Mostly true of me	24	51.1	3	5	7	9		
Definitely true of me	5	10.6	0	1	0	4		
Total	47	100%	9	10	10	18		

Frequency distribution for scale question 16

Statement: I would make changes to my curriculum if it benefits students with dyslexia.							
	Overall resu	ults	Group fre	quency resul	ts		
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10	
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)	
Definitely not true of	2	4.3	0	0	0	2	
me							
Mostly not true of	8	17.0	2	2	3	1	
me							
Sometimes true and	10	21.3	3	1	1	5	
sometimes not true							
of me							
Mostly true of me	14	29.8	2	5	3	4	
Definitely true of me	13	27.7	2	2	3	6	
Total	47	100%	9	10	10	18	

Frequency distribution for scale question 17

Statement: I would like to help my dyslexic students more, but I don't know how.								
	Overall resu	ılts	Group fre	Group frequency results				
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10		
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)		
Definitely not true of	5	10.6	0	0	1	4		
me								
Mostly not true of	10	21.3	0	2	3	5		
me								
Sometimes true and	10	21.3	2	1	2	5		
sometimes not true								
of me								
Mostly true of me	18	38.3	5	6	3	4		
Definitely true of me	4	8.5	2	1	1	0		
Total	47	100%	9	10	10	18		

Frequency distribution for scale question 19

Statement: I believe it is NOT necessary to differentiate between dyslexic and non-dyslexic students, all students should receive the same teaching.

statents, un statents should receive une sunte teaching.									
	Overall results		Group frequency results						
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10			
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)			
Definitely not true of	18	38.3	2	4	4	8			
me									
Mostly not true of	14	29.8	5	3	2	4			
me									
Sometimes true and	12	25.5	2	2	4	4			
sometimes not true									
of me									
Mostly true of me	2	4.3	0	1	0	1			
Definitely true of me	1	2.1	0	0	0	1			
Total	47	100%	9	10	10	18			

Frequency distribution for scale question 20

Statement: I often feel unsure how to help dyslexic students when they struggle.								
	Overall resu	ılts	Group fre	quency resul	lts			
	Frequency	Percentage	< than 2	3-5 years	6-10	> 10		
Answer	(f)	(%)	years (f)	(f)	years (f)	years (f)		
Definitely not true of	4	8.5	0	0	1	3		
me								
Mostly not true of	8	17.0	0	1	2	5		
me								
Sometimes true and	17	36.2	2	4	3	8		
sometimes not true								
of me								
Mostly true of me	16	34.0	6	4	4	2		
Definitely true of me	2	4.3	1	1	0	0		
Total	47	100%	9	10	10	18		

Group 3: (questions 2 – 4 – 8 – 10 – 13 – 14 – 15 – 18) Frequency distribution for question 2

Statement: I often encounter dyslexic students in my daily work.		
Answer	Frequency (f)	Percentage (%)
Definitely not true of me	0	0.0
Mostly not true of me	3	6.4
Sometimes true and sometimes not	1	2.1
true of me		
Mostly true of me	10	21.3
Definitely true of me	33	70.2
Total	47	100%

Frequency distribution for question 4

Frequency distribution for question 4			
Statement: I have developed my own techniques for teaching English to			
dyslexic students.			
AnswerFrequency (f)Percentage (%)			
Definitely not true of me 1 2.1			
Mostly not true of me 6 12.8			
Sometimes true and sometimes not	14	29.8	
true of me			
Mostly true of me 24 51.1			
Definitely true of me 2 4.3			
Total 47 100%			

Frequency distribution for question 8

Statement: I know how to develop learning strategies for my dyslexic students.			
AnswerFrequency (f)Percentage (%)			
Definitely not true of me	0	0.0	
Mostly not true of me	11	23.4	
Sometimes true and sometimes not	16	34.0	
true of me			
Mostly true of me 16 34.0		34.0	
Definitely true of me 4 8.5		8.5	
Total	47	100%	

Frequency distribution for question 10

Statement: I know how to grade my dyslexic students.		
Answer Frequency (f) Percentage		Percentage (%)
Definitely not true of me	1	2.1
Mostly not true of me	0	0.0
Sometimes true and sometimes not	7	14.9
true of me		
Mostly true of me	26	55.3
Definitely true of me	13	27.7
Total	47	100%

Statement: I do not assess the spelling of dyslexic students.		
Frequency (f)	Percentage (%)	
1	2.1	
3	6.4	
10	21.3	
12	25.5	
21	44.7	
47	100%	
	of dyslexic studenFrequency (f)1310122147	

Frequency distribution for question 13

Frequency distribution for question 14

Statement: I provide extra time for dyslexic students to do a written task.		
Answer	Frequency (f)	Percentage (%)
Definitely not true of me	0	0.0
Mostly not true of me	0	0.0
Sometimes true and sometimes not	2	4.3
true of me		
Mostly true of me	5	10.6
Definitely true of me	40	85.1
Total	47	100%

Frequency distribution for question 15

Statement: If it is necessary, I orally assess my dyslexic students.		
Answer Frequency (f) Perce		Percentage (%)
Definitely not true of me	6	12.8
Mostly not true of me	3	6.4
Sometimes true and sometimes not	3	6.4
true of me		
Mostly true of me	14	29.8
Definitely true of me	21	44.7
Total	47	100%

Frequency distribution for question 18

Statement: I incorporate special learning strategies in my lessons for the		
benefit of my dyslexic students.		
Answer Frequency (f) Percentage (%		Percentage (%)
Definitely not true of me	5	10.6
Mostly not true of me 14 29.8		29.8
Sometimes true and sometimes not	13	27.7
true of me		
Mostly true of me 12 25.5		25.5
Definitely true of me 3 6.4		6.4
Total	47	100%

Appendix C – Qualitative results

The responses to the open questions are listed in this appendix.

Question 21: Do you have any information that you would like to add in relation to your answers from any of these scale questions? Please note the question number in your answer. (Optional)

Resp.	Answer
8	2) I teach at an ISK-school where learners have a variety of backgrounds. Dutch is
	a second or sometimes third language for these learners and assessing dyslexia in
	our population of learners is unreliable and therefore often not formally
	diagnosed.
9	In general, I do know a bit about dyslexia and student who are diagnosed with
	dyslexia show signs which are clear to me. Helping them by giving them extra
	time in some way or form does seem to help during tests. Applying specific
	teaching strategies still proves to be difficult mainly due to a lack of any.
22	Phonetic spelling is seen as OK except in irregular verbs
24	Although I differentiate between dyslexic and regular students, regular students
	can benefit from the same strategies provided specifically for the dyslexic
	students.
27	As an English teacher I focus on teaching English as a lingua franca, the ability to
	communicate with someone who doesn't speak your mother tongue. That means if
	the dyslexia is really hindering the communication I will have to grade it
	accordingly.
31	I found that when I asked my mature dyslexic students how I could help them,
	they told me that they didn't need anything other than extra time. I also found that
	the scala of tools was too broad to be practical. In addition, my mature students
	said, looking back, the support tney had did not prepare them for unsupported real
	life where they had to write letters and read texts without aides, and were judged
	for their work as any other employee. Skills were more related to coping
40	I did receive extra training at work and read some books about this subject.
42	Ik ben naast docente Engels (20+jaar) 6 jaar geleden afgestudeerd als Master Sen,
	gespecialiseerd in lezen en dyslexie en begeleid in die hoedanigheid dyslectische
	leerlingen
44	We have policy with a spelling mistake that we mark 1/2 point, but dyslexic
	students we mark 1/4.

Question 1: In your opinion, what hinders you most when helping students with dyslexia during their language learning journey?

Resp.	Answer
2	lack of time
3	The fact that I cannot actually "see inside their heads".
4	Finding out who they are, how much they suffer from their dyslexia and when this
	is clear, to find the time to assist them personally.
5	Lack of time and the fixed method of assessment - I'd prefer to be able to (also)
	assess students orally
7	nvt
8	I don't feel confident in my abilities to determine dyslexia in learners
9	They keep making the same mistakes. Some mistakes seem fossilised.
10	Lack of teaching strategies.

11	I miss some information on how to help them best
12	I don't possess sufficient knowledge on dyslexia.
13	The fact that some have great difficulty memorizing vocabulary
14	Knowledge
16	Difficult to fit into regular lessons, mostly due to lack of time
17	How they state they Dont have to know the correct spelling because of their
	dyslexia. They use it as an excuse
18	Textbooks
20	knowledge of how to help them
21	The level of complexity I sometimes encounter, eventhough I work at a 'regular'
	vocational school.
22	There are more forms of dyslexia
23	Too many children too little time
24	Not knowing on what aspects of language learning the learner's dyslexia has
	influence. This is different for each individual and there is no transparency
	between the testers, test scores, and teachers.
25	My ability to learn them different strategies to remember the grammar rules.
26	time restraints
27	Too little time to differentiate enough between pupils who think English is hard
	either way, the dyslexic pupils and the other pupils who deserve just as much of
	my attention be it personal or via my class activities
	my attention, be it personal of via my class activities.
29	Time to spend with the students on how to study
29 30	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out
29 30	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs.
29 30 31	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single
29 30 31	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach
29 30 31 32	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn
29 30 31 32 33	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them
29 30 31 32 33 36	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them.
29 30 31 32 33 36 38	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make.
29 30 31 32 33 36 38 39	Time to spend with the students on how to studyNothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs.the symptoms and what helps and what doesn't is too varied to have a single classroom approachThe way they learnOnly knowing how to grade them, not how to guide / assist themI don't have the time to help them.Some are stubborn or unwilling to make the extra effort they do have to make.The difference between pupils with dyslexia. For instance, some can read and
29 30 31 32 33 36 38 39	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and
29 30 31 32 33 36 38 39	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I
29 30 31 32 33 36 38 39	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils.
29 30 31 32 33 36 38 39 40	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't
29 30 31 32 33 36 38 39 40 41	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore.
29 30 31 32 33 36 38 39 40 41	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore. Not having enough knowledge on the subject
29 30 31 32 33 36 38 39 40 41 44	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore. Not having enough knowledge on the subject Time
29 30 31 32 33 36 38 39 40 41 44 45	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore. Not having enough knowledge on the subject Time There is not enough time to differentiate when you have classes of 30+ students
29 30 31 32 33 36 38 39 40 41 44 45 46	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore. Not having enough knowledge on the subject Time There is not enough time to differentiate when you have classes of 30+ students They often refuse special facilities because they want to do things the same way
29 30 31 32 33 36 38 39 40 41 44 45 46	Time to spend with the students on how to study Nothing really hinders me, it always helps to get to know the students and find out what the student with dyslexia actually needs. the symptoms and what helps and what doesn't is too varied to have a single classroom approach The way they learn Only knowing how to grade them, not how to guide / assist them I don't have the time to help them. Some are stubborn or unwilling to make the extra effort they do have to make. The difference between pupils with dyslexia. For instance, some can read and write quite well, while others seem to have so much difficulty with reading and writing that it feels like an imposaible task to them to do so in another language. I really feel like I don't know how to properly help these pupils. When they really struggle, and my "normal" strategies for helping them don't work. Then I don't know what to do anymore. Not having enough knowledge on the subject Time There is not enough time to differentiate when you have classes of 30+ students They often refuse special facilities because they want to do things the same way the other students do.

Question 2: Do you employ any specific strategies during your lessons to help students with dyslexia? If so, which one(s)?

Resp.	Answer
2	Yes. Making vocabulary visual, reading texts aloud, focussing on pronounciation
3	The most important thing I do is acknowledge their problem, so they won't suffer
	too much anxiety because of their problem

4	Writing words out on the board, providing extra time, encouraging them to write	
	despite spelling mistakes/differences.	
5	Learning strategies, especially how to study vocabulary and common phrases. I	
	always especially advise my students to copy difficult words/phrases	
	handwritten.	
6	Yes, on how to study words the best. (which also goes for regular students)	
7	no, only different grading	
8	I can't say I employ any specific strategies to help students with dyslexia that	
	aren't a part of the normal toolkit I might use to help my specific group of	
	learners and their Dutch language deficiency, e.g. tasks with more visually	
0	centric input/instructions.	
9	Specifically ask those students whether they understood the material.	
10	Not really, but I usually give tips when spelling difficult words.	
13	I often use Quizlet and try to minimize written tests.	
14	no	
16	Teach different learning strategies, work with digital materials to support	
1.7	learning	
17	I read aloud, I try to explain sounds and compare the sounds and spelling to L1	
18	More time, use of tools	
20	no	
21	Read aloud, practise pronunciation while showing the written word/text.	
22	Spelling help - how many letters are there in a specific word? Explain letter order	
23	No	
24	I use visuals to support spoken instructions and explanations. I provide audio and	
	text support to dyslexic learners when only one of the skills is taught. I provide	
	dyslexic learners with an additional personal instruction to get them on task. I	
	provide copies or handout of the explanation of grammar written or shown on the	
	smartboars so the learners can focus on getting the hang of the rule and are not	
25	No, but I would want to	
25	no, but i would want to.	
20		
27	we have teachers who are certified to provide extra support to dystexic pupils,	
29	Not really	
2)	Not always. I try to offer a variety of strategies	
31	they all appreciate extra time	
33	No	
26	No	
20	NO	
30	with listening books. And they always have to write down the vocabulary at least	
	once	
39	If I have a class aid. I let him/her sit with the dyslexic pupils.	
	When we do a reading task, I model the task.	
	If possible I let texts be read to them.	
40	Probably too little. I do give them extra time and encourage students to listen to	
	the material.	

41	Give them more time to finish a task, give the opportunity to listen to written
	texts.
44	No
45	No
46	I read aloud a lot, I use the computer whenever I can, use dictionaries on their
	phones
47	I do not grade their spelling

Question 3: Do you have any final remarks in regard to this questionnaire?

Resp.	Answer
2	no
7	no
8	Interesting topic! I would agree with the sentiment that dyslexia is a topic that
	could do with more coverage in teacher training courses.
10	I teach in a bilingual school. I only notice a difference when it comes to writing - mostly spelling but sometimes they are also weak in grammar. I can ignore the spelling mistakes (as long as it is phonetically correct) but if it would be great to learn strategies to help them with grammar
13	No
14	no
18	No
20	nope
22	Wonder what tips you seem to have
23	No
24	My regular teacher trainee course in the Netherlands did not focus on specific learning difficulties. This was missing from the programme. I gained my knowledge through an exchange year in England where I specifically chose a subject related to learning difficulties.
26	no
27	The likert scale questions were ambiguous sometimes.
29	No
30	No
33	Eye opener! Have been teaching for 9 years (of which 6 years English) and always been aware of how to compensate grades of dyslectic students but never of the possibility to teach them Strategies to learn the language.
36	Does it help to print out tests on A3?
40	Spelling isn't taken into account, is they are dyslexic mistakes, and written phonatically. When it is a grammar mistake, it does count, but the mistake only gets counted half.
44	It shouldn't be the teachers responsibility only. This is why there are remedial teachers who can really help the students. Every student with dyslexia has different needs. A remedial teacher can meet those needs.
46	Students in secondary education can use things like text to speech software. Perhaps some questions about that? I am also dyslexia coach at my school.
47	No

Appendix D – Preliminary topic list

This appendix shows the topic list which was initially prepared for the interviews (before they were cancelled.

Main Questions:	Additional Questions:
Is there a schoolwide dyslexia policy? Or	Have you ever discussed a/this dyslexia
one within the English department?	policy with your colleagues?
C I I I I I I I I I I I I I I I I I I I	r y y y y y y
	Do you ever discuss with colleagues how
	you help students with dyslexia?
Do you provide extra support for students	Could you tell me more about this?
with dyslexia during the lessons?	Which factors play a role in this decision?
Why or why not?	- Available time
	- Confidence on subject
	- Student needs
	- Class needs
In your opinion, what hinders you most	Would you care to elaborate on that?
when helping students with dyslexia during	Think of things such as
their language learning journey?	- Student willingness
	- Ability to help
	- Lesson time
	- School policy
	- Etc.
What is, in your opinion, the best way to	If no answer: What is the reason you
help students with dyslexia during the	struggle to answer this question?
English lessons?	
Do you treat your students with dyslexia	In terms of:
differently from students without dyslexia?	- Tests
Why or why not?	- Lessons
	- Help
	- Explanation
	Do you employ any specific learning
	strategies developed to help students with
	dyslexia?
	- For example MISL method.
Do you believe your leacher training	Do you think teacher training programmes
to hole students with learning difficulties	should focus more on students with special
specifically dyslavia?	needs, such as dysiexia, ADHD, etc?
Why or why not?	
What is your opinion on inclusive teaching	Inclusive teaching: adapting the general
to help students with dyslevia?	lesson programme to better address the
to help students with dystexia:	needs and difficulties of students with
	dyslexia and enhance their learning
	experience.

Appendix E – Recruitment method 1: Schools

This appendix lists the e-mails sent to schools in the Nijmegen area. The first e-mail was sent to all schools listed below. A second e-mail was a reminder, which was sent around a week and a half later. The second e-mail was sent to the schools that had not replied by that point. Replies to emails from schools were handled individually.

<u>Mail 1:</u>

L.S.

Voor mijn Masterscriptie ben ik op zoek naar docenten Engels die deel willen nemen aan mijn onderzoek. In dit kader benader ik het [SCHOOL] in de hoop docenten Engels te bereiken die hier lesgeven. Mijn vraag is dan ook of het mogelijk is mij in contact te brengen met diegene die mij hiermee verder kan helpen, bijv. een conrector of hoofd van de talensectie. Voor mijn onderzoek hoeven de docenten enkel een vragenlijst (van ongeveer 10 minuten) in te vullen. Het onderzoek zal dus geen lestijd in beslag nemen.

Bij voorbaat dank en met vriendelijk groet, Stijn Huys Masterstudent Language and Communication Coaching aan de Radboud Universiteit

<u>Mail 2:</u>

L.S.

Graag breng ik mijn onderstaande mail nogmaals onder de aandacht, aangezien deze door de meivakantie wellicht aan uw aandacht ontsnapt is.

Met vriendelijk groet, Stijn Huys

List of the schools approached in the Nijmegen area:

- Canisius college:
 - -
 - -
 - -
 - Mail 1 op 28/04/2019
 - Mail 1 nogmaals op 09/05/2019
- Citadel college:
 - -
 - -
 - -
 - Mail 1 op 28/04/2019
 - Mail 2 op 09/05/2019

Dominicus College:

- -

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- Mail 1 op 28/04/2019
- Mail 2 op 09/05/2019

Kandinsky College

- -
- -
- Mail 1 op 28/04/2019
- Vragenlijst gestuurd op 07/05/2019
- Karel de Grote College:
 - -
 - -
 - Mail 1 op 28/04/2019
 - Mail 2 op 09/05/2019
 - Vragenlijst gestuurd op 09/05/2019
- Lyceum Elst:
 - -
 - -
 - -
 - Mail 1 op 28/04/2019
 - Mail 2 op 09/05/2019

• Maaswaal College – Veenseweg:

- -
- -
- Mail 1 op 28/04/2019
- Gereageerd op 06/05/2019
- Mail 2 op 06/05/2019 (brief en link naar vragenlijst)
- Mondial College Leuvensbroek:
 - -
 - -
 - -
 - Mail 1 op 28/04/2019
 - Afgemeld op 06/05/2019
- Montessori College havo/vwo Nijmegen:
 - -
 - -
 - -
 - Mail 1 op 28/04/2019
 - Mail 2 op 09/05/2019

- Notre Dame des Anges Ubbergen
- -
- Mail 1 op 28/04/2019
- Mail 2 op 09/05/2019

NSG Groenewoud:

- Mail 1 op 28/04/2019
- Afgemeld op 06/05/2019

Pontem College – Akkerlaan:

- -

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- Mail 1 op 28/04/2019
- Vragenlijst gestuurd op 09/05/2019
- SSGN:

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- -
- -
- Mail 1 op 28/04/2019
- Mail 2 op 09/05/2019

Stedelijk Gymnasium:

- -
 - -

 - Mail 1 op 28/04/2019
 - Mail 2 op 09/05/2019

Appendix F – Recruitment method 2: Facebook

The following message was posted in the closed group "Leraar Engels" on Facebook; which can be found at: <u>https://www.facebook.com/groups/526713250845132/</u>.

Beste docent Engels,

Mijn naam is Stijn Huys en ik ben bezig met het schrijven van mijn masterscriptie voor de opleiding Language en Communication Coaching aan de Radboud Universiteit Nijmegen.

Ik heb een onderzoek opgezet waarin ik de status van dyslexie in het Engels onderwijs op middelbare scholen onderzoek. Voor het onderzoek ben ik geïnteresseerd in de meningen van zowel ervaren docenten Engels als docenten Engels in opleiding. Met behulp van een korte enquête hoop ik een duidelijk beeld te krijgen hoe docenten over verschillende aspecten van dyslexie denken en te kunnen zien wat de positie is van dyslexie in het huidige onderwijs binnen het vak Engels.

Wilt u deelnemen aan dit onderzoek?

De enquête is in het Engels en het invullen zal ongeveer **10 minuten** duren. Het is belangrijk dat u werkzaam bent als docent Engels op een middelbare school of een docentenopleiding volgt. Voor deelname als docent in opleiding is het belangrijk dat u al (stage)ervaring hebt.

Deelname aan de enquête is geheel **anoniem** en **vrijblijvend**. Aan het begin van de vragenlijst staat meer informatie, mocht u verder nog vragen hebben kunt u die per mail aan mij richten. Indien u geïnteresseerd bent in de resultaten van deze enquête kunt u aan het einde van de vragenlijst uw email adres achterlaten of u kunt dit per mail laten weten.

De enquête kunt u via de onderstaande link bereiken. Gezien de huidige drukte i.v.m de eindexamens is het sluiten van de vragenlijst verlengt. Het invullen van de vragenlijst kan **tot** en met 1 juni.

https://forms.gle/hG8dEUJBsPk4wJqj7

Bij voorbaat dank en met vriendelijke groet, Stijn Huys

Population figure and population density, divided per province, in the Netherlands on 1 January 2019.		
Province	Population figure ¹	Population density ²
Zuid-Holland	3.068.520	1361
Noord-Holland	2.403.695	1071
Noord-Brabant	2.156.781	519
Gelderland	1.743.829	417
Utrecht	1.109.787	904
Limburg	971.164	520
Overijssel	963.229	348
Friesland	544.197	194
Groningen	501.932	251
Drenthe	416.623	187
Flevoland	337.932	295
Zeeland	324.655	215

Appendix G – Population figure from CBS

¹ Inhabitants aged 15 and over.

² Number of inhabitants / km²

Source: CBS

Accessed: 10 October 2019

URL: <u>https://opendata.cbs.nl/statline/#/CBS/nl/dataset/70072ned/table?ts=1570790904696</u> Filters applied:

- 1. <u>Regio's</u> > <u>Provincies</u> > all checked
- 2. <u>Perioden</u> > <u>Jaren</u> > <u>2019</u> checked
- 3. <u>Onderwerpen</u> > <u>Bevolking</u> > <u>Bevolkingssamenstelling op 1 januari</u> > <u>Bevolking 15</u> jaar of ouder (Inwoners 15 jaar of ouder checked) > <u>Bevolkingsdichtheid</u>

Dyslexie centraal – Dyslexie protocol	https://www.dyslexiecentraal.nl/sites/default/files/media/document/2019- 08/Protocol_dyslexie_voortgezet_onderwijs-gecomprimeerd.pdf
Dyslexie centraal –	https://www.dyslexiecentraal.nl/voortgezet-onderwijs
Info. voor docenten	
Hersenstichting:	http://www.hersenstichting.nl/hersenaandoeningen/dyslexie-en-
	dyscalculie/
Regionaal Instituut	https://www.rid.nl/
Dyslexie (RID):	
Rijksoverheid –	https://www.rijksoverheid.nl/onderwerpen/passend-
Passend onderwijs:	onderwijs/vraag-en-antwoord/hoe-worden-leerlingen-met-
	dyslexie-op-school-begeleid
SDN – Brochures:	http://www.stichtingdyslexienederland.nl/publicaties/brochures-
	<u>sdn</u>
Stichting Dyslexie	http://www.stichtingdyslexienederland.nl/veelgestelde-vragen
Nederland (SDN):	

Appendix H – Websites on dyslexia (in Dutch)