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Dyslexia and learning English as a foreign
language: the phonological/orthographic
teaching through the multisensory method

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Dedication

This thesis work is dedicated to all my students who trust in me. Being their Education Helper is one of the great satisfactions in my life.

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INTRODUCTION

Dyslexia is a life-long condition (Nijakowska, 2010) that can affect many students. This reading disorder can sometimes be confused with laziness, and children are frequently blamed for their difficulties. As a consequence, their self-esteem and motivation can be negatively affected, thus causing various problems from both a scholastic and an emotional point of view (Schneider, Crombie, 2003: 3-4).

An important aspect to take into account is that students with dyslexia can be disadvantaged relative to their non-dyslexic peers because their reading problems may influence their abilities to write, speak, listen and comprehend in their Italian mother-tongue.

As a consequence, learning English as a foreign language can become a problematic issue, given that lack of automaticity in the native language, poor working memory and phonological-orthographic processing problems (2003: 6-7) may transform the experience of learning a foreign language into a traumatic event, especially in the classroom context.

First of all, students should be supported outside the school in order to find the best strategies related to their specific problems, given that dyslexia can vary from mild to severe and that it can appear in conjunction with other learning difficulties. Secondly, it is of vital importance to plan an inclusive learning experience which will provide opportunities to all students, so that they will have the possibility to succeed in a classroom context according to their specific skills (Kormos, Smith, 2012: 117).

Therefore, the classroom English teacher has the responsibility of encouraging cooperation and collaboration among students through a multisensory method which aims to include also dyslexic students in group activities without feeling reticent about showing their difficulties.

As it is well documented by many studies (Doyle, 2002; Kormos, Smith, 2012; Nijakowska, 2010; Nijakowska et al, 2013), poor phonological skills are connected to dyslexia difficulties, thus causing the main problems in reading and as a consequence in all other abilities.

It follows that in order to plan an effective teaching to enable dyslexic students to learn English as a foreign language, teachers should:

1. Consider dyslexic students' weaknesses and strengths in order to facilitate a positive learning environment which will support them in achieving their goals.
2. Integrate the traditional teaching methods with helpful activities to reinforce the students' phonological-orthographic awareness through a multisensory approach which can be useful also to non dyslexic students.
3. Create activities which can support students in becoming independent learners in performing their tasks both at school and at home, therefore developing effective metacognitive skills. Students can be inspired to arouse self-reflection and self-correction abilities.

These points could be considered as the core of an effective teaching of English as a foreign language in a classroom composed of students with mixed abilities. In particular, dyslexic students may face many challenges throughout their school career, and their difficulties should not be a reason to deprive them of future opportunities that come with learning English.

This paper is aimed at giving a brief understanding of dyslexia and the difficulties students must face while learning English as a foreign language. Moreover, it proposes activities that will stimulate phonological-orthographic awareness.

Chapter 1 provides an overview of dyslexia. In particular, it attempts to present different explanations of this reading disorder, a classification of the main types, and students' perception problems. Furthermore, the chapter highlights other learning difficulties connected to dyslexia, which can manifest along with it. Finally, an overview of the legislation regarding this learning difficulty in the UK, USA and Italy defines how dyslexia is classified and the procedures followed in the scholastic context.

Chapter 2 offers a clear view of reading and writing difficulties in the Italian mother-tongue, in order to understand in Chapter 3 the main problems dyslexic students face when studying English as a foreign language, and the possible influence of Italian in this process of learning.

Finally, the last part proposes the research aims and predictions of the research project suggested in Chapter 4, which is the main core of this paper. The chapter describes and focuses on two case studies. Students have been supported in performing activities through a multisensory approach in order to grow and strengthen phonological and orthographic awareness in English.

Chapter 5 is dedicated to data analysis, and a discussion on findings is proposed in Chapter 6.

This thesis aims to propose integrative activities which can be applied in a scholastic context. However, further studies should be conducted extensively in order to prove the relevance of this learning strategy.

CHAPTER 1 DYSLEXIA: LITERATURE REVIEW

Learning disabilities and learning difficulties represent lifelong conditions and can refer to a number of disorders which result from impairments in different thought processes associated for instance with the language acquisition (oral language and written language), mathematics, memory and attention (Erickson, 2013: 21-22).

It is well known that along the scholastic career many students can experience various problems translated into learning difficulties, which can have an effect on them in terms of scholastic achievement and psychological effect. It can happen that the difficulties students have to face may be taken as a sign of low intelligence. However, multiple causes can be found to justify scholastic failure, from social-cultural background, to reasons connected with the child's personality and learning method (Hallahan et al, 2005: 5-8). A learning disability has nothing to do with intelligence or motivation. Plainly these students need to train their brain differently from the other classmates to overcome scholastic challenges and succeed in life.

As far as learning disabilities are concerned, children can reveal specific difficulties in acquiring the written language, namely reading and writing, even though they do not manifest any signs of mental retardation or personality disorders. Other kinds of learning disabilities can affect reasoning, listening, speaking and also math's skills. Furthermore, these disorders can pose an obstacle in the process of learning whereby children could have reduced possibilities of acquiring new skills and in some cases they cannot find a way to correct the problem and to keep up with their classmates.

As a result, these students have trouble with being part of a group, sharing their experiences and developing a self-confident personality. Consequently, their school failure causes lack of motivation and confidence in their personal skills. This condition concerns a good percentage of students and the connected discomfort, low self-esteem and strategies of hiding problems can be misunderstood, as stated before, as laziness, indolence and a low level of commitment.

All spheres of life can be influenced by this negative attitude towards learning, making it a condition of conflict and frustration. These problems are not reflected only at school but also at home, causing misunderstandings in the family and isolation. Most children

affected by learning disabilities hide their feelings, thus an early diagnosis and timely intervention involving school and home conditions can prevent serious consequences.

Another important aspect to highlight is that the way in which learning difficulties are expressed may be different from one child to another, presenting various levels of severity, and varying over the child's lifetime. For this reason it is important to support the students throughout their schooling by proposing suitable strategies with the purpose of building independent learners, thereby helping them to achieve the goals they set for themselves.

1.1 Towards a definition of dyslexia

As far as reading and writing are concerned, dyslexia is a term used interchangeably with the expressions “specific reading disorder” or “reading disorder”, moreover it is one of the language-based disorders which occur when children have trouble in understanding the relationship between sounds, letters and words. The majority of children of the primary school learn the alphabet in almost two months regardless of the teaching method used. On the other hand, some learners show difficulties in reading and writing and in some cases also in counting and learning the multiplication tables.

The International Classification of Diseases (ICD-10) and *The Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* are the two main international diagnostic guidelines. In the first manual dyslexia is classified as a developmental disorder¹ and in the updated DSM-5 it is a subtype of Specific Learning Disorders:

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.²

Following these definitions, it can be stated that dyslexia is not a disability such as autism, intellectual disease, blindness and behavioral disorders but as Nijakowska (2010) has affirmed it is a life-long condition, a specific learning disorder that can be

¹ Dyslexia is classified among the specific developmental disorders of scholastic skills. A thorough definition can be retrieved from the online guideline.

<http://apps.who.int/classifications/icd10/browse/2016/en>

² For further research material on the classification of dyslexia it is possible to consult the following online resource

<http://psychcentral.com/disorders/specific-learning-disorder/>

improved when a student is supported with accurate strategies and through an individual plan based on a detailed diagnosis.

Apart from the various definitions and interpretations of dyslexia, philologically speaking the term derives from two Greek words: *dys*, which means having difficulty with something and *lexicos* or *lexis* referring to words (Doyle, 1996: 69). It seems clear that dyslexia is associated with a specific difficulty in dealing with written words of a language. Historically, reading disabilities were classified using different terms. The definition “developmental alexia” was used to define a developmental deficit in recognizing printed symbols. In the 1960s dyslexia³ was substituted for the previous term to describe a reading disability.

1.1.1 Dyslexia and four different levels of explanation: behavioral, cognitive, biological and environmental

Dyslexia has become one of the most exhaustively investigated disorders. Teachers have difficulties in finding the best strategies to adopt with these students, due to the fact that dyslexia can manifest at varying degrees. It should be defined according to four specific levels: behavioral, cognitive, biological and environmental (Kormos, Smith, 2012: 21; Doyle, 2002: 74-76). At the behavioral level, it seems to be clear that dyslexia is connected to reading problems, even though there are a number of other symptoms of this learning disorder. For this reason a reading test cannot be the exclusive measure to determine a case of dyslexia, also because reading skills can improve whereas spelling problems endure over time (Frith, 1999). A further improvement in reading could be supposed because students train their reading skills while studying different subjects, moreover both visual and written tasks offer constant inputs to improve. In some cases children are able to overcome some difficulties, on the other hand, dyslexia represent a ‘life-long burden’ (Frith, 1996: 209) which cannot disappear with maturity.

At the cognitive level, dyslexic children show insufficient phonological processing skills⁴. As a consequence they experience a number of difficulties in reading and spelling mainly unfamiliar words. As a result of this poor ability, students may have comprehension difficulties, thus causing scholastic failure in all subjects given that

³ See the following chapters to have a complete outline of different types of dyslexia.

⁴With reference to the description given by the International Dyslexia Association (IDA) retrieved from <http://eida.org/definition-of-dyslexia/>

comprehension is referred to as the ability to read, process and comprehend a text. The main trouble concern the mother tongue and consequently the more problems they have to face, the more serious it will be to study foreign languages, especially those defined as non transparent languages like English.

As far as the biological level is concerned, it is assumed that dyslexia may have a neurological basis. The Scottish ophthalmologist James Hinshelwood and the British physician Pringle Morgan saw a connection between dyslexia and a specific disease of the visual system (Hinshelwood, 1895: 1566-70; Morgan, 1896: 1378). The French neurologist Jules Dejerine (1891: 197-201) was the first to assume that in the cases of impairment in reading and writing, the main cause was a damage to the left occipital region, which has a central role in the processing of “optic images of letters”.

A similar line of neurological assumption followed and assumed that dyslexic students revealed inadequate brain lateralization, especially for language. The American neurologist Samuel Orton (Orton, 1925, Thompson, 1967) proposed that language impairments in dyslexic students seemed to be related to a reduced dominance of the left hemisphere in phonological language functions. For this reason, students having this problem could not develop their reading ability in the same way as the other pupils⁵. This theory has generated a great number of experimental studies which have not been analyzed in this paper, because the question whether and how dyslexics differ from the other pupils in brain lateralization is still an unsolved issue.

Finally, as far as the environmental level is concerned, many students may experience school failure and consequently “serious emotional and social problems” (Kormos, Smith, 2012: 22) which can worsen their school condition. For this reason an effective and focused support is of crucial importance to give each dyslexic child the right tools to overcome his or her difficulties. In some cases it is complicated to find the best solution at a young age because, on the one hand students affected by dyslexia can present similar difficulties, but on the other hand each learner represents a combination of particular disorders. As a consequence, it is important to follow a specific and

⁵ Min Xu, Jing Yang, Wai Ting Siok and Lin Nan Hai have conducted the study *Atypical lateralization of phonological working memory in developmental dyslexia*. They have demonstrated that dyslexic students failed when they did not activate the left-hemispheric brain while exercising in a phonological working memory task. The study can be retrieved from <http://www.sciencedirect.com/science/article/pii/S0911604414000517>

individual method depending on the student's need. As a result, adequate teaching and an effective support at home need to be examined and evaluated in depth, in order to avoid a negative approach towards studying and to offer a possibility to succeed both at school and in life.

In this paper I am not focusing on the causes of dyslexia⁶ or other learning differences, first of all because it is still an open field of investigation, and secondly, this paper wants to propose possible teaching solutions based on the personal experience of the students.

1.1.2 Classification of different types of dyslexia

Generally speaking, when we talk about dyslexia it is possible to use the terms of “developmental dyslexia” or “acquired dyslexia”⁷. The term “developmental” refers to children who have never learnt to read correctly, and as a consequence, even though they can both read and write, they use all their mental and attentive energies because, unlike their peers, the process is not automatic. The term “acquired” refers to reading disorders due to a brain damage (before the injury, reading abilities were normal). However, the main differences between the two types of dyslexia is between “peripheral dyslexias” in which the functional disorder affects the most peripheral level of the incoming/outgoing information processing and “central dyslexias”, in which the deficit influences one of the two procedures fundamental to reading aloud (Denes, Pizzamiglio, 1996: 401-41).

1.1.3 Peripheral dyslexias: letter by letter dyslexia, attentional dyslexia and neglect dyslexia

- *Letter by letter dyslexia*: this type of dyslexia excludes problems of agraphia⁸. Generally patients can write normally, even if they are not able to read what they

⁶ In order to have a clear presentation of the causes of dyslexia it is possible to refer to Doyle (1996). He proposed two different hypothesis; the first is grounded on biological bases and the second on phonological awareness.

⁷ This type of dyslexia is also called “alexia” or “traumatic dyslexia” (Doyle, 2002: 86). It was diagnosed more than a century ago and the term ‘word-blindness’ has been implied to define the same condition in patients affected by brain damage with the consequent loss of reading abilities.

⁸ Agraphia is a disorder which is due to an impairment in writing after a brain damage.

have written. They try to grasp the meaning of the word starting from each letter, following a slow sequential process. The speed of reading depends on the number of letters which compose the string. Thus the shorter the string, the faster the reading. As for the speed of reading, here too the correctness depends on the length of the words. The possible mistakes can be visual due to an incorrect use of the context in which the single letter has been read. For example, if “c” is followed by the vowel “e” it could be pronounced /tʃ/, if followed by “u” it becomes /k/ due to the influence of Italian, such as “cena” (dinner) /'tʃena/ whereas “cupola” (dome) is /'kupola/.⁹

According to Wallington and Shallice (1979: 43-63) the deficit depends on the visual form of the word, as children who are not able to transform the visual analysis of the letters into orthographic decoding.

- *Attentional dyslexia*: Wallington and Shallice were the first to describe some patients able to read a word, but not all letters of it. Generally they are able to read single words or letters which are isolated, however they cannot read the same letters if presented in a sequence. For example, although they can read the word “tavolo” (table) and also letter “t”, they have difficulties in reading a sequence such as “tavolo”, “stanza” (room), “pavimento” (floor) or simply “t”, “s”, “p”. Another possible mistake is the so called “migration of letters”, which can happen inside a word, but also between two different words, for example instead of “pera” (pear), they can read “rape” (turnips). This type of disorder can be caused by a deficit in the visual attentional control system or of the focal attention which is responsible for the selection of the stimulus and defines its position (Ladavas, Berti, 2002:153).
- *Neglect dyslexia*: children can make mistakes reading the initial parts (left neglect) or the final elements (right neglect) of the words. There can be two different types of mistakes: omission or substitution of letters. These obstacles can show up mainly when children have to read the non-words compared with the words (2002: 154).

⁹ Chapter 2.1 presents this case and the main difficulties dyslexic students may experience while studying Italian, as first language can influence their English pronunciation.

1.1.4 Central dyslexias: phonological dyslexia, superficial dyslexia, deep dyslexia

- *Phonological dyslexia*: children can have access to the vocabulary directly using the visual procedure. However, they cannot do the same by means of phonological practice. For example, in English a child could spell *every* as *evry*, first of all because he thinks that words are written as they are pronounced, secondly he or she believes that words are spelled based on their meaning and then on their phonology. Generally speaking, patients are not able to read non-words which can be decoded using the phonological method. Moreover, they have trouble with reading words which have a particular use inside a sentence; for example in Italian they may substitute function words “perchè” (why) instead of “cioè” (that is) or make morphological mistakes such as the use of “canto” (I sing) instead of “cantavo” (I sang). In these cases the main reason is due to a lesion on the left hemisphere (Ladavas, Berti, 2002: 155).
- *Superficial dyslexia*: in this case patients are not able to read the words using its global representation but by using their phonological procedure (grapheme-phoneme correspondences). They are able to read almost all words according to the rules but they apply the same procedure also for irregular terms (for instance they read *blood* as /blod/ instead of /blʌd/ because they pronounce the same phoneme which is present in *book*). This type of mistake is called “regularization” (2002: 157). Marshall and Newcombe (1973: 175-199) were the first to describe this disorder, in particular they delineated the following features:
 - good skill in reading isolated words,
 - ability in reading regular words and non-words (better than reading irregular words);
 - mistakes of “regularization” (in English the word “pint” has been read as /pint/ by analogy with “hint” and “mint”, whereas the correct pronunciation is /paint/),
 - trouble with assigning the correct meaning to homophones which are not homographs (for example “none” and “non” has the same pronunciation but different meaning).

- *Deep dyslexia*: may be considered a variation of phonological dyslexia, and the main symptom is the semantic error in reading aloud. Patients are not able to recognize and read non-words and the mistakes can be:

-visual errors, for example using “nano” (dwarf) instead of “mano” (hand),

-derivational errors, for example using “cantare” (sing) instead of “cantante” (singer);

-semantic errors, for example using a word which belongs to the same semantic field but is incorrect, as in “è coraggioso come una pantera” (He is as brave as a panther). The speaker has mistaken the word “pantera” (panther) with “leone” (lion). Even if the two animals belong to the same semantic field, the lion is generally known for being brave, whereas the panther is known for speed.

In general, the mistakes more frequently concern adjectives, verbs, function words like articles, prepositions, adverbs and pronouns rather than nouns because concrete words are easier than abstract terms.

1.2 Dyslexic students and their perception problems¹⁰

On the basis of some particular aspects it is possible to determine the dilemma felt by the dyslexic child in relation to the world around him or her. It is possible to define the following features:

- *Ambiguity of distances and positions of objects*: the relationship between the dyslexic child and objects is relatively stable, but he or she may have difficulties in determining the right position of something.¹¹
- *Ambiguity of shapes and meanings*: dyslexic children may perceive the intrinsic essence of an object, but at the same time they may have trouble with its position, orientation and definition formulating clear sentences.
- *Ambiguity of values*: dyslexic children experience difficulties in defining the value of something if both positive and negative features have been presented.

¹⁰The following features have been taken and translated from E., Bonistalli, *Prevenzione e trattamento della dislessia*, Firenze: La Nuova Italia, 1973: 15-26.

¹¹ Jim Doyle (1996: 103) underlines that the level of confusion is related to age and once children become adult, they learn the cardinal points to acquire a better orientation. Moreover, dyslexic students may have both time and date confusion.

For example, a dyslexic student has trouble in understanding if a particular learning strategy could be useful for him or her.

- *Self-Uncertainty*: children are not self-confident and as a consequence they do not feel trust in people and things around them.¹²
- *Clumsiness and groping of gestures and verbal expressions*: children can express clumsiness from both a physical perspective as well as from a verbal point of view. They have trouble in finding the right word to express themselves because they cannot distinguish among the visual and visual-motor images present in their mind.
- *Affective ambiguity*: considering that children feel a sense of uncertainty between what they should do and what they should avoid, they experience a sense of turmoil. They have many questions in mind and it seems a long-lasting plan would be a failure.
- *Anomalies in the visual-motor process of reading*: the conventional reading system is expected to follow a normal orientation from left to right. However, the eyes move at regular intervals doing small but quick leaps. Children have more difficulties in the spacial-temporal succession from left to right and from up to down than adults, thus they need time to accustom themselves to the conventional reading system. Moreover, dyslexics children having problems of orientation, space and time need even more time than their peers in order to complete a task.
- *Anomalies in the acoustic-motor process*: in order to associate a grapheme to a phoneme it is important to know all the phonemes perfectly. In Italian, dyslexic children generally confuse letters having a similar sound. For instance, pupils can confound /p/ and /b/, /f/ and /v/, /c/ and /g/, /m/ and /n/.¹³ Normally a child is able to distinguish the acoustic differences between the phonemes, however

¹² The psychological effects of dyslexia are an important issue which should be analyzed in depth, first of all because they influence the process of learning, thus reducing the performance level in the L1. Secondly, anxiety and fear can affect the relationships with teachers, peers and parents.

¹³According to Doyle (1996: 104) English children generally confuse /b/ and /d/, /p/ and /q/ because of the similar sounds.

some dyslexics can exhibit a deficit in the acoustic-motor process, in other words they have a problem in the receptiveness of the phonetic mechanism. The most confused sounds are between unvoiced and voiced phonemes as /p/ and /b/, /t/ and /n/ because children cannot perceive the vibration of the larynx. In the case of sounds with the same phonetic nature as /f/ and /s/, children have trouble with their identification due to the brevity of the air emission. Finally, as stated previously, the labial /m/, /b/ and /p/ can be confused with the dental /n/, /d/ and /t/ because children concentrate more on the tongue movement than on the phonic differences.

All the anomalies described above can have a negative consequence on orthography and it might be thought that in the case of reading, children could be helped by the context. On the contrary, this deficit negatively affects the act of reading because it prevents the correct and direct letter-sound correspondence, thus the student find himself or herself in the position of guessing the words and not reading them.

- *Perceptive anomalies in the stereognostic structures:* this kind of difficulty is related to the perception of spatial structures of graphic forms. In particular, in the matter of writing, some graphemes can be confused due to their written orientation (For instance /u/ and /n/, /p/ and /p/, /b/ and /d/, but also /f/ and /t/). In order to draw them correctly it is important to have a clear awareness of the following spatial points: up, down, left and right. One of the main difficulties dyslexics experience is the left-right and up-down confusion as mentioned above. As a consequence, pupils not only have trouble in perceiving the time and spatial orientation of objects, but they also translate the same complication in the act of writing. Although the reasons are not clear why dyslexics encounter these obstacles, it is evident that children need to be supported in order to improve these weak points. In addition to graphemes similar in their written shapes, another possible misleading situation is given by the vowels “a” and “o”. When they are written in italic they can be confused due to the circle oriented in two different ways. The “a” can also be confused with the reverse form of the “e” and vice versa.

The majority of dyslexic students write using block letters in order to have a better writing, thus they feel more confident in expressing their thoughts. As far as the textbooks are concerned, the problem remains the same because they are written in italics. However, considering the high spread of technology children can use software like *Alfa Reader*, created by Erickson, which is a voice-reader text-to-speech program saved on a USB flash drive. Thus, students can have their textbooks in digital format which can be used both at school and at home. This could represent a useful device for students affected by severe dyslexia.

- *Difficulty in rhythmic perception and in the spatial temporal sequences of sounds and letters* is connected to the problems in orientation aforementioned. Considering that dyslexic children have trouble with the correct sense of reading from left to right, it could happen that the unit “in” would not be distinguished from “ni” or “il” from “li” and vice versa. The letters that can confuse children are “r”, “l” and “s” because they are commonly used in complex unions of three letters (as an illustration “fra”, “cla”, “stra”). This is a recurring phenomenon also in monosyllabic words. It is important to note that the difficulty in perceiving the spatial forms can manifest simultaneously with the problem of recognizing temporal structures. When dyslexic children are exposed to a rhythm test they are not able to reproduce in order specific sequences articulated in three occasions, an auditory level, a gestural perspective and a graphic viewpoint. To put it another way, they cannot write perfectly three different graphic elements.
- *Difficulties in the ability of abstraction and symbolization*: in order to pass from the oral language to the orthographic form, children need to have interiorized the alphabetic writing system. Moreover, with reference to Italian, children who have been taught to follow global reading strategies and have trouble with isolating and differentiating each sound may encounter obstacles in comprehending the writing system, in which a grapheme corresponds to a phoneme. Moreover, in order to be able to read, children need to know the direct correspondence between a sign and the mouth movement in order to reproduce a specific sound. A high percentage of children adopt a global reading strategy, and therefore have trouble with recognizing single syllables or non-words. This

incomprehension of the grapheme-phoneme relationship may be the basis of severe cases of *acquired dyslexia*.

- *Difficulties of association between a string and its meaning*: an effect of being a poor reader is the hesitation in front of a text, and as a consequence dyslexic students cannot grasp the meaning of the content. This is the case of a child who reads repeatedly the word “ta-vo-lo” (table) but he or she is not able to visualize and understand the meaning of the term itself. As a consequence, a dyslexic child in trouble while reading a text might separate words which should stay together or assemble others which should be separated.

In this chapter, I have excluded a deep analysis of the grammar, listening and comprehension difficulties in Italian, because I have focused on the core of the learning deficits which, as a consequence, have a negative influence on all other abilities.

1.3 Defining learning differences connected to dyslexia: dyspraxia, dysgraphia, dysorthography and dyscalculia¹⁴

The severity of dyslexia can differ in each individual and it manifests itself as difficulties with the acquisition of written codes that is reading, writing and counting. In some cases it can exist along with other learning differences: dyspraxia, dysgraphia, dysorthography and dyscalculia. All these learning problems similarly to dyslexia generate difficulties with language acquisition.

1.3.1 Dyspraxia

In the matter of dyspraxia¹⁵, the word has a Greek origin in the same way as dyslexia has and it is defined as “a form of developmental coordination disorder (DCD)”.¹⁶

¹⁴ These are not all the associated learning differences a dyslexic pupil can encounter along the scholastic path, but these are the main difficulties my students have experienced. (See Chapter 3 of Kormos and Smith, 2013)

¹⁵ There are many tendencies which characterize students affected by dyspraxia. However, the main problem is the lack of organization from both a movement perspective and a scholastic point of view. The problems proposed have been delineated according to *The Leicestershire Dyslexia Association* <http://ldadyslexia.org.uk/dyslexia/dyslexia-and-co-occurring-difficulties/> and Kormos & Smith, *Teaching Languages to Students with specific Learning Differences*, 2012: 45.

¹⁶ A clear definition of dyspraxia is available at <http://www.dyspraxiafoundation.org.uk/about-dyspraxia/>

Dyspraxia refers to the problems of movement and coordination, but also language and speech. Other connected difficulties are: lack of attention, concentration and fluent speech production (Kormos, Smith, 2012: 44). Unlike developmental coordination disorders, dyspraxia concerns the arrangement of movements.

Apart from having problems in activities that involve the use of concise motor abilities, children affected by dyspraxia reveal innumerable difficulties in handwriting and in acquiring the writing system of another language. Languages like English have an orthography different from Italian; furthermore orthography, spelling and pronunciation present many inconsistencies between them. Therefore learning English becomes a difficult challenge for dyslexic students affected by dyspraxia. In addition, handwriting requires the activation of multiple skills such as body movements (arms, hands, eyes) but also memory, using a pencil and writing letters¹⁷. The speech production of children with developmental coordination disorder can also be affected because it requires not only the coordination of concise motor movement to form letters accurately, but also particular abilities to translate thoughts into words and finally sentences.

As a consequence of poor organization, shorter concentration and attention span, children might also have problems in integrating information coming from different channels (Ayres, 1972). For example they cannot listen to the teacher and write at the same time. Thus, they need more time to complete their tasks than the other classmates and sometimes they can lose part of the teacher's explanations. For this reason, it seems pivotal to find the best strategy to compensate for the difficulties in coordination and in following school activities.

1.3.2 Dysgraphia and Dysorthographia

Problems in handwriting can also be due to dysgraphia. It is a brain-based issue and generally children affected by this learning difference need a higher level of concentration and working memory than normal. As previously stated, the act of handwriting requires a complex system of motor abilities which have to work

¹⁷Handwriting is a complex skill that gives each individual the possibility to express feelings and thoughts. In some cases children can reveal many difficulties in maturing and developing particular abilities. It is possible to have an accurate description of handwriting skills and problems at the following website

http://www.childsupport.in/html/ourservices_handwritingskills.html

simultaneously with information processing skills. Once children learn how to write, they practice developing the skill of what to write. For some children writing becomes a huge challenge due to poor spelling, grammar and the pressure of putting their thoughts on paper. That does not mean they are not able to write, on the contrary they just need more time to express what they think and they can feel a physical pain, which is the main cause of a illegible handwriting (Erickson, 2013: 114). As a consequence, their difficulties in transforming the phonological code into the orthographic system is worsened by illegible handwriting. They tend to use different writing styles inside a word and their problems in organizing ideas are intensified by a physical pain in using hands muscles¹⁸.

As far as the orthographic skills are concerned, students can exhibit memory problems when they are affected by dysorthographia. It is interesting to note that among the UK definitions of learning differences the word dysorthographia does not appear because the term dysgraphia combines the two aspects: unreadable handwriting and incorrect sound and letter correspondence.

Unlike the UK context, according to the Italian classification and namely Erickson, (2013) there is a distinction between dysgraphia and dysorthographia (2013: 111). Dysgraphia can manifest itself as a difficulty in reproducing both alphabetical signs and numerical symbols (2013: 116). On the one hand, it concerns exclusively problems in handwriting and not in orthographic and syntactic rules. On the other hand dysgraphia also influences these skills, due to the impossibility of the students' rereading and self-correction. In the case of dysorthographia, there is a clearer distinction, specifically from a phonological and an orthographical perspective. The main mistakes children can make concern the sound-letter relationships. From the phonological perspective, pupils can confuse similar phonemes. For instance; "f" and "v", "fento" instead of "vento" (wind) or "t" and "d", "m" and "n", "b" and "p". In other cases they may omit a double letter as in "pala" instead of "palla" (ball) or a vowel in the middle of a word "nuto" instead of "nuoto" (swimming) and consonants "paco" instead of "parco" (park). Moreover, children can write a word incorrectly due to poor memory and spelling. They can misspell "dragi" instead of "draghi" (dragos) or "pesce" (fish) instead of "pesche" (peaches) or invert syllables inside a word, namely "lutinaco" instead of "lunatico"

¹⁸ This symptom was exhibited by one of my students affected by dyslexia and dysgraphia.

(moody). In other cases words have extra letters or syllables as happens in “canecello” instead of “cancello”(gate).

From an orthographic viewpoint, children can find difficulties in writing words even though their pronunciation is correct. Generally they missed words such as “in dietro”. Notwithstanding the correct written form is “indietro” (behind), the pronunciation is the same in both orthographic forms. Another example is the incorrect written form of “quore” instead of “cuore” (heart). Some words can be combined as happens in “lamia” for “la mia” (my); in the sentence “Marco a un cane” the verb “to have” is written incorrectly because it needs an “h”, whereas “a” is a simple preposition. In other cases the letter “h” can be added incorrectly, as demonstrated in “ghonna” instead of “gonna” (skirt) (2013: chart 5.2).

1.3.3 Dyscalculia

Among the signs of dysgraphia previously described (2013: 116) it seems interesting to note the connection between reproducing alphabetical signs and numerical symbols. Children affected by dyslexia generally also display problems in memorizing multiplication tables and in counting. However, this specific learning difference called dyscalculia¹⁹ is not easy to identify. Firstly because it can manifest itself with dyslexia or other learning difficulties and secondly, it depends on the level students achieve when children attend the primary school. It could happen that they might not succeed in developing suitable mathematical skills due to a low level of teaching (Kormos, Smith, 2013: 46) or lack of sufficient exercise.

According to Geary (2004) there are no specific measures to diagnose mathematical learning disabilities (MLD); this kind of learning difference can be defined by means of standardized tests in combination with measures of intelligence (IQ) (2004: 5). Mathematical thinking is based on a complex system of abilities and cognitive processes; acquired competence in the knowledge of numbers, the connected skills of counting and all other arithmetical procedures. Moreover, it seems pivotal to underline the role of working memory in the development of both counting and problem-solving processes and the phonetic-articulatory system of a language (2004: 9). Thus, problems

¹⁹For a clear definition of dyscalculia it is possible to visit <http://www.bdadyslexia.org.uk/dyslexic/dyscalculia>

of miscounting are due to a deficit in information representation and in attentional control. As a consequence, if numbers are pronounced too quickly or not clearly, then children are not able to fix and manipulate them in the working memory. In more sophisticated mathematical procedures, pupils with MLD can present a poor understanding of the notions and consequent difficulties in collecting arithmetic facts or retrieving them from long-term memory (2004: 11).

To conclude, it can be stated that the relation between children affected by dyscalculia and MLD is not clear, due to the lack of a reliable diagnosis of dyscalculia and still today it represents a field to investigate. According to Joffe (1990) approximately 60% of children who have dyscalculia also have dyslexia and for a long time it was identified by a discrepancy between mathematical results and IQ tests. As mentioned above, Geary (2004) noted that students need to remember and reproduce the names of numbers, a function which draws upon phonological short-term memory and the language system. This last skill is responsible also for comprehending mathematical problems, whereas the visual-spatial system is important for acquiring the elements of geometry (2004: 12). Once students reveal difficulties in counting they may also have trouble with automatic procedures such as multiplication and addition. These are key elements to build a solid mathematical base and to develop higher levels of learning.

Unlike the UK context, following the Italian legislation, dyscalculia is a learning difference which pertains to a deficit in counting but does not deal with problem solving (Erickson, 2013: 145). Furthermore, it is explained that while interpreting a problem, students should activate the same abilities as in general reading comprehension. After having grasped the meaning of a mathematical text, children must translate the words into a real representation in order to find the answers. Another essential skill to exercise is the ability to understand the similarities between different problems which can be expected to be solved almost in the same way. Finally, effective planning is crucial in solving the problem. As a consequence, once children exhibit difficulties in the previous skills, the main reason is not due to miscounting but to language impairment, poor decoding skills or logical deficits.

1.4 Dyslexia and Legislation: the specific cases of UK, USA and Italy

The most detailed account of the laws and regulations regarding dyslexia is given by Salter and Smythe (2004). The editors underline that “the book highlights the diversity

of approaches to a problem common to every nation and, to varying degrees, to every language” (2004: 8).

1.4.1 UK

Dyslexia is a well-known issue that found its roots in Great Britain more than one hundred years ago, when Hinshelwood (1986) published an article in “The Lancet” on the issue of word blindness and visual memory. The article inspired Pringle Morgan, who analyzed the case of a fourteen years-old boy who was not able to learn how to read. Consequently other researchers started to develop studies on this issue. Between 1896 and 1911 Hinshelwood published a series of reports and articles on the possible congenital nature of the condition, thus contributing to scientific and social awareness fundamental to considering dyslexia as an important issue that should be examined in depth.

Dyslexia has become an important area of study in Great Britain for many reasons, first of all because of the irregularities of English, from both an orthographic and a phonological perspective, and secondly, because English is a typical example of a non-transparent language where the relationships between grapheme-phoneme signify a huge challenge for children with reading disabilities. According to a recent survey today “10% of the population is dyslexic; 4% severely so”²⁰, thus causing difficult situations in which children and adults are not able to take advantage of their potential due to inadequate teaching and learning methods. As a consequence, Great Britain created many organizations to make people aware of this issue, which does not exhibit an obvious difficulty, but rather a hidden problem, in some cases hard to define, because it manifests itself together with other learning differences.

The United Kingdom has specific dispositions on dyslexia. Over the years different expressions have been used to define the difficulties dyslexic people experience. It is important to distinguish the definitions following a medical perspective and a legal recognition.

The first identification of dyslexia is usually attributed to Adolph Kussmaul, who in 1878 coined the term *word blindness* to describe the difficulties some patients

²⁰British Dyslexia Association provides updated data and support for both parents and dyslexic students <http://www.bdadyslexia.org.uk/about>

encountered while reading common words in the wrong order (Kormos and Smith, 2012: 6). Consequently, in 1887 Rudolf Berlin used for the first time the word *dyslexia*, which stood for word blindness. As aforementioned, the term has a Greek meaning and with Berlin the concept of having difficulty with words was restated.

From a medical point of view, in the late 19th Century dyslexia was considered as a particular problem attributed to the individuals labeled as *handicapped* (2012: 6-7), who needed special education. In the 20th Century dyslexia became a social issue and it was classified as a *Specific Learning Difficulty*. It seems to be clear that dyslexia is not a disease that can be cured because it is a lifelong condition which can improve but never disappears. As presented in chapter 1.3, dyslexia can co-occur with other specific learning differences (SpLDs) (see chapter 3 Kormos, Smith, 2013) which are often defined as *disorders* and as unusual differences in the process of learning.

From a social perspective, it could be argued that considering dyslexia as a *Specific Learning Difficulty* implies the necessity of an educational system suitable to give all children the tools to overcome their difficulties. Thus, additional support, such as assistive technology²¹, special tutors and individualized tasks should be offered in the classroom context through varied teaching methods. However, children affected by learning difficulties sometimes reject their condition and accept the support with mistrust because they do not want to feel favoured over their classmates.

In educational settings, a group of qualified specialists have to diagnose the kind of disability an individual could be affected by. In England a *Statement of Special Educational Needs* (2013: 10) was formulated and discussed to decide which kind of support students with dyslexia need and the most suitable educational path to follow. The most important aspect to highlight is that the point of convergence of all adjustments and individualized education plan (I.E.P) aspire to *inclusion*, namely that students with learning differences should feel being part of a class, follow the same curriculum and extra-curriculum activities as the other classmates.

The first official recognition of dyslexia was given by the Department of Education and Science, and is dated back 1974 (Salter, Smythe, 1997: 29). Then, in the 1981, the

²¹ For instance dictation software, word prediction programs, text-to-speech apps or note-taking tools.

*British Education Act*²² eliminated the former label of *handicap* and entitled dyslexics to a *Statement of Special Educational Needs*. The Act underlines the necessity to support awareness and suitable practice in the scholastic context. *The British Dyslexia Association* (BDA)²³ was established in 1972 and to this day it has had an important role in monitoring legislation and the educational authorities. The organization also supports research projects and encourages screening procedures to raise awareness and intervene at an early stage.

The Education Act of 1996 produced important developments. The most important is the introduction of a *Code of Practice*, which extended the possibility to introduce other services to support children with special needs. Another important act formalized in order to defend the rights of dyslexic children was the *Disability Discrimination Act* of 1995, integrated with the *Special Educational Needs and Disability Act* of 2001, then amended and replaced by the *Disability Discrimination Act* of 2005. These acts evolved in order to extend the legal protection of dyslexic rights both at work and in educational settings, thus leaving space for the *Equality Act* of 2010, focusing on the necessity to integrate, include and change the setting to guarantee all people the same opportunities. Furthermore, it can be stated that the medical perspective was moved to the background given the emphasis on the protection rights and on providing the most effective tools to overcome learning barriers²⁴.

1.4.2 USA

With regards to the USA, an important figure engaged in the field of dyslexia was that of Samuel Torrey Orton, a pioneer in the field of reading research and multisensory teaching. He founded what is known today as *The International Dyslexia Association*

²²The act explains the meaning of “special educational needs” and “special education provision”. It is possible to examine it in depth consulting the online source <http://www.legislation.gov.uk/ukpga/1981/60/enacted>

²³ It is possible to consult the website <http://www.bdadyslexia.org.uk/>

²⁴ A statutory guidance has been formulated in order to explain the duties, policies and procedures that schools and colleges must follow while supporting children and young people with particular needs or disabilities. It is possible to consult the source available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/398815/SEND_Code_of_Practice_January_2015.pdf

(IDA)²⁵, in the 1920s one of the most important organizations, which still today is involved in investigating the field of dyslexia, publishing important instructional documents and training teachers. From 1929 on, Anna Gillingham worked with Orton and they realized a methodological approach for children with language processing problems and adults with dyslexia (the *Orton-Gillingham approach*²⁶).

The main difference between the UK and the USA history of legislation to protect the rights of the disabled and in particular students with special needs, is the less conflicted path which characterized the British context.

As far as the USA is concerned, surprisingly, the connotation *learning disabilities* (LD) seems to be used in a different way from the other countries. According to Salter and Smythe (1997):

It is not a term synonymous with mental retardation. In fact, the term was developed in the early 1960's to differentiate between those who were "average and above average" intelligence and those of "low" intelligence, having severe reading problems. (1997: 186)

As a result, the term LD has started to include persons with mental problems but also those affected by dyslexia and other problems in reading, writing and mathematics.

In the USA the first most expansive federal education bill dates back to 1965 with the *Elementary and Secondary Education Act* (ESEA). This text underlined the necessity of allocating funds for disadvantaged children, however in this bill disabled people were not directly cited and schools had few obligations towards them. The *Education for All Handicapped Children Act 1975* (EAHCA) changed the situation and it represented a step towards integration, given that schools received federal funding to offer handicapped children access to education and personalized education programs. The Act was the result of a long wave of activism and legal pressure demanding rights for

²⁵Samuel T. Orton's wife, June Orton formalized the *Orton Society*, which increased influence over time after Orton's death. The history of IDA is available at <http://eida.org/history-of-the-ida/>

²⁶This approach is also known as the *Multisensory Structured Language Approach*. The Orton Academy is an organization which follows the Orton-Gillingham method and is engaged in supporting dyslexic students. See the website for more details: <http://www.ortonacademy.org/approach.php>

people with disabilities. However, dyslexic people were not considered different from the disabled.

The law was amended in 1990 by the *Individuals with Disabilities Education Act* (IDEA). Notwithstanding the changes in 1997 and 2004 the content of the law remained always the same (Driscoll, Nagel, 2008). However, there are two interesting aspects to note: the first one is the determination to ensure *individualized education programs* (IEPs) and to educate qualified teachers, and secondly the consideration of disability as a different way of learning and not as a reduction in cognitive abilities.

As stated before, the *Americans with Disabilities Act* of 1990 did not distinguish dyslexic people from the other forms of disability, and as a consequence they were still considered disabled persons.

In 2004 IDEA was re-authorized to align with the *No Child Left Behind Act* (NCLB) enacted in 2001, thus IDEA changed into *Individuals with Disabilities Education Improvement Act* (IDEIA). Both education laws concerns the assignment of funds to children with special needs, in particular what distinguishes NCLB from IDEA is that schools are measured by the AYP²⁷. As a consequence:

On the one hand schools are required to pass AYP including the scores of disabled students, and yet on the other hand, the assessment of whether a student is receiving a free, appropriate education does not necessarily include that student's success in standardized test scores. (Kraus, 2009: 8)

It can be stated that IDEIA represents an effective attempt to include disabled people in the general education curriculum, thus guaranteeing an appropriate schooling, while the necessity of “individualized education and assessment for students with disabilities” is underlined and “limitations on schools as to the number of students eligible for alternative assessments” (2009: 10).

It can be noted that the term dyslexia does not appear as a separate disorder, and even “if a student is given a diagnosis of dyslexia from a private health provider, parents can request an evaluation for SLD (Specific Learning Disability) from the school to determine eligibility for services” (Youman, Mather, 2012), that means that while

²⁷Adequate Yearly Progress (AYP) is the measure defined by the United States federal *No Child Left Behind Act* 2001, which determines if schools are educating students in the best way.

progress has been made towards the identification of dyslexia, the laws do not fully guarantee that dyslexic students can be supported with appropriate adjustments and tutoring (Salter, Smythe, 1997: 188).

1.4.3 Italy

With regard to the Italian position towards dyslexia, it can be noted that Morchio, Ott and Pesenti (1989) discussed “the relationship between the nature of the Italian language and the reading and writing difficulties which may occur when children learn to read” (1989: 1). Their work can be perceived as an attempt to indicate the problems dyslexics have to deal with in learning a transparent language such as Italian (Salter, Smythe, 1997: 106). Moreover, the authors recognize the active role of the Italian legislation in providing equal opportunities to handicapped children²⁸, nevertheless “very few dyslexic children benefit from these special facilities” (Morchio et al, 1989: 150).

Unlike the UK and the USA, specific legislation concerning dyslexia arrived late in Italy as compared with other countries. The first *Italian Dyslexia Association* (*Associazione Italiana Dislessia AID*²⁹) was founded in 1997, which was followed by other organizations. Stella (2004) underlines that “until the 1990s children having difficulties in reading and spelling were not identified as dyslexic and received inappropriate support at school” (2004: 139).

The first legislation that introduced the legal term of dyslexia was in 2010, with *Law 170* coming into effect in 2010. Before that moment there had been number of ministerial circulars since 2004, in which teachers were exhorted to adopt compensative adjustments to support students from both a scholastic and an emotional perspective. Moreover, with *Law 148* in 1990 all students were required to learn a foreign language, starting from the primary school.

In 2009 with the ministerial ordinance number 40 the term DSA started to be used, furthermore it introduced the possibility to use specific technological tools normally

²⁸The famous Law 104/1992 was important to support pupils with disabilities in both education and training. However, there is no reference to children affected by dyslexia.

²⁹For more information see the website <http://www.aiditalia.org/>

employed during the school year and also on the final examination of the lower secondary school.

As a consequence of this policy of awareness towards students with dyslexia, things have started to change, According to *article 10 of the decree of the president 122* from 2009 students diagnosed with specific learning difficulties could be evaluated during the school year and on examination, taking into account their specific learning differences.

As a result, the *Law 170* in 2010 has introduced new norms to follow in the field of learning difficulties. This legislation has clearly defined dyslexia (as well as dysgraphia, dysorthographia and dyscalculia) as specific learning disorders (SLD). Consequently, in 2011 a Ministerial Decree introduced guidelines in order to specify educational and didactic measures to support the teaching and learning processes.³⁰

According to the *Inter-Ministerial Ministry of Education, Universities and Research-Ministry of Health Decree (17/4/2013)*, SLDs should be diagnosed at an early stage, generally from primary education, in order to intervene promptly and support children during their scholastic career. As a consequence, the documentation and the *Personalized Didactic Plan (Piano Didattico Personalizzato PDP)* compiled by the competent offices of the national health system must be submitted to the school (Erikson, 2013: 319-320).

According to *Law 170/2010* it is possible to define the major category of children with special needs (Alunni con Bisogni Educativi BES) (2013: 324), thus:

- For children with disability (According to *Law 104/92*): the *Individualized Educational Plan (Piano Educativo Individualizzato PEI)* is compulsory.
- For children with Specific Learning Disorders SLDs (According to *Law 170/2010*): the *Personalized Didactic Plan* is compulsory. Developmental Dyslexia, dysorthographia, dysgraphia and dyscalculia belongs to this category.
- For children with other special needs not included in SLDs (According to the *Ministerial Decree 27/12/2012* and *Ministerial Circular 8/2013*): PDP is not compulsory, but an independent choice of the “Consiglio di classe”.

³⁰See the *European Agency for Special Needs and Inclusive Education* at <https://www.european-agency.org/country-information/italy/national-overview/complete-national-overview>

Notwithstanding the important step towards the legal recognition of dyslexia, Italian Education seems to be still at the beginning of a change. The main contradictions of the *Law 170/2010* depend on the fact that in the matter of learning a foreign language, dyslexic students should reach the same levels as their classmates as far as the oral examination is concerned. In the written tests children may have personalized assessment and the main goal to reach is the achievement of a sufficient score, the so called “obiettivi minimi”. However, that seems contradictory, first of all because all children have to take a written examination in English and in a second foreign language (French, German or Spanish) at the end of the lower secondary school, whereas in the oral examination teachers can decide if they want to ask questions in the foreign languages.

In view of all this, it could be deduced that better adjustments and teaching strategies should be followed in order to strengthen the writing skills in foreign languages in view of the lower secondary examination. Moreover, dyslexic students can present different difficulties from each other due to the different severity of their condition or other connected learning differences. Thus, a student could excel at speaking whereas fail in written texts, others instead could experience the opposite situation. However, *Law 170/2010* does not take into account the peculiar differences among children with learning disorders, due to the need of standardise.

Another important aspect to consider is that schools do not assume the presence of specialists to support dyslexic students during their schooling. Parents are supposed to find private tutors to sustain their children in finding the best strategies to succeed both at home and at school. In the school context, there is only the teaching staff to sustain students with dyslexia and considering the recent law it is of vital importance to dedicate time and funds for teachers training in the matter of strategies and assessment towards dyslexics (and children with other SLDs).

CHAPTER 2 DYSLEXIA: A LANGUAGE-BASED READING DISABILITY

As stated in the previous chapter, dyslexia concerns word recognition, reading and writing, all processes that become automatic during the first phases of learning. According to Frith (1985: 306) students acquire reading skills in the mother-tongue through three stages identified with three strategies.

2.1 Logographic stage

First of all, in the logographic stage children learn to read a few words such as their name, the signs of the supermarkets or other words, processed as whole units. In this phase, pupils start to write words as pictures that convey a general and overall meaning. With this in mind, children do not write their name following the grapheme/phoneme correlation, but simply because they memorize the letters of a specific word. However, they begin to train their phonological awareness through writing activities. Children associate the letters to specific words that contain them. For instance, they write or read the word “cane” (dog) isolating and repeating the phonemes useful to recover the term. They remember that the letter “c” is the same as that in “casa” (house) or “cavallo” (horse), thus they start to create a thick system of brain networks.

2.2 Alphabetic stage

The second phase is the alphabetic stage of decoding, in which children start to transfer letters into sounds, thus identifying the correspondence between a letter and its phoneme, which means determining the phonological form of a word. Thereafter, they put together the beginning and ending consonants with vowels to create syllables and finally words. This is the start of both reading and writing, in particular the conversion of a phoneme into a grapheme is the key part for writing. For these reasons, following the alphabetic principle, children train two abilities (Erickson, 2013: 57):

1. Alphabetic understanding (words composed of letters and sounds)
2. Phonological decoding (letter-sound correspondence)

The acquisition of the previous skills determines a key point in the process of learning due to the fact that high levels of automaticity are necessary to move on to the next

stage of reading. According to Logan's (1988) skill acquisition theory, children begin decoding words letter by letter and by repeating this process until they are able to recognize words simply by looking at them, without any instruction. Dyslexic students need more time than their peers to achieve a level of automaticity, and for this reason if they are not able to reinforce this phase the next step represents a real obstacle.

2.3 Orthographic stage

Finally, in Frith's (1986) orthographic stage children do not analyse words letter by letter any longer, because they are able to identify names quickly and automatically. Pupils put together groups of consonants with digraphs and trigraphs to form words, which represent letter sequences.

According to Ehri (2005) the orthographic stage presumes the "sight word" recognition system as an automatic process which helps learners to fix words in the mind. As a consequence, both reading and writing become faster; however, this step represents a huge obstacle for dyslexic students, because of their phonological deficit and their unstable transition from the phonological decoding to the orthographic stage. They have lower levels of syllabic awareness and "short-term memory capacity" (Kormos, Smith, 2012: 73).

2.4 Reading and writing skills in comparison

Once children have passed through the three stages afore mentioned, the crucial period for "literary acquisition" could be considered completed (Frith, 1985: 309).

In the following table Frith (1985: 311) represented the progress of both reading and writing, which shows a different development. Each phase is divided into steps and then into levels identified by number subscripts (level 1 identifies a basic skill, whereas level 2 and 3 are advanced abilities).

TABLE 13.1
The Six-step Model of Skills in Reading
and Writing Acquisition

<i>Step</i>	<i>Reading</i>	<i>Writing</i>
1a	<i>logographic</i> ₁	(symbolic)
1b	<i>logographic</i> ₂	<i>logographic</i> ₂
2a	<i>logographic</i> ₃	<i>alphabetic</i> ₁
2b	<i>alphabetic</i> ₂	<i>alphabetic</i> ₂
3a	<i>orthographic</i> ₁	<i>alphabetic</i> ₃
3b	<i>orthographic</i> ₂	<i>orthographic</i> ₂

First of all, the table shows that when the logographic skill has reached level 2 in reading, then it can be used also in writing. Consequently, the logographic stage reaches level 3 in reading, whereas the alphabetic strategy is used in writing (step 2a, level 1) to analyze words (phonemes and onsets). Then in step 2b alphabetic strategies achieve level 2 in writing and then the same strategy is also adopted in reading. Finally, the orthographic strategy develops in reading (step 3a, level 1), thus preceding similar development in spelling. In writing (step 3a) the alphabetic skill reaches an advanced level (level3) and then it is used the orthographic strategy (level 2).

As a consequence, it seems clear that in this model of skills there is a step of divergence in strategies and then a step of convergence in reading and writing. Moreover, reading is fundamental to develop the logographic strategy and the orthographic one, whereas writing is essential to strengthen the alphabetic skill.

2.5 Phonological and Lexical reading

As far as reading is concerned, Coltheart (2005: 12-15) introduced the *Dual-Route Approach*. At the alphabetic stage children use a phonological system to decode words, then at the orthographic stage they can read words fluently, because they recognize words at first sight. In this last phase learners follow a lexical route and do not read a word following phonetics rules. When children read a known word they generally do lexical reading because they immediately recognize the term which was stored in their mental lexicon³¹, thus the time they spend to read a word depends on the frequency of

³¹ The mental lexicon is a type of mental dictionary which contains all information about single words and graphemes (phonology, morphology, semantic and syntactic elements). In order to have a detailed explanation it is possible to consult the online source at <http://medind.nic.in/jak/t08/i1/jakt08i1p181.pdf>.

usage of it. However, this type of reading does not enable to read non-words and it implies to follow a non-lexical route. As a consequence, it is possible to introduce two different kinds of reading:

1. The phonological reading (developed at the alphabetic stage) which is useful to read non-words.
2. The lexical reading (developed at the orthographic stage) which is adopted to read learned words.

In the first phase, children generate a conversion of grapheme-phoneme and starts to blend the phonemes to recognize the sounds of the word they have read. After having read a specific string several times, they start to memorize it. For example in a string like “tavolo” (table), it could happen that a child begins to divide the word in syllables and then he/she starts interiorizing the phonetic form after some hesitation between a syllable and another [ta:v’olo]. Finally, after long periods of exercise he or she is able to remember almost immediately the specific correspondence between the orthographic string and the phonological form [ta:v’olo].

In the lexical reading, a child uses the mental lexicon: a whole string has been associated to a phonological unit that does not concern a single phoneme or a syllable, but an entire word. The recall of this identification can be activated thanks to the recognition of the letters which form the string. Whenever the reader sees the letters which compose the word “tavolo”, the orthographic representation operates in the mental lexicon; as a result, the phonological form has been retrieved and thus its semantic content.

Even though it is not predictable when children use the lexical or phonological reading, it can be stated that lexical reading cannot occur without progressive training of phonological reading.

The dual processing route of Coltheart (2005) clarifies the reason why dyslexic children can recognize familiar words (nevertheless they are limited due to children’s poor working memory) and why they have huge difficulties in reading non-words or unfamiliar terms. The main reason is that the transition from the phonological decoding

into the orthographic form of a word results to be almost impossible due to their poor phonological awareness (Kormos, Smith, 2012: 30).

According to a research study “both phonological and lexical reading are delayed in Italian dyslexic children, but phonological reading is the most delayed” (Orsolini et al., 2009: 950). Although dyslexic students can recognize the grapheme-phoneme correspondence, they need more time to complete the task which cannot take place at the same time with blending and segmenting. The study of Orsolini et al (2009) reveals that the grapheme-phoneme conversion process is an important step in building orthographic memories of words, thus shaping a less fragmented phonological reading and reinforcing the lexical reading by the children.

After having considered these processes in mother-tongue acquisition, it seems clear that phonological and lexical reading represent an important stride on which all other skills depend. Generally, teachers start with a phonological approach, thus exercising children in recognizing letters and syllables; afterwards, once children has achieved a good level of correctness and speed, they propose reading activities, thus using decoding technique to comprehend sentences and texts.

With regard to dyslexic students, the passage from the acquisition of a decoding technique to its usage, represents a huge obstacle to overcome, because if they have not acquired a good level of phonological awareness and rapidity, they might have trouble in recognizing familiar words. Furthermore, while reading a text, they must activate the grapheme-phoneme conversion in order to acquire new words. As a consequence of an inadequate decoding technique, the process of memorizing lexicon and acquiring new terms is insufficient for understanding a text in depth.

2.6 Reading and writing difficulties in the Italian mother-tongue compared to English as a foreign language

Before analyzing the main difficulties a student must face while learning a foreign language, it seems essential to present the main problems dyslexic students need to overcome in order to succeed in their mother-tongue. It is also important to compare Italian with English in order to understand possible similarities and differences between the two languages.

Italian is defined as a *transparent* language (Morchio et al, 1989: 143), in which the correlations of grapheme-phoneme are almost perfect, thus each grapheme corresponds to a sound. Unlike English (a *opaque* language), Italian is considered a more regular language, which has few irregular words. There are particular homophones (for example “anno” and “hanno”), words which have the same pronunciation but different spelling and meaning, and few homographs (For example the word “ancora” is both a noun and an adverb; in the first case it corresponds to “anchor”, in the second case it signifies “again”), that means words with the same spelling but different meaning.

As far as pronunciation is concerned, in Italian the same letters are pronounced almost always in the same way, apart from few exceptions³²:

- The letter “c” can correspond to two different sounds:

-Hard sound = “c” + “a”, “o”, “u”: “c” is pronounced as /k/ for instance “cane” /'kane/, “coda” /'koda/, “cuscino” /kuf'fino/.

-Soft sound = “c” + “e”, “i”: “c” corresponds to the sound /tʃ/ for instance “cena” /'tʃena/, “cimitero” /tʃimi'tero/.

This rule is the same also for the letter “g”. In English “c” and “g” have soft sounds if they are followed by “e”, “i” or “y” for example “center”, “cigarette” or “cycle”, “gentle”, “giant” or “gym”. However, there can be always exceptions such as “gift”.

- In Italian the letter “c” followed by “h” + “i” or “h” + “e” has a hard sound as /k/: “chilo” /'kilo/, “cherubino” /keru'bino/.

This rule is the same also for letter “g”. In English the *ch sound* is generally unvoiced and pronounced as /tʃ/³³ as for example in the following words: “chest”, “check” or “chicken”. The last term is interesting because it contains the hard sound /k/ followed by the combination of “c” + “k” /'tʃɪkɪn/. With regard to the combination of “g” + “h” the corresponding sound is always hard: “ghost”, “ghastly” or “gherkin”.

³² All the following examples are inspired by the personal experience of my students and Morchio et al, 1989: 144-149.

³³ Apart from some exceptions such as “character” and “chemist”.

In Italian there are some exceptions in which two graphemes correspond to one phoneme:

- “gh” and “ch” = hard sounds, whereas in English “gh” has a hard sound such as “ghost” whereas as mentioned above “ch” corresponds to different sounds for example “chair” and “choir”.
- “gn” as in “gnomo” /'ɲomo/ which corresponds to the sound /ɲ/. Unlike Italian, in English this grapheme has one sound and is pronounced /n/ as in words “gnome” /nəʊm/ or “campaign” /kæm'peɪn/.
- “ci” and “gi” = soft sounds in Italian. In English the pronunciation of “ci” and “gi” can change for example “city”, “cite”, “circulation” or “give” and “ginger”.
- “gl” as in “bagagli” /ba'gaʎli/³⁴. This sound does not exist in English.
- “sc” + “i”, “e” as in “sciare” /'ʃiare/ or “scenario” /ʃe'narjo/³⁵. This sound is hard in English when “sc” is followed by “o” or “u” as in “scope” /skəʊp/ or in “scuffle” /'skʌfl/. If we have “sc” + “i” or “e” the pronunciation becomes more irregular, for instance “scissors” is /'sɪzə(r)z/ or “science” /'saɪəns/. Whereas the sound /ʃ/ usually corresponds to the “sh” grapheme, for example “share” /ʃeə/, “she” /ʃi:/, “shift” /ʃɪft/, “shore” /ʃɔːr/, “shuttle” /'ʃʌtl/ and “shy” /ʃaɪ/.³⁶
- When “sc” and “gl” are accompanied by “i” + “a”, “e”, “o” or “u” as in “sciarpa” /'ʃarpa/ or “figlio” /'fiʎlo/, the vowel “i” is silent. The same happens when “c” is followed by “i” + “a”, “e”, “o”, “u” as in “ciambella” /tʃam'bella/, “cieco” /'tʃeko/, “ciotola” /'tʃotola/, “ciorra” /'tʃurra/. In English there are only few words with “sc” + “i” + a vowel for example “science”, “scientist”, “scion” in which “scie” and “scio” are pronounced /'saɪə/.
- The sound /ku/ can be represented by different graphemes:

³⁴ In all other cases “gl” + other vowels different from “i” and if “gli” is preceded by “n”, “gl” is pronounced as two sounds, for example “globo” /'globo/ or “anglicano” /angli'kano/.

³⁵ Once “sc” is followed by “a”, “o”, “u” the sound is hard as in “scala” /'skala/, “scopa” /'skopa/, “scusa” /'skuʃa/.

³⁶ There are other sounds that correspond to the phoneme /ʃ/, however in this chapter I do not intend to give an in-depth analysis of English phoneme-grapheme correspondences. The main focus is determining the main difficulties a dyslexic student could face while studying Italian and the possible similarities or differences with English as a foreign language.

-“qu” as in “quadro” /'kwadro/.

-“cqu” as in “acqua” /'akkwa/.

-“cu” as in “cuoco” /'kwoko/.

In English the grapheme “cqu” does not exist, “qu” generally corresponds to the /qu/ phoneme as in “question” /'kwɛstʃən/, whereas “cu” can be more irregular, for example in “cute” is pronounced /kju:t/ and in “customer” it becomes /'kʌstəmər/.

The majority of dyslexic students mistake the following words:

-Instead of “cuore” they generally write “quore”.

-Instead of “quadro” they usually write “cuadro” and as a consequence all words deriving from it, for instance they mistake “soquadro” with “socquadro”, “soquadro” or “socuadro”.

- The sound /h/ is always mute in Italian as in “che” /'ke/ or in the verb “ha” /a/. Whereas in English at the beginning of a word it is generally aspirated as in “hamster” /'hæmstər/, however in some cases it can be silent as in “hour” /aʊər/.

Another particular aspect of Italian is the doubling of consonants which can be perceived as a longer sound, for instance “palla” /'palla/ is different from “pala” /'pala/. In English the double letter is written as in “ball” but the pronunciation is /bɔ:l/ or in “cattle” it is pronounced /'kætl/: the double letter does not have a phonemic function. Dyslexic students find many obstacles in hearing and remembering the doubling consonants, due to a lack of visual and auditory memory.

As far as the morphological dimension is concerned, a regular number of dyslexics have trouble with writing words in Italian which could represent similar words, for instance “torta” can be read or written as “trota”, mixing the letters inside the first term. Similarly in English children could confound words such as “eat” and “ate” or “but” and “tub”.

Other difficulties in Italian can be experienced in identifying diminutives, pejorative words or nicknames for example instead of “pupazzino”, “pupazzaccio” or

“pupazzetto”, children could misread them and write “pupazzo”. The previous examples have shown that generally pupils affected by dyslexia may omit suffixes.

As stated before, in Italian there can be particular homophones. Unlike English³⁷, the Italian homophones can be homographs at the same time. An evident example is “miglio” which can mean both “mile” or “millet”, the pronunciation is the same. Other examples can reveal homophones in the pronunciation, but not in the written form, for instance “l’ago” and “lago”. As can be seen they are written differently because in the first case there is an article, in the second, only the noun. However, the pronunciation is the same, thus dyslexic students can be deceived by this apparent similarity.

As regards homographs, the Italian language presents few words that are written in the same way but because of a different accent they have dissimilar meaning. A clear example is the word “pesca”, in which we do not have to write the accent, thus it does not generate trouble in writing. As regards the pronunciation the situation changes because “pèsca” (peach) is the fruit, whereas “pésca” (to fish) indicates the action of fishing. Even though, “è” and “é” are classified as phonemes in Italian, the words are homographs because you generally do not write the accent except for the oxytones, some monosyllabic words such as “lì” (there) or “nè” (neither). An example of homograph in English is the word “ring” which can be both a noun and a verb; in the first case it refers to a jewel, in the second case it means sounding a bell or phoning a friend.

Unlike English, in Italian stresses are accented in a word when they fall on the last letter of a term (always a vowel). For example, “però” (but) is different from “pero” (pear tree) or “(io) farò” (I will do) is different from “faro” (lighthouse).

In English stress is divided into:

-*Word stress*: it is one of the most important elements in speaking. For example “photograph” /'fəʊtəgræf/ is pronounced differently from “photographer” /fə'tɒgrəfə:/ and from “photographic” /,fəʊtə'græfɪk/. Word stress is really difficult for non-native speakers, first of all to understand English-speaking people and secondly to communicate clearly with them.

³⁷ An example of homophone is “tail” and “tale”.

-*Sentence stress*: is another key aspect for speaking and understanding in English. In a sentence, some words are stressed, while others are weak, it depends on which words you want to highlight. For example in the sentences: “I NEED a BREAK”, “need” and “break” are stressed to give emphasis to what you want to say, they can be considered as key words³⁸.

Other writing mistakes dyslexic students could experience in Italian could be the incorrect use of the letter “h”. As afore mentioned in chapter 1.3 while talking about dysorthographia, the most common mistake is the lack of “h” for the verb “to have” (io ho, tu hai, egli/lei ha, essi/esse hanno). As can be noted, the verb “to have” exhibits the letter “h” in all persons, apart from the first and second-person plural. Furthermore, if the third-person plural “hanno” (they have) is written without “h” that is “anno”, it has another meaning: “year” in Italian.

Equally important is to consider the mistakes due to incorrect words segmentation, blending and spacing (Morchio et al., 1989: 149). An example is “invece” (instead) which can be written in the wrong form “in vece”, “soprattutto” in the incorrect form “sopra tutto” or “l’onore” in the wrong form “lo nore”.

From the observation of the case studies proposed in chapter 5 and the analysis of Morchio et al. (1989), it can be stated that the main written mistakes in Italian are due to:

- Orthographic mistakes.
- Errors in the phoneme-grapheme correspondence.
- Lexical inaccuracies.
- Addition of consonants or omission of double consonants.
- Confusions or substitutions of letters.
- Confusing homophones and homographs.
- Segmentation of words, blending and use of space.

³⁸For clearer examples it is possible to visit the BBC website at <http://www.bbc.co.uk/worldservice/learningenglish/flatmates/episode61/languagepoint.shtml>

To conclude, it can be added that even if Italian has been presented as a more regular language than English due to the almost identical correspondence between phoneme-grapheme, the language may present more irregularities in writing than in reading (Morchio et al., 1989: 159). On the basis of these considerations, it could be interesting to reinforce those skills with which dyslexic students have trouble in order to achieve a higher level of awareness. As a consequence, both reading and writing could improve.

2.7 Dyslexia and language

Children learn how to speak by imitating their parents. After the first inaccurate attempts, they improve the phonatory system and produce correct sounds. Initially, speech can present some anomalies such as the absence of particular phonemes (the sound /r/ will be dealt later), the substitution of similar phonemes, the omission of certain phonemes in complex syllables, the alteration of sounds and the contraction of words in their phonetic context.

Apart from the anomalies in the articulation, dyslexic students may have problems in the organization of a whole sentence. In some cases they use words without articles, pronouns, prepositions or in other cases the sentence contains a great number of words but they are not in the correct syntactic order. Thus, children with the difficulties mentioned above may learn how to read later. Moreover, the grapheme-phoneme association translate into the corresponding image and its meaning will be a difficult task to ascertain and in some cases almost impossible.

It can be added that many times dyslexic children are not supported through effective methods because the first difficulties are not sufficiently taken into account. Children who learn late how to read are sometimes left to follow their slow steps without personalized teaching interventions. However, due to this carelessness it could happen that phonetic difficulties, which could be corrected at an early stage remain hidden at elementary school, thus becoming barriers to learning for children in the long run.

CHAPTER 3 DYSLEXIA AND ENGLISH AS A FOREIGN LANGUAGE

Before starting to analyse the project of two case studies it is essential to understand the reasons why learning English as a foreign language is a complex challenge for dyslexic students.

As stated in the previous chapters, the main factors that cause problems in learning Italian, and as a consequence English, as a foreign language are the following: (Schneider, Crombie, 2003: 4)

- Difficulties in recognizing grapheme-phoneme relationships.
- Weak short-term and working memory.
- Problems with finding the right words in both speaking and writing.
- Slower speed of analysing, processing and performing.
- Difficulties in distinguishing similar sounds, thus causing problems in translating them into their orthographic forms.
- Problems of automating specific processes.
- Syntax, grammar, comprehension difficulties.

3.1 Learning English as a foreign language: main difficulties

Generally, students with poor performance in English are often accused of lack of motivation and laziness. However, this is not true because it may happen that constant failure in learning a foreign language could cause negative consequences from an emotional point of view. There can be multiple causes: (Daloiso, 2014: 22-23)

- Students are aware of the difficulties they have had to face in order to learn their mother-tongue. For example, reading in front of other peers, improvising group activities in which students must speak in English, or answer general questions related to text comprehension.
- The certainty of being poor foreign language (FL) learners due to their reoccurring bad marks generates a feeling of inability.

•There is a feeling of non-acceptance because of having a different way of learning. As a consequence, once they are diagnosed with dyslexia or other learning differences they unwillingly accept special treatment such as individualized tasks and tests. Thus, the attitude towards English worsens and learning a foreign language becomes a nightmare.

These underlying forms of discomfort inhibit dyslexic learners and even worsen the main factors which make learning English difficult.

As far as English is concerned, one of the main reasons that defines it a difficult language for poor language learners, is due to the incongruities in the orthographic correspondences of the phonemes. Unlike Italian, dyslexic learners have difficulty in reading and writing English words. Apart from certain words that can be considered transparent if a student learns the main grapheme-phoneme relationships, it is necessary to find new strategies in order to decode other less transparent words. Moreover, the presence of homophones and homographs could cause further problems.

In order to consider some of the difference between Italian and the English written code we can use the following chart:

Italian
Number of consonants: 16
Number of vowels: 5 (<i>a, e, i, o, u</i>). However, the vowel <i>e</i> and <i>o</i> can be both closed and open: <ul style="list-style-type: none"> • /è/ as in “lento” /lènto/ (slow) • /é/ as in “pesca” /pésca/ (fishing) • /ò/ as in “però” /però/ (but) • /ó/ as in “pero” /peró/ (pear tree)
Types of syllables: <ul style="list-style-type: none"> • Open syllables which end with a vowel: <i>ca, pa, ta</i>. • Closed syllables which end with a consonant: <i>non, il, ster, val, in</i>.

- Digraphs and trigraphs: for example, *gli, gn, sce, sci*.
- Groups of consonants: for example, *tr, str, cr, fr, br*.

English

Consonants: 21 including *y*, which has also four sounds according to its position inside the word. Moreover, /*c*/ and /*g*/ can be pronounced hard or soft.

Vowels (5) can be long and short. A long vowel is pronounced like its name, for example “*a*” /*eɪ*/ in “*lake*”, whereas a short vowel has a short sound such as /*æ*/ in “*apple*”.

Digraphs: 8, *ch, tch, ng, nk, qu, sh, th, wh*.

Vowels pairs can be pronounced in different ways, for instance:

- *Pool/foot*
- *Beach/break/read/heart/earn*
- *You/bought/thought/cough/bough/borough*
- *Mow/owl/cow*

Groups of consonants: 34

Rule of silent letters which are written but not pronounced: *b, d, l, g, gh, h, k, n, p, s, t, w*.³⁹

For instance *comb, handsome, half, sign, sight, hour, know, island*.

Six Types of syllables:

- Open syllables: only one vowel⁴⁰ at the end of the syllable. For example *she, me, no, spy*.

³⁹In order to have more examples about the rules of silent letters it is possible to visit the following website <http://www.myenglishteacher.eu/blog/list-of-words-with-silent-letters-in-english/>

- Closed syllables: only one vowel and end with a consonant. For instance *dog, cat, had, fish, ask, on*.
- Silent-*e* syllables: Vowel + consonant + *e*. As in *mode, cake, fate, ice, tune*. The *e* changes the sound of the previous vowel which is pronounced long as its name.
- Consonant + *-le* syllables: for example *candle, angle, marble, miracle*.
- Vowel-*r* syllables: in these syllables only one vowel can be followed by an *r*. In some cases there can be a silent *e* after the *r*. Some examples are *river, driver, giver, care, fare*.
- Vowels-cluster syllables: there can be two or three syllables or a vowel-consonant unit with particular sounds. For instance *may, pie, toe, fee, bound*. Each group of syllables can produce different sounds according to the meaning or the origin of the word.

Some letters are pronounced differently according to their position inside a word, for instance:

- /y/ is pronounced /j/ at the beginning of a word as in *yellow, yes, yet, yawn, yesterday*.
- /y/ is pronounced /i/ at the end of a word as in *clumsy, happily, tidy, bunny, funny*.
- /y/ at the end of the first syllable of a word it becomes /ai/ *shy, by, my, fly*.

There are homophones in which the sound is the same but the orthographic transcription is different, for example *see* and *sea, scene* and *seen*.

There are homographs, words with the same spelling but different meaning, origin or pronunciation which can be divided into subgroups:

- Different meaning and origin: the word *bear* can be both a noun and a verb. In

⁴⁰ The pronunciation of vowels is influenced whether they are open or closed and whether they are stressed or not.

the first case it is an animal, in the second it means “to carry”.

- Words with the same spelling but different stress: if the word *import* is a verb it is pronounced /ɪm'pɔ:(r)t/, in the case of the name /'ɪmpɔ:(r)t/.
- Words with the same spelling but different pronunciation and meaning: the verb *read* can be pronounced /ri:d/ in the present tense, whereas /red/ in the past tense. As a consequence they also differ in meaning.

As can be noted, English letters can change their pronunciation independently from the supposed rules according to their position inside a word. So, dyslexic students must first memorize the English alphabet, in which the consonants have a similar sound to Italian, whereas the vowels need extra exercise in order to make the distinction between short and long vowels. Moreover, students need to training in recognizing particular sounds given by consonants and vowels in digraphs.

3.2 Interference of the native language in studying a foreign language

Dyslexic students may encounter persistent difficulties in learning a foreign language also because the mother-tongue and the different language structures of Italian and English may interfere in the process of acquisition. According to Schneider and Crombie all skills required to develop a foreign language can be influenced by “weaknesses in linguistic coding skills” (2003: 5). It can be added that dyslexic students could have further difficulties in a foreign language processing due to different reasons:

- From a psychological perspective dyslexic students should remember the previous experience of learning Italian, and as a consequence they can translate the same schemes into a new learning practice.

- Phonic interference (Weinreich, 1968: 18-21) can be categorized into three different cases:

- Under-differentiation of phonemes: it could happen that the sounds of English could be confused because they are not included into Italian. For example, dyslexic learners may fail to distinguish short and long vowels.

-Over-differentiation of phonemes: may occur when particular elements of Italian are imposed on English. For instance, the gn sound /ɲ/ exists only in Italian, as a consequence dyslexic students generally read the word “sign” as /sajɲ/ instead of /sam/.

-Re-interpretation of particular elements: this phenomenon could take place when dyslexic students give relevance to peculiar elements of Italian on English, even though they are superfluous. This is what happens when students reduplicate consonants in English because of the gemination. For instance “ball” /bɔ:l/ could be pronounced incorrectly and become /bɔ:ll/.

As far as the acquisition of grammar elements of a new language is concerned, dyslexic students can be influenced by their first language system. According to Weinreich (1968: 38-39) this interference of the mother-tongue on a foreign language can affect different types of grammar elements such as the word order inside a sentence, the subject agreement and dependent marking elements⁴¹.

It can be stated that for children with learning difficulties and in particular for dyslexic students acquiring English as a foreign language becomes a more difficult challenge. First of all, because they lack automaticity (Schneider, Crombie, 2003:6-7) in Italian grammar structures and they have poor reading, writing, comprehension and speaking skills. Secondly, it is important to consider that dyslexic learners also have poor phonological-orthographic and consequently grammatical-syntactic skills, but also reduced short-term and working memory. As a consequence, the assimilation of a new language system needs to be planned by means of focused teaching in order to prevent anxiety and scholastic failure.

3.3 The importance of phonological and orthographic awareness

According to Schneider and Crombie (2003:167) researchers have tended to connect poor phonological skills with dyslexia difficulties only since the last twenty years. As stated in the previous chapters, children with problems in recognizing the grapheme-phoneme correspondences are more likely to have reading difficulties, first of all in their mother-tongue and as a consequence in a foreign language.

⁴¹ This paper does not concern the acquisition of grammar elements of a foreign language. For further explanation see Weinreich (1968: Chapter 2.3).

In chapter 4 this paper intends to analyze a teaching method for Italian native-speaking students to learn English as a foreign language. Moreover, the following research project is based on the Phonological Coding Deficit Hypothesis (Nijakowska, 2010: 43-46) according to which dyslexic students have trouble with the recognition and use of sounds which hinder the acquisition of the grapheme-phoneme correspondences. However, the relation between phonological awareness and orthographic awareness is essential for developing good reading and spelling competence (Nijakowska et al, 2013: 60).

As a consequence, children affected by dyslexia should be supported with didactic works focused on strengthening phonological processing skills together with orthographic awareness, which represent the first step in language processing.

Moreover, it can be stated that the method based on improving phonological and orthographic awareness is not only useful to dyslexic students but also for all poor learners who, despite not being diagnosed as being dyslexic need further exercise to improve their language skills.

3.4 Research aims

The primary purpose of this study is to support students affected by dyslexia with activities focusing on stimulating phonological and orthographic awareness. This study investigates a field which rarely receives sufficient attention in the Italian setting because the textbooks⁴² in use at school generally aim more at improving the communicative skills rather than stimulating phonological awareness, teaching sound-symbols correspondences and making grammar comparisons between the mother-tongue and the foreign language.

On the one hand, this research intends to integrate the existing techniques adopted to support dyslexic students at school. On the other hand it tries to propose a focused strategy in order to face the main problem dyslexic students must face in learning English as a foreign language; and that is the recognition of the phoneme-grapheme correspondences which are so important in reading.

⁴² The students I have been supporting adopt the following textbook:
Bowen, Philippa, Denis Delaney. High Spirits 2. Oxford: Oxford University Press, 2012.
Bowen, Philippa, Denis Delaney. High Five 2. Oxford: Oxford University Press, 2014.

To conclude, the following case studies propose activities which need further investigation, in order to extend them to a classroom context and identify the positive and negative responses of both students affected by dyslexia.

3.5 Research predictions

As stated in the previous chapters, one of the main consequences of dyslexia is the lack of good reading skills in the mother-tongue. In 1989 Sparks and Ganschow introduced the Linguistic Coding Differences Hypothesis (LCDH) according to which phonological, orthographic and all other connected skills in the native language (Ganschow et al, 1998: 249) determine the basis in the process of learning foreign languages.

Although in recent years most teachers have adopted a communicative and natural approach to teaching English as a foreign language, studies demonstrate that a direct course of phonological-orthographic processes are crucial for dyslexics (Ganschow et al, 1998: 253).

As a consequence of a teaching focused on relieving reading difficulties in the foreign language, dyslexic students could improve the same skill also in the native language too (Nijakowska, 2010: 68). Language improvement is possible provided that dyslexic learners are supported with specific and gradual activities.

As far as the metacognitive strategies are concerned, students will be able to develop self-reflection and self-correction skills (2010: 150), when they are provided with opportunities to practice and to make a comparison between their first language and the foreign language (in this case English).

Therefore, as soon as dyslexic children are able to grasp the relation between the spelling patterns and their pronunciation, they gain better reading skills, and improve also the related skills of comprehension, writing and speaking.

Learning English as a foreign language change from being a huge challenge to a great opportunity from both a scholastic and a psychological point of view.

CHAPTER 4 THE RESEARCH PROJECT OF TWO CASE STUDIES

This chapter presents two case studies based on my personal experience of the private tutoring of dyslexic students. The activities proposed are focused on stimulating phonological and orthographic awareness. Moreover, the personal experience of the subjects (different aspects of life, from school context to the family environment) has been fundamental in understanding their problems. The materials and tools adopted during the research will be clearly presented, as well as the duration of the study and finally the analysis techniques.

The purpose of this research is to propose possible teaching strategies to support dyslexic students studying English as a foreign language. The study has been developed after having taken into account the text-books in use at school and all materials created explicitly for dyslexic pupils attending the lower secondary school.

This paper seeks to answer the following question:

1. Can a multi-sensory teaching method used for phonological awareness training and sound-letter relationships of English as a foreign language help dyslexic students to make progress in decoding a foreign language?

4.1 Research method

The students receive support for their problems connected with dyslexia in all the subjects they are studying at the lower secondary school, however we dedicated three hours a week to purposely focus on the special activities in one-to one lessons. From all students with learning difficulties I chose two young learners who held an official document certifying the diagnosis of dyslexia and who had considerable difficulties in learning both Italian and English. Before the students started to attend my private studio I had a meeting with their parents in order to collect all information I needed to compile the personal profile of the students and to understand the point of view of parents. It is important to analyse each single case taking into account the family perspective, the teachers' observations and the student's experience. In order to collect the data I needed

I prepared some forms⁴³ that I completed after the interviews with the parents, the professional who diagnosed the child, the English teacher and the coordinator.

After the first meeting with the parents I contacted the staff that diagnosed the student with dyslexia in order to examine in depth the students' difficulties compiled in the Personalized Didactic Plan (PDP).

Finally, I had a meeting with the English teacher of the young learner in order to know the kind of approach was used at school, the types of tests used, the compensatory instruments used and the relationships between the student, his peers and the teacher. I had the possibility to consult the books used to support the dyslexic students in the classroom context⁴⁴.

After having created a clear profile of the student I invited the parents to visit my studio together with their child, in order to give him or her the possibility to break the ice before starting the lessons. Right from the first meeting it is fundamental to establish a good relationship with the child because my approach attaches great importance to the manner in which learners are accommodated.

During the first one-to one lesson with the pupil I interviewed the learner about his or her learning difficulties. I started with general questions regarding his or her favourite subjects focusing then on his or her problems with English.

I used a logbook where I noted down the information I collected both after the meetings and after the lessons with the students. I particularly focused on the student's feelings and my personal thoughts about the pupil and the activities performed.

Before starting each lesson I generally ask the pupil to express his or her feelings and invite him or her to compile the form *How do you feel today?*⁴⁵ useful to collect daily data about the student's emotional state. At the end of the lesson I encourage the pupil to express his or her thoughts on the activities done. Then I do the same.

⁴³All forms can be found in the *Appendix*.

⁴⁴Recently, English teachers have adopted the texts:

Bowen, Philippa, Denis Delaney. *High Five Grammar for Students with Dyslexia*. Oxford: Oxford University Press, 2015.

Bowen, Philippa, Denis Delaney. *High Five Tests for Students with Dyslexia 1-3*. Oxford: Oxford University Press, 2015.

⁴⁵See the *Appendix*.

4.2 Subjects and personal experience

Student A: is a boy who attends the second year of the lower secondary school. He regularly attended five years of primary school, but he was diagnosed with dyslexia before starting the second year of the lower secondary school. The Individualized Didactic Plan highlights the following difficulties:

- Reading problems (more in speed than in correctness and comprehension). He sometimes inverts the position of the letters or substitutes them. As far as text comprehension is concerned, he is able to grasp the general meaning of a passage but not the details. In the listening tests he gets a “pass” mark.
- Writing: some problems of dysgraphia.
- Severe problems of dysorthographia. The student writes in block capitals and he is slow in this process. He has trouble with tracing regular graphic patterns.

He makes the following errors:

-phonological mistakes: namely he confuses the graphemes *b-p, b-d, f-v, q-p, a-e*. He omits, adds and inverts letters and syllables.

-Non phonological mistakes: fusion and elision of elements, changing homophones homographs, omission or adding of the letter *h*.

-Other mistakes: omission of accents, omission or adding of consonants, lack of apostrophes and capital letters.

He can write simple sentences and texts. Moreover he has trouble in writing from dictation and copying from the blackboard due to his slowness.

- Memory skills: he has difficulty in remembering dates and names.
- He has problems of dyscalculia but in particular in solving geometrical problems and tasks which contain a great number of logical processes.
- Working memory difficulties.
- Problems of organization and lack of study strategies.

- Problems in learning foreign languages.

As far as the overall description of the student is concerned, it is possible to compile the following chart:

DESCRIPTION OF THE STUDENT I COMPILED AFTER THE FIRST ONE-TO ONE LESSON	
Diagnosed Dyslexia	At the beginning of the second year of lower secondary school.
Psychological Approach	The student has no self-confidence, he does accept having to do different tests from his peers and having to use compensatory tools.
Main anxieties	He thinks that he cannot learn English because he does not understand anything during school lessons. When the teacher talks to him he would like to disappear from the class, because his peers start to laugh and he does not know the reasons.
Physical problems	He does not have particular physical problems.
Motivation in studying	He believes that studying is a waste of time because he always gets bad marks, mainly in English, which he detests.
Main Skills and difficulties	Teachers have declared that he always proposes good ideas and in difficult situations he tries to suggest possible solutions. The student has huge problems in foreign languages, mainly English.
Interests	He would like to become a farmer because he adores working with nature. He will attend a high school which gives him the possibility to do practical activities. He absolutely detests English.

Days of English one-to one lessons	Twice a week: Wednesday and Saturday (sometimes also on Monday).
Attention Span	It depends on his mood. There are good and bad days. He is highly influenced by the relationships with his peers and teachers. Negative events can reduce his attention span to zero, whereas if he is supported in a positive way, his motivation and attention span increase.
Distractibility	He generally gets distracted only if he has some negative thoughts which absorb him. He often needs a break every half an hour.
Concentration/Tiredness	It depends on the subjects. If he had English lesson he is very tired because of the huge stress.
Teaching Strategies adopted by his English teacher	<p>The English teacher aims at achieving minimal goals to reach a pass mark. She does not prepare personalised tasks to do at home, but leaves him the possibility to choose the exercises.</p> <p>The tests generally are:</p> <ul style="list-style-type: none"> -Listening. -Translation. -Reading a text in class. -Answering questions asked by the teacher from those proposed the previous weeks. -Vocabulary tests. <p>The tests are divided into two parts: the first is needed to reach a pass mark and the other to obtain a higher mark. Student A needs only to do the first part.</p>

The parents and teachers agree on the fact that Student A has problems in accepting his learning differences and in some cases his problems caused derision and embarrassment. However, the main problems involve both Italian (mother-tongue) and English languages.

As far as the mother-tongue is concerned, he exhibits the problems described in the previous chapters, whereas in English, the main difficulties are:

- Demotivation and disinterest in learning English and consequent loss of self-confidence.
- Difficulty in reading simple words because of the incongruence between the phoneme-grapheme correspondences.
- Difficulty in writing simple sentences such as “where are you from?”, “do you play football?” due to trouble with syntactic structures.
- Problems of attention in class because he cannot follow the lessons, in some cases he feels lost because he says that his teacher speaks too fast and he does not understand anything.
- He has a poor vocabulary and as a consequence the speaking skills are also insufficient.
- Under dictation he writes the words as they are pronounced, only a few words are correct.
- He has severe difficulty in reading because he does not know most of the words present and if he uses the dictionary he wastes time searching for the words.

Student B: the same age and time of diagnosis as student A, but he attends the second year of the lower secondary school at different school. The Personalised Didactic Plan underlines the following difficulties:

- Problems of reading due to lack of speed and correctness.
- Writing difficulties. He writes in block letters and make some mistakes:

-He omits, adds or inverts letters and syllables.

-*Non phonological mistakes*: fusion and elision of elements, omission to add of the letter *h*.

-*Other mistakes*: omission of accents, omission or addition of consonants, lack of apostrophes and capital letters.

- Language skills: there is considerable discrepancy between oral performance and writing tasks.
- The student does not have problems of dyscalculia but in some cases he has trouble with solving geometrical problems and exercises with long explanations.
- Working memory difficulties.
- Problems of organization and lack of strategies in studying.
- Although he has good skills in writing in Italian, he has problems with foreign languages, mainly with English.

As far as the overall description of the students is concerned, it is possible to compile the following chart:

DESCRIPTION OF THE STUDENT I COMPILED AFTER THE FIRST ONE-TO ONE LESSON	
Diagnosed Dyslexia	At the beginning of the second year of lower secondary school.
Psychological Approach	The student is self-confident and has accepted his learning difficulties well. He is willing to try new strategies to improve in English. Before being diagnosed with dyslexia the bad marks in foreign languages were attributed to his laziness.
Main anxieties	He thinks that his English teacher does not understand him because she is

	always accusing him of indolence. As a consequence, he is generally anxious before an English test or he does not study because he knows that he will not be able to get a good mark.
Physical problems	He does not have particular physical problems.
Motivation in studying	In general the student is motivated because the only negative marks he gets are in foreign languages and sometimes in Maths. However, in French he has fewer difficulties because his teacher tries to help him with simplified tests.
Main Skills and difficulties	He shows better skills in work groups, but he has difficulty in working memory and sometimes he completes the tasks assigned in a hurry.
Interests	He would like to have a small farm because he adores animals and being in contact with nature and he loves cooking. He wants to learn English in order to travel abroad.
Days of English one-to one lessons	Twice a week: Monday and Wednesday.
Attention Span	During the one-to one lessons he is always willing to learn new things, but he has difficulty in following English and Maths lessons.
Distractibility	He never gets distracted when he is alone. However, in class he is distracted by his peers.
Concentration/Tiredness	He can study for no longer than one hour at a time. After that he needs a break in order to recuperate.

Teaching Strategies adopted by his English teacher	<p>Before the diagnosis the English teacher defined the boy as a lazy student. The tests generally are:</p> <ul style="list-style-type: none"> -Listening. -Grammar tests. -Dialogues in a pair. -Oral comprehension. -Vocabulary tests. <p>The student does the same tests as his peers.</p>
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Parents and teachers agree on the fact that Student B has problems in learning foreign languages, mainly English. After a meeting with his speech therapist she told me that Student B has a type of dyslexia which is difficult to identify. Even if he had received good marks in all tests, he still had huge problems with reading, which could be a result of completing a task too speedy. However, the main problem concerns English.

As far as the mother-tongue (Italian) is concerned, he has the problems described in the previous chapters, whereas in English his main difficulties are:

- Demotivation and disinterest in learning English, perhaps because he has a difficult relationship with his teacher.
- Difficulty in reading simple words because of the incongruence between the phoneme-grapheme correspondences.
- Difficulty in speaking because he is not able to respect the word order of a sentence and he has a poor lexicon.
- Problems of attention in class because he cannot follow the lessons, most of the time he does not do the homework and he never studies the grammar.
- Under dictation he writes the words as they are pronounced, only a few words are correct.
- Severe difficulty in reading because he does not know most words in the texts.

4.3 Materials and tools adopted in the research

The materials used in this research project were forms⁴⁶ which I compiled after meeting with the parents, the specialists, the teachers and the students themselves. These materials were useful to delineate the profile of the learners.

I also had the possibility to consult the Personalized Didactic Plan (Piano Didattico Personalizzato) of Student A and B and the English teacher's textbook⁴⁷ specific for students with learning difficulties and special needs, which in this case the respective teacher did not use to prepare the tests but to propose simplified activities. Moreover, I had a copy of all English tests the students took during the year.

In a logbook I noted my personal daily thoughts and expectations about the activities proposed, the student's positive and negative experiences and responses, the pros and cons of the tasks which I prepared. I preferred not to record the lessons because I think that students need to feel comfortable in order to improve and explore new strategies. An approach cannot be effective if the student does not feel free from prejudices and critical observations. I used the voice recorder to help the students with the pronunciation. As a consequence they had the possibility to exercise also at home.

In order to perform the activities the students had the possibility to use a laptop and an iPad, but also photocopies and paper materials in order to combine both technology and traditional methods.

As stated before, I followed a multisensory approach, thus students could benefit from different channels and choose the best for themselves.

The exercises I have suggested take their cue from Orlassino (2014), Nijakowska (2010:155-178), Nijakowska et al (2013:60-69), Schneider and Crombie (2003: 32-42) and Kvilekval (2007). In the following paragraph I propose some examples to help understand the types of activities proposed; however, the explanations are not exhaustive in all their parts because the above-mentioned authors have already offered various suggestions which can be adapted to different teaching needs.

⁴⁶ All sample forms can be consulted in the Appendix.

⁴⁷ The textbook contains English tests created for dyslexic students.

4.4 Duration of the research

The research project lasted three months, from October to December 2015 (even though I have been the private tutor of Students A and B for the last two years). I met each student individually twice a week, and the total hours of the research add up to thirty. Each lesson lasted an hour and half because I supported the students with their homework, and then I dedicated the other part to the activities. I used the Italian mother-tongue with the pupils to explain the rules and the exercises.

It is worth observing that this project would like to offer a possible strategy to support the traditional teaching adopted by English teacher of Italian lower secondary school. As a consequence, further studies need to be conducted in order to extend the activities proposed to a whole class of students and for a longer period of time.

4.5 Procedure

Before starting the following activities the students should know the pronunciation of all the letters in the English alphabet. If not, it is recommended that the teacher takes time to go over these, proposing funny activities⁴⁸.

The lessons are divided into two parts. The first half an hour is fixed and it consists of exercises regarding:

- Vowel sounds
- Consonants sounds
- Syllable divisions
- Spelling activities

In the second part, students can do activities on missing vowels, consonant blends, phonological-orthographic awareness, vowel combinations, prefixes and suffixes,

⁴⁸ If a student has trouble with the English alphabet and the consonants, it is appropriate to dedicate a lesson to revise this essential step. Magnetic letters can be used while repeating the alphabet together with the student. Modern technology such as YouTube videos and interactive games allow practice by means of motivating activities. I generally use an enjoyable application called “Alphabetics” to check the students knowledge of this topic. It is available on the internet (e.g. <http://www.fordyslexia.com/gettheapp/>). Another useful website for alphabetical activities and other exercises such as songs and stories is <http://www.angles365.com/>.

deleting compound words, finding rhyming words, segmenting sentences and syllables and syllable classifications. However, the duration of this part depends on the student's attention span and fatigue.

The activities are gradual because the learner needs to slowly acquire all rules in order to interiorize them and make progress.

Moreover, each lesson should start by checking the tasks the students did at home and repeating exercises or explanations in case the pupils have some uncertainties. Students appreciate the use of technology in these kinds of activities. Thus, I generally use Google Drive or other means such as Whatsapp, Telegram, Facebook and emails, depending on the student's preference, in case I have to send him something.

The first lesson should introduce the student to a contrastive analysis which could help him in making a comparison between Italian and English, thus recognizing similarities and differences.

Lesson aims: teacher's presentation-learning with delight and serenity.

Material used: flashcards.

Teachers's presentation: I communicate with the student in both Italian and English:

Buongiorno/Good Morning!

Il mio nome è/My name is

Io sono il tuo tutor d'Inglese/ I am your English tutor

I suggest in Italian that when I meet a student I say that "Good Morning" means "Buongiorno". I also explain that it is possible to say "hello" or "hi" when you meet a friend, which means "Ciao". When the lesson finishes I say that "Goodbye" or "Bye bye" means "Arrivederci". While I am explaining I also mime the situation, using gesture, movements and flashcards with the words used in the presentation, written in both Italian and English.

Activity n.1: a culture note activity which intends to propose English as a different language from Italian.

Material used: magnetic letters.

Aim: understanding the difference between Italian and English in grapheme-phoneme correspondences.

During the first activity it is important to present to the dyslexic student the main differences between Italian and English, from both a cultural and a language point of view.

As an illustration, I ask the student what he knows about England regarding its geographical position, flag, food tradition, main monuments, words, namely whatever is useful to grow his interest. Moreover, when the student talks for example about English breakfast, I ask him to note down the main differences from Italian cuisine and I share my personal experience together with him.

In doing so, the student can immediately understand that while studying English making a comparison between this foreign language and the mother tongue is extremely important. Indeed, these activities can be helpful to introduce the first correspondence to examine: the letter-sound relation in English.

After having introduced the culture example, I point out the difference between pronouncing an English word and writing it. For example I write, using magnetic letters, the word “good” and pronounce it /gʊd/. Then I add that other words contain silent letters like ‘g’ in morning /'mɔ:(r)niŋ/ (always writing the word by means of the letters), a peculiar difference between Italian and English. Taking into account the fact that dyslexic students are different from each other, due to other learning differences such as dyspraxia, dyscalculia, attention deficit, hyperactivity disorders and Asperger’s syndrome, it seems to be important to use a multi-sensory method in order to shape learning around each student. Thus, the activities I propose can be applied in a class composed of students of mixed-abilities, considering that a diversified and stratified teaching can help not only dyslexic students or those with specific learning difficulties, but even pupils who need more effective activities to develop their language skills.

VOWEL SOUNDS

Activities n.2: creation of personal phonics cards, sound-letters training.

Material used: iPad, flashcards and magnetic letters.

Aims: learning short vowels sounds.

After the first presentation, I draw the student's attention to the first elements of phonetics, showing him a poster with all the English sounds to put on the wall, and also English phonics cards. Then, he makes his personal phonics cards, copying them from a video projected on the iPad.

After having prepared the flashcards, the student starts to exercise on the vowel sounds, which are necessary to compose all words, both in English and in Italian. I show him a chart in which the first vowel sounds are presented:

Short Vowel Sounds		Picture
A	Cat	
E	Bed	
I	Pig	
O	Octopus	
U	Umbrella	

The activity is divided into three parts:

1. First of all, I explain that unlike Italian, English vowels can be short and long. While explaining the difference between short and long vowels, I use my voice to point out what I mean, for example the vowel "a" has a different sound in *cat* /kæt/ and *game* /geɪm/. I employ my flashcards to show that *cat* and *game* contain the same vowel (a), but the pronunciation is totally different. Then the student has to repeat the two words together with me and secondly I ask him to use the magnetic letters to compose the words I spell (*cat* and *game*). The exercise focuses on the sound-letter relationship of these two words. Then, in order to train further I read and use pictures of new words and the student has to tell me if they contain long or short vowels:

1. Tap Long/Short

2. Tape Long/Short

3. Egg Long/Short

4.Key Long/Short

5.Fine Long/Short

6.Fin Long/Short

7.Box Long/Short

8.Rose Long/Short

9.Bus Long/Short

10.Music Long/Short

The previous activity is useful to remind the student of double vowel sound. After having presented this distinction, we focus on short vowels. In the sample exercise I have put a word which contains the corresponding vowel. It is important for the student to fix in mind the sounds and a key word to remember each of them.

After having explained the importance of vowels, first I read each one together with the corresponding word (for example I say “a” as in cat, c-a-t), trying to highlight the position of the mouth in pronouncing them, then the student reads them together with me, and finally he reads them alone.

2. In the second part of the exercise I show the student a flashcard with a short vowel and he must choose one of the sample words which contains the same sound. Using the magnetic letters he writes the words. The exercise is focused on memory training, thus the student should not look at the paper and even if he misses the word or the pronunciation, I correct it and then he repeats the exact word.

3. Finally, I use the alphabet flashcards to compose other words and I read each one two times: first as you pronounce the word, then as you spell it. The student must decide if the word contains a short vowel or not. In this part the student does not need to know the meaning of the words, but simply to recognize the short vowel sounds. Each new word that contains short vowels are put aside and at the end of the exercise I repeat each pronunciation and spelling together with the student, who has also to add them to a “word book”⁴⁹ we create for this purpose. The words are written in two ways: as you

⁴⁹ In this “word book” the students note down all new words they find, but they do not follow an alphabetical order, thus avoiding the problem of homogenous inhibition. It recalls, as Kormos

write the word and as you pronounce it. Moreover, once new words are added, we sign the date, thus the student can observe the quantity of words learnt, the spelling and the translation, consequently reinforcing the vocabulary of both languages. Following the multi-sensory learning approach it is helpful to draw a small picture of the word next to its translation, the visual input can help the student in expanding the vocabulary in both languages. As far as the pronunciation is concerned, students can record each word on their mobile phone, as a result they can also train at home, listening to the word list of the day.

The words chosen for the last exercise can be taken from the text-book in use at school, thus helping students to train their memory capacity so that when they have to face grammar exercises, they can perform better knowing the meaning of the words.

Tasks to do at home: the student must read again all the words present in his “word book” and record his pronunciation. If the student prefers he can create a digital book.

Other useful exercises the students can do at home to train vowel sounds are the following:

1. Use the consonants and add a vowel to create letter combinations then try to read and spell them, for example:

na	ka	sa	ta	wa	fa
za					
ne	ke	se	te	we	fe
ze					

The student has to use all consonants together with vowels sounds and write the combinations in a word document.

2. The same exercise can be done inverting the position between consonants and vowels as follows:

an	ak	as	at	aw	af
az					

and Smith (2012; 70) suggest, “the tendency to mix up similar looking, sounding and meaning items (words, letters and sounds)”.

en ek es et ew ef
ez

It is important to make the students aware that generally ‘c’ and ‘g’ have hard sounds (even though there are always exceptions for example the word “gentle”) such as in the words “cat” and “got” and in Italian they have a double pronunciation, for example “cane” is different from “ciao”, and “gatto” is different from “gioia”.

MISSING VOWELS

Activities n.3: the student must fill in the missing vowel to make real words.

Material used: iPad, magnetic letters and pen and paper.

Aims: exercising with the vowel sounds and recognizing words.

In this activity I propose to the student the following list of words⁵⁰:

1. H__t	5. D__g	9. S__t
2. C__t	6. F__x	10. V__t
3. P__t	7. H__g	11. F__n
4. C__p	8. B__x	12. M__p

The student must employ the vowels in order to create as many words as possible using magnetic letters. Then he pronounces the words created and writes all them down.

After having created the list, I read each word one time and the student follows me.

In order to strengthen the phonological-orthographic awareness I ask the learner to read the words and I write them on my iPad, then we reverse the roles, I read the words at random and the students have to write them correctly.

⁵⁰The students can see each word at a time on my iPad, because the graphic-stylistic screen adaptation is important to dyslexic students. For more information it is possible to consult the Dyslexia Style Guide at http://www.bdadyslexia.org.uk/common/ckeditor/filemanager/userfiles/About_Us/policies/Dyslexia_Style_Guide.pdf or Dalouis, *Lingue straniere e disturbi specifici dell'apprendimento*, 2014.

Finally, the student should find English words which rhyme with those present in their lists. They can make use of their magnetic letters to create the combinations.

Task to do at home: the student must create an exercise similar to those I have proposed. He must think about C+V+C words using the dictionary or other technological tools.

CONSONANT SOUND

Activities n.4: the /ch/, /k/, /sh/, /tch/and /ntch/ sounds

Material used: iPad, flashcards, magnetic letters, pen and paper.

Aims: exercising with the first special sounds which introduce the particularities and the irregularities of English.

The student has to remember that “ch” inside a word can have different sounds:

- generally “ch” makes the /ch/ sound as in “chat”,
- however it can also be a /k/ sound as in “chord”,
- or /sh/ as in “chef”.
- When words come from French or Greek and they present a short vowel before “ch”, thus we have to add “t” before the /ch/ sound to separate it from the vowel as in “switch”.

As far as the /nch/ sound is concerned, all vowels are short.

Students use their magnetic cards to write the words and the flashcards to recognize the sounds.

Then I read the student other words and he must recognize the type of sound:

/ch/ Sound	/k/ Sound	/sh/ Sound	/tch/ Sound	/nch/Sound

Anchor-chaos-patch-bench-catch-champ-chop-character-inch-machine-chin-mechanic-lunch-witch-brochure-kitchen-rich-such-technology-echo-ranch-cliché-

much-match-punch

Task to do at home: the students must search in a text taken from the internet or their scholastic textbook, words which contain the preceding sounds.

These activities will be repeated in the same way also for all consonants sounds.

CONSONANT BLENDS

Activities n.5: beginning and ending consonant blends.

Material used: iPad, flashcards and pen and paper.

Aims: introduce the students to consonant blends which could be at the beginning or at the end of a word. The following exercises are useful to recognize distinct consonant sounds and to create existing words.

This activity is divided into two parts. In the first one I read the students the following non-words made up of two or more consonants which together blend into each other:

St	Fl	Dr	Gr	Br	Sn	Sc
Sw	Cl	Sp	Tw	Tr	Sm	Gl
Bl	Sl	Fr	Cr	Pl	Sk	Pr

Str	Scr	Spl
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The students must read the non-words back and then think about words which begin with these consonants, for example “stand”, “clever”, “strike” or “smile”. The student uses the magnetic letters to create the words and then reads them.

In the second part I propose to the student an exercise in which he must split the words according to the consonant blends (at the beginning of each word):

Stopflowdrivegrowbrothersnailscabswimclapsplittwentytrainsmellgladblowsleepfreecr

yplayskyproudstrangescreensplit
Stop flow drive grow brother snail scab swim clap split twenty train smell glad blow sleep free cry play sky proud strange screen split

The same approach and exercises will be used to explain the phenomenon of consonant blends at the end of a word. The student read the following groups of consonants:

st	Lk	Lf	Mp	sp	Lm	Ld
rm	Nt	Ft	Pt	sm	Lt	Sk

Then he thinks about words which end with these consonants, for example “talk”, “storm”, “soft” or “risk”. The student uses the magnetic letters to create the words and then reads them.

In the second part I propose to the student an exercise in which he must split the words according to the consonant blends (at the end of each word):

Fastfolkwolfcampgraspalmgoldstormcountsoftoptmaltspiltask
Fast folk wolf camp grasp palm gold storm count soft opt malt spill task

Finally, the student must recognize words with consonant blends at the beginning, in the end and in both parts of the word and divide them into three groups. The words are:

Bell-snag-stamp-splint-tram-drug-smile-miss-silk-raft-clump-trend-brag-bend-bent-dust-stop⁵¹

⁵¹ Further exercises can be found in Pamela Kvikval, *Insegnare l'Inglese ai bambini dislessici*, 2007.

Begin. consonant blends	Ending consonant Blends	Beg/end consonant blends
For example: <u>t</u> ram	R <u>a</u> ft	<u>s</u> tamp

Tasks to do at home: the student must find more words to insert in the last chart.

PHONOLOGICAL-ORTHOGRAPHIC AWARENESS

After having introduced all consonant sounds, the activities start to become more complicated.

Activities n.6: the student must complete unfinished words, selecting the correct sounds.

Material used: iPad, voice recorder, pen and paper and flashcards.

Aims: identification of sounds and corresponding orthographic form.

I read the following sentences, omitting some words, then the student must choose the right sound from the box below. The sounds can be used more than once. The student can read from the iPad:

Ank-sh-ick-ch-th

1. If you are polite, you say “th _____” you.
2. My sister has a new gold fi_____.
3. When you are not well you feel s_____.
4. Please, sit down on your _____ air.
5. Yesterday I found a cat in the bu_____.
6. Every morning I bru_____ my tee_____.

As soon as the student has found all the words, I invite him to listen to me while recording my voice on his mobile phone, in order that he has the possibility to exercise at home.

Tasks to do at home: the student must create ten sentences as in the exercise aforementioned.

VOWEL COMBINATIONS

Activity n.7 : recognizing vowel combinations (letters combinations and not sounds) inside words.

Material used: iPad, flashcards.

Aims: separating words into their units thus recognizing consonant and vowel sounds.

Vowels can combine in three different ways⁵²:

- They can appear in cluster within a single syllable, for example “coat”.
- They can combine with a consonant or consonants to become a particular unit for example “straw”.
- One or two vowels can be followed by “gh” (igh, eigh), for example “might”. The “gh” is usually silent.

For example ay-ai-ey-ei-eigh are pronounced as a long “a”. I read the following words:

May-Day-Today-Play-Say-Pay-Grey-They-Money-Valley-Key-Rain-Pain-Praise- They-Eight-Weight-Veil

The student repeats them and prepares some flashcards in which he writes some of them with their phonetic transcription in order to play “memory”.

Task to do at home: the student has to find twenty new words, record his pronunciation, write the phonological transcription of the terms and prepare two sentences with some of them.

This type of activity can be used also with other vowel combinations, for instance:

- au, aw, augh, wa, all, ald, alk, alm, alt.

⁵² In order to have more examples it is possible to consult the following website <http://www.phonicsontheweb.com/vowel-combinations.php>

- E-vowel combinations.
- I-vowel combinations.
- O-vowel combinations.
- U-vowel combinations.

Learning new words is fundamental to finding a great number of irregularities.

PREFIXES AND SUFFIXES

Activity n.8: breaking up words to recognize how the meaning of a word can become deducible.

Material used: iPad, flashcards, pen and paper.

Aims: once a student looks at a word, he must notice if it contains suffixes or prefixes in order to recognize the nature of the term (a verb, a noun, an adjective). Moreover, this skill can help him to understand the meaning of a word. It can also be helpful in spelling exercises.

For instance, I introduce to the learner three prefixes:

- *De-* as in “decrease”. *De-* means “from, down, away reverse, opposite”, thus if the student does not know the meaning of decrease he could deduce it could be something that goes down.
- *Pre-* as in “prehistory”. *Pre-* means “before”, thus “prehistory” could be something that happens before history.
- *Non-* as in “nonsense”. *Non-* means “not”, thus “nonsense” is the opposite of “sense”.

While explaining the prefixes I propose to the student to think about possible examples in Italian, in order to make a comparison. Moreover, I ask him to use the dictionary to find other words with the prefixes I suggested him.

After that, I introduce the suffixes:

- *-ed* as in “worked”. The suffix *ed-* can identify the past tense or the past participle of a verb.
- *-ing* as in “sleeping”. This is similar to the previous example because *-ing* is always added to a verb in order to form the gerund.
- *-less* as in “friendless”. The suffix *-less* means “without”, thus “friend” (*amico*) and “less” (*senza*) could be a reference to a person without friends.

I invite the student to use his magnetic letters in order to create new words with the previous suffixes.

Task to do at home: the student must write sentences using words which contains also prefixes and suffixes. For example: Yesterday I saw a submarine but it disappeared soon. (sub + marine; dis + appeared)

DELETING COMPOUND WORDS

Activity n.9: a word can be composed of two or more terms.

Material used: iPad, flashcards, pen and paper.

Aims: the student needs to develop observational skills while looking at a word. He must consider the prefixes and suffixes of a word, but also to observe if it is the union of two different terms.

I tell the student to clap for the syllables in “popcorn” and then I ask him to write the words which compose “popcorn” with his magnetic letters.

Next, I show him the words “snow” and “man” and I suggest him to put the words together and then to take “snow” away. He notices that “man” remains alone and so does “snow”.

Finally, I ask the learner to write in a flashcard the following words:

Blue-bell-door-bird-washer-dish-cake-cup-light-star-case-book-room-bed-fish-star
--

He has to use the flashcards to compose words using two terms together, then he has to read the words and spell them using his fingers in air, thus imaging writing with pen and paper.

Task to do at home: the student is asked to find ten compound words, then he has to transcribe their phonetic forms, to create a sentence for each term and then to record his pronunciation.

SYLLABLE DIVISION RULES

Activity n.10: learning syllable division rules.

Material used: iPad, flashcards, pen and paper.

Aims: this exercise is important in the understanding of the proper pronunciation of a word. The student starts with simple words and progresses to dividing more complicated words into syllables⁵³.

First of all, it is important to present some examples in order to teach the rules:

- Prefixes and suffixes have to be separated: “de-crease”, “work-ing”.
- If there are two or more consonants next to each other they have to be separated: “ob-ject”, “of-fer”.

However, if two consonants make one sound together they are not separated:
/th/, /sh/, /ph/, /th/, /ch/, /wh/.

- Long Vowel + consonant: you must divide the word before the consonant, as in “ba-by”.
- Short Vowel + consonant: you must divide the word after the consonant, as in “riv-er”.
- Word ending with “-ckle”: you must divide the word before the “-le”, as in “freck-le”.

⁵³The student can be helped using a syllable counter at the website <http://www.syllablecount.com/>. It is useful because in addition to counting the number of syllables, it also pronounces the words. Therefore, it can become a useful tool to adopt while completing the tasks at home.

- Word ending with consonant + “le”: you need divide one letter before the “-le” as in “ta-ble”.
- Word ending with vowel + le: you have to do nothing as in “male”.

In order to practice, it is possible to find a great number of websites which offer the possibility to play while learning.⁵⁴

RHYMING WORDS

Activities n.11: writing poetry using rhyming words.

Material used: iPad, flashcards, pen and paper.

Aims: the student must compose small sentences using rhyming words, thus learning to recognize the sounds.

I propose to the student these examples:

Yesterday I found a cat

That it was not my pet

Thus I called a friend

Who was leaving for the weekend

He decided to come to me on foot

But the cat escaped into the wood.

Following my example the student now tries to do the same. He can use the dictionary to complete the task⁵⁵.

The second exercise consists of giving the student a list of words:

Peace-play-take-bed-mountain-tender-clean-fish-shower-cold-feeble-jelous-my-type-

⁵⁴The following website is an example of exercise to divide words into syllables.
<http://www.learninggamesforkids.com/vocabulary-games/syllables/break-them-up-science-syllables.html>

⁵⁵ The student can also use a free rhyming dictionary which is available at the website
<http://www.rhymer.com/>

kind

He has to find as many words as possible which rhyme with each of them. Moreover, he must form five sentences with the rhyming words he has chosen.

Task to do at home: the student must write the phonetic transcription of the words list he has created and record his pronunciation.

SPELLING ACTIVITIES

Activities n.12: creating a spelling list.

Material used: iPad, flashcards, pen and paper.

Aims: the student must write correctly the words that I spell and he has to pay attention to the sounds which make up the words. Spelling activities are useful to make a comparison between the orthographic transcription of a word and its pronunciation.

In this type of activity the student should circle in his textbook or in a newspaper ten words he does not know. After having selected them I spell the words and the student must write them correctly. Then I record the correct pronunciation on his mobile phone, so he can practice at home. Then, I spell the words again and he must write them correctly using his magnetic letters. He must transcribe the phonetic correspondence with his flashcards and then pronounce them correctly.

In the second part of the activity the student must open the dictionary and find three words that he does not know. He must read the phonetic transcription with the help of his flashcards and then he has to spell the word in order that I can guess it.

Task to do at home: the student has to write two sentences in two ways; first of all, using the orthographic form and secondly the phonetic transcription. In the next lesson he must read the sentences by means of the phonetic language.

SEGMENTING SENTENCES AND SYLLABLES

Activities n.13: creating sentences to spell.

Material used: iPad, flashcards, pen and paper, small blocks.

Aims: the student must compose some sentences, writing each word using the magnetic letters on small blocks. Thus, he can separate the words which form the whole sentence. Then he has the possibility to divide each word into syllables.

I give the student some words:

The-dog-black-a-man-yesterday-friend-people-chocolate-adores
--

He can choose some of these words to create a sentence: for instance “The black dog loves chocolate”.

Then he has to write each word on his blocks using his magnetic letters:

The	Black	Dog	adores	Chocolate
-----	-------	-----	--------	-----------

The blocks can be separated in order to count the number of words which compose the sentence.

In the second part of the exercise, the learner must take each single block and divide the words into syllables.

Task to do at home: the student must create ten sentences, record his pronunciation, divide them into words and finally divide them into syllables.

SYLLABLE CLASSIFICATION

Activities n.14: creating groups according to the number of syllables.

Material used: iPad, flashcards, pen and paper.

Aims: the student must divide some words in syllables and choose the group they belong to.

One syllable	Two syllables	Three syllables
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Cat-ball-fun-character-understand-medicine-customer-December-family-belt-

finishing-explain-telephone-convince-fasten-boss-scooter-cake-shampoo-contact-
finish-cash-Thursday-bag-handle-number-chicken-rocket-dog-cattle-fog-dinner-ear-
liberty-holiday-afternoon

First of all, I read the words one time and then the student has to repeat the task. Then, I read the words again and he uses the magnetic letters to write and to divide them into syllables.

Once he has finished, he reads again the words and I record his pronunciation. In case he makes a mistake I correct him and he starts from the beginning.

It is possible to change the exercise: I give the students some words divided into syllables and he should read each part of the word. After saying all the parts, he blends them together and says the word.

Then, I cover the word and pronounce it while the student must write it from memory and say it aloud. To give an example:

For-get-ful	_____
Te-le-phone	_____
Jack-et	_____
Mon-ster	_____

Task to do at home: the student must listen to the recordings in order to practise with the pronunciation of the words. Moreover, he has to transcribe the phonetic form of each word and then record himself, while reading the terms by means of the phonetic language.

4.6 Analysis techniques

The analysis have been conducted with regard to the student skills before starting the research project and at the end considering the speed, correctness and orthographic-phonological awareness when:

-I dictate to the student some words and he should write them according to the grapheme-phoneme correspondences.

-He must read a list of words.

-From the previous list the student must find ten rhyming words.

-The student must spell five non-words.

-He must divide five words into syllables.

-The student must read in English a small part of a text.

CHAPTER 5 DATA ANALYSYS

A general remark about the data analysis in this research project is that the sample activities have been proposed only to two dyslexic students. As a consequence the results and the discussion should be considered as a possible alternative to be examined in depth in the future, applying the phonological-orthographic strategy in teaching English as a foreign language to a higher number of dyslexic students and in a classroom context in order to define the validity of the activities proposed to students with different learning needs and strategies. The data collected reveals what is proposed in the following tables.

•In writing, each word was given a score corresponding to its total number of graphemes.

Table 5.1 Dictated words

Dictated words	Graphemes	Student A before the study	Student A after the study	Student B before the study	Student B after the study
Beautiful	b-ea-u-t-i-f-u-l 8	2	8	7	8
Many	m-a-n-y 4	3	3	4	4
Then/than	th-e-n/th-a-n 3	2	3	3	3
Play	pl-ay 2	2	2	2	2
Could	c-ou-ld 3	0	2	2	3
What	wh-a-t 3	3	3	3	3

Little	l-i-tt-l-e 5	2	3	2	5
Just	j-u-s-t 4	2	3	2	4
Fat	f-a-t 3	3	3	2	3
Where/were	Wh-e-r-e/ W-e-r-e 4	4	4	4	4
Total score	39	23	34	31	39

The student could receive one point for each correct grapheme and the total points were 39. If the student spelled the word “wh-a-t” as “wh-o-t”, only two graphemes were correct thus meriting two points.

•In reading the students were instructed to read aloud the following list of words.

Table 5.2 Reading words

List of words the student must read	Phonemes	Student A before the study	Student A after the study	Student B before the study	Student B after the study
Telephone	/'telɪfəʊn/ 3	/'telefon/ 1	/'telɪfon/ 2	/te'lefon/ 1	/'telefon/ 1
Saturday	/'sætə(r)deɪ/ 3	/'saturdeɪ/ 1	/'saturdeɪ/ 1	/'saturdeɪ/ 1	/'saturdeɪ/ 1

Family	/'fæm(ə)li/ 2	/'fæmili/ 1	/'fæmili/ 1	/'fæmili/ 1	/'fæmili/ 1
Working	/'wɜ:(r)kiŋ/ 2	/'wɜ:(r)kiŋ/ 2	/'wɜ:(r)kiŋ/ 2	/'wɜ:(r)kiŋ/ 0	/'wɜ:(r)kiŋ/ 2
Appetite	/'æpətait/ 4	/ə'petit/ 0	/'apətait/ 3	/'appetit/ 0	/'apətait/ 3
Entertain	/,entə(r)'teɪn/ 2	/,entər'taɪn/ 1	/,entər'teɪn/ 2	/entreitig/ 0	/,entər'tɪn/ 1
Character	/'kærɪktə(r)/ 3	/'karaktər/ 1	/'karaktər/ 1	/ke'ratʃtər/ /ka'rakter/ 0	/'karaktər/ 1
Attend	/ə'tend/ 1	/a'ttend/ 0	/ə'tend/ 1	/a'ttend/ 0	/ə'tend/ 1
Multiply	/'mʌltɪplaɪ/ 2	/'mʌltipleɪ/ 0	/'mʌltɪplaɪ/ 2	/mʌlti'pleɪ/ 0	/'mʌltɪplaɪ/ 1
Place	/pleɪs/ 2	/pleɪs/ 2	/pleɪs/ 2	/pleɪs/ 2	/pleɪs/ 2
Total Score	24	9	17	5	14

The student could achieve one point for each difficult phoneme pronounced correctly (phonemes in red) and the total point could be 24. If the student read the word “attend” as /a'tend/, the first grapheme which could give a point is not correct, thus he obtained zero points. Not all phonemes receive points because this exercise considers only those which do not have a transparent correspondence as in Italian (for instance /-tend/ of “attend” is read in the same way as it is in Italian). In this case I have not taken into

account the correctness of the accent of the word, however in the following chapter this parameter will be considered.

•Rhyming words test: the student had to find as many rhyming words as possible with reference to the previous list.

Table 5.3 Finding rhymes

Words to find rhymes		Student A	Student A	Student B	Student B
		before the study	after the study	before the study	after the study
		Rhyming words			
Telephone	/'telɪfəʊn/	Phone 1	3	Phone-iphone 2	3
Saturday	/'sætə(r)deɪ/	Friday 1	6	Friday-Monday 2	7
Family	/'fæm(ə)li/	0	3	Emily 1	4
Working	/'wɜ:(r)kɪŋ/	0	12	0	10
Appetite	/'æpətait/	0	2	0	2
Entertain	/,entə(r)'teɪn/	Train 1	3	0	3
Character	/'kærɪktə(r)/	Father 1	5	0	6
Attend	/ə'tend/	0	4	0	3
Multiply	/'mʌltɪplaɪ/	0	6	0	8
Place	/pleɪs/	0	3	Face 1	5

Total score		4	47	6	51
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Each student received a point for every correct rhyming word he was able to find. For instance, if he wrote three rhyming words for “telephone”, he received three points.

•In the following activity the student had to divide five words into syllables.

Table 5.4 Dividing words into syllables

Words	Syllable division	Student A Before	Student A After	Student B Before	Student B After
Number	Num-ber 2	Nu-m-ber 1	2	Num-ber 2	2
Battle	Bat-tle 2	Bat-tle 2	2	Bat-tle 2	2
Mistake	Mis-take 2	Mis-take 2	2	Mis-ta-ke 1	2
Hamburger	Ham-bur-ger 3	Ham-bur-ger 3	3	Ham-bur-ger 3	3
Afternoon	Af-ter-noon 3	Af-ter-no-on 2	3	Af-ter-no-on 2	3
Total score	12	10	12	10	12

The student could receive a point for each correct syllable unit. For instance, if he divided the word “number” as “nu-m-ber” he would receive only one point. The total score corresponded to twelve points.

•In the following exercise first of all the student must write the following non words I spelled:

Table 5.5 Spelling non-words

Non Words	Student A before	Student A after	Student B before	Student B after
Camber 6	Cimbir 4	6	Cimbir 4	6
Wook 4	Wook 4	4	Wook 4	4
Ponable 7	Ponable 7	7	Pomebli 5	7
Piwder 6	Pawder 5	6	Pawdir 5	6
Clut 4	Elyt 2	4	Clut 4	4
Total score 27	22	27	22	27

Students received a point for each letter they were able to write correctly.

Finally, the student had to read a small passage taken from one of the textbook in use⁵⁶.

It all started with a mouse!

Today the Walt Disney Company is very big. But in the 1920s it was very small. Everything changed when Walt Disney created a little cartoon mouse called Mickey. At first he called the character Mortimer, but his wife, Lillian, didn't like it and she suggested the name Mickey.

Mickey first appeared in the cartoon, *Plane Crazy*, in 1928. Critics liked the film, but the big Hollywood film studios didn't want to buy it because it was a silent film – the characters didn't talk in it. So Walt Disney added sound to the *Mickey Mouse* cartoon *Steamboat Willie* and it was an immediate success.



Mickey's first words on film were 'Hot dog!' At first Walt Disney did the voices of both Mickey Mouse and Mickey's girlfriend, Minnie. Walt Disney gave Mickey a high, squeaky voice and people loved it! They also loved his clothes: yellow shoes, red shorts with braces and white gloves.

Student A and B had never read the text before. As a consequence, this test was based on reading at a glance. Before starting the research project, I chose an easy assignment to give the students the possibility to feel comfortable and in some cases to foresee the words presented in it.

At the end of the study I tested them using the last paragraph of the previous text and the final part of it.

⁵⁶ This extract has been taken from the online expansion of the textbook *High Spirits Digital 2*. Oxford: Oxford University Press, 2012.

https://elt.oup.com/elt/students/highspiritsitaly/highspiritsdigital/dislessia/level2/Unit_4_Culture_club_Reading_p47.pdf?cc=it&selLanguage=it

Mickey's first words on film were 'Hot dog!' At first Walt Disney did the voices of both Mickey Mouse and Mickey's girlfriend, Minnie. Walt Disney gave Mickey a high, squeaky voice and people loved it! They also loved his clothes: yellow shoes, red shorts with braces and white gloves.

After *Steamboat Willie*, Mickey Mouse became the world's favourite cartoon character. He appeared in a lot of *Mickey Mouse* cartoons and he soon had his own *Mickey Mouse* comic.

In 1955 he made a TV programme, the *Mickey Mouse Club*. The *Mickey Mouse Club* became a popular children's programme in America. It had news, cartoons, music and comedy. Britney Spears, Christina Aguilera and Justin Timberlake all started their careers as presenters on the show.

Today, children and adults all over the world still love Mickey Mouse. He's the symbol of the Walt Disney Company because Walt Disney never forgot that 'it all started with a mouse'.

The evaluation was based on the speed and correctness of reading. In this case the student did not receive points. This part was useful in making a comparison between the student's skill before the activities proposed in the previous chapter to stimulate phonological-orthographic awareness at the end of the study.

Observing the tables, it is possible to state that both students have made progress after having practice with the activities afore mentioned. Moreover, before starting the project they demonstrated better abilities in writing words under dictation than reading.

Their absolute lack of phonological awareness led them to achieve the lowest score in the exercise in regard to rhyming words.

As far as syllable division is concerned, they tried to do the exercise without knowing any rules, however they confided in their Italian knowledge. Nevertheless, they didn't have large problems in this type of exercise.

Finally, in the non-words task both students confounded the vowels *a* /ei/ and *e* /i:/ with *i* /ai/ and vice versa. Moreover, Student A mixed the sound of *u* /ju:/ with *y* /wai/. In the case of Student B he inverted *m* with *n* and missed all *e* /i:/ sounds.

To conclude, the reading test was revealed to be extremely useful in understanding the huge problems both students had to face. Before starting the research project they missed almost all words, thus impeding the comprehension of the whole text. After having practiced with the exercises proposed in the previous chapter, they improved

considerably and were able to understand better. It must be noted that they made mistakes, however their approach in front of a text was completely different. They were not upset and they never stopped while reading.

CHAPTER 6 DISCUSSION ON FINDINGS

The data analysis has revealed a sizable progress in both student A and B. In particular I noted that students at the end of the study research had become more self-confident while doing the exercises, whereas at first they were sceptical towards learning English. Student A declared:

I think that I have no possibility to achieve a good mark in English because I don't understand anything. I am stupid and all my peers agree with me, because when the English teacher gives our tests back, she tells me that I made a disaster as always⁵⁷.

At the end of my research his attitude was different because he told his school teacher about the activities he had done and he felt she had changed her behaviour towards him, thus the possibility to reach a sufficient score became a reality. As a consequence his determination became stronger and he was able to leave his uncertainties back behind and try new strategies to become an independent learner.

Although Student B showed himself to be more self-confident, he had given up the idea of learning English because his teacher always accused him of being lazy and absent-minded. Before starting the project study he tried to hide his English homework and tests, because he believed himself to be a bad language learner, thus "it was not worth wasting time and money in an impossible challenge". When he started to recognize some English sounds and to write them correctly, he opened the door to new possibilities.

The main change I could observe in both Student A and Student B was their strategies in facing the challenge of learning English as a foreign language. However, I have to underline that I have had a good relationship with the students due to the fact that I have been their private tutor in all subjects for years. As a consequence, they trusted me and never avoided any activities I proposed to them. Therefore, it was easier to experiment with this new teaching method that nevertheless presented difficult aspects to implement.

⁵⁷ All students' thoughts and feelings are taken from my logbook. They allowed me to use their personal opinions in my paper.

Notwithstanding the fact that both students had no trouble with the English alphabet and had learnt the correct order and the pronunciation by heart at the elementary school, once I asked them some vowels or consonants at random they did not remember the names of all of them.

As stated in chapter 4, Student A had huge problems in both Italian and foreign languages, particularly in English where the phoneme-grapheme correspondence is difficult. In the first test Student A missed sixteen words. The correct terms were those in which there was a similarity with Italian, for example the consonants in “fat”. However, in this case student A was not able to recognize the short vowel “a” because he did not know about the existence of short and long vowels. The correct words were “where”, “what” and “play”, because he had memorized their orthographic forms. Student B revealed huge problems with the recognition of the vowels sounds, as confirmed in the non-words spelling task.

The same method was adopted in reading the list of words and the text. Similarly, although Student B had no particular problems in other subjects, he achieved lower score more in reading words than in writing from dictation where he missed unknown terms. For instance he wrote “litol” (as Student A) instead of “little”, or “giaste” (Student A wrote “giast”) instead of “just”, “coude” (Student A wrote “quod) instead of “could”. It can be noted that he confounded the final sound /d/ and /t/ for /de/ or /te/. When I asked him the reason why he wrote them he answered me that they were similar to the sound of the grapheme *the* /ði:/ that he wrote incorrectly as *te* and pronounced /de/.

It can be added that Student B had difficulties in recognizing sound-letter correspondences. This was confirmed when he had to read both the list of words and the text; he received 4 out of 24 points. He was not able to translate into phonemes the particular graphemes inside the words, especially when they were long and unknown. He applied lexical reading because he had no orthographic-phonological awareness.

Another interesting aspect to take into account is that both students had problems with word stress. In some cases, as in “attend” they were influenced by the second foreign language they had studied at school and pronounced the word with a French cadence. In the other cases, they stressed words more towards the end, as in /te'lefon/ (/'telefon/ Student A), in /multi'plei/ (both students) or in /kara'kter/ (Student B).

As far as syllables division is concerned, at first both students did not know any rules regarding this subject, so they relied on their Italian knowledge. As a consequence, in the word “mistake” Student B wrote “mi-sta-ke” because in Italian, in a word such as “asta” (pole) the syllable division becomes “a-sta”. Both students made the same error dividing “afternoon” as “af-ter-no-on”. Moreover, Student A divided “number” as “nu-ber” as he did not hear the sound /nʌm/, due to his poor skills.

In the exercise regarding rhyming words, learner B found terms as “phone”, “iphone” in rhyme with “telephone”, however for other words it was more difficult due to his poor vocabulary. Thus, he wrote words that were incorrect from a graphic point of view and also mixed with other terms. Similarly, Student A had huge problems in this activity because he did not know how to make the rhymes. He asked me precisely if the words had to have the same orthographic form in their final part, or an identical sound.

As far as text reading is concerned, both students revealed huge difficulties. First of all, they tended to read the terms as they are written⁵⁸, due to the influence of Italian. Once they had to read longer terms they started to lower their voice and hesitate. For example, Student B pronounced the word “entertain” many times and he shifted from /entritin/ to /entertain/. While reading the text, students were really upset, they became tired easily and paused at each single word for a few seconds. Sometimes they stopped and they had to be encouraged in order to proceed. Moreover, they did not care about the intonation or the punctuation and thus they were not able to understand the meaning of any word in the text. As a consequence, in order to perceive the overall meaning they needed to read it more than two or three times. Although Student A used his index finger to follow the words, he revealed weaknesses in reading in the same way as Student B.

In Italian as well as in English they made the following mistakes:

- Phonological errors
- Semantic-lexical errors
- Lexical mistakes
- Omission of words and sentences

⁵⁸ Most students of English as a foreign language have the same problem if they have never heard the words previously.

- Use of intuitive strategies

As far as the phonological mistakes are concerned, Student A had great difficulties in differentiating similar graphemes, for example *p* and *b*. In the first part of the text entitled “It all started with a mouse” he read the word “but” as /dʌt/, “appeared” as /ə'bbɪəred/ and “buy” as /dai/. Then he changed *d* to *q* and *u* to *n* and vice versa.

In addition, both students had problems in differentiating phonemes like *m* /em/ and *n* /en/, *c* /si:/ and *e* /ai/. As in Italian, the students confused graphemes which correspond to unvoiced and voice phonemes like *t-d*, *p-b*, *f-v*. However, in English the situation becomes more difficult given the presence of digraphs like *th*, *sh*, *ch* which have a particular sound.

Other mistakes are the omission, inversion, repetition and addition of syllables. For example, Student A read /crited/ for “created” thus omitting the pronunciation of /a/ and missing the other sounds, /mus/ instead of “mouse”, /karcater/ for “character”, /cristics/ instead of “critics”; whereas Student B read /steirt/ for “started”, /suggrested/ for “suggested”, /apparted/ instead of “appeared”, /holliuond/ for “Hollywood”.

The difficulty in proceeding from right to left, could also generate problems of decoding characterized by the adding of a grapheme or a syllable. Both students instead of “Today the Wald Disney Company is very big” they added “it” before “is” becoming “Today the Walt Disney Company it is very big” or in other cases instead of “what” they read “what’s”. This problem could be caused by the association of the pronoun “it” with the contracted form of the verb to be, whereas “what” and “where” are connected to the typical questions “What’s your name?” or “Where’s Peter?”.

Both students generally left out the reading of some parts of the words, thus omitting consonants, vowels and syllable decoding. One of the most frequent mistakes was the lacking of the “s” in plural nouns, in the third singular person, in the Saxon genitive and the lack of the verb “to be” in the present continuous. For instance, “they are reading” became “they reading”. Even if both students were encouraged to repeat the rule of present tense, they generally forgot both the reading and the writing of this element.

As far as the semantic mistakes are concerned, both students joined or divided some units or omitted and added *h*, but also omitted or added words or omitted final parts of words.

For instance, in the text “It all started with a mouse”, Student A read /evri/ instead of “everything”, /did/ instead of “didn’t”, and then in the final part, “the character didn’t talk in it” he omitted the pronoun “it”, whereas Student B omitted the “ed” of the past tenses, or in other cases he fused the units “it was” in “it’s”, or instead of “go to” he read /got/. Then he said /de/ for “with”, and /mus/ for “mouse”. In other cases both students confused “they are” with “their” or “there”, and “talking” instead of “talk in it” or “in” instead of “is” and “he” for “his”.

In the case of the lexical errors, both students sometimes substituted or modified words in the text, Student A said “in the was” for “it was”, /wis/ instead of “wife”, /girlfrid/ instead of “girlfriend”, whereas Student B read “sand” instead of “sound” or “Michelle” instead of “Mickey”.

In some cases students substituted words which had similar phonemes. For example, Student A said “war” instead of “world”, “take it” instead of “talk in it”, while Student B read “two days” instead of “today”, “him” instead of “his”, “what” instead of “want”, “boot” instead of “both”, “eyes” instead of “high”, “so” instead of “also”, “take” instead of “talk”.

Another difficulty which all dyslexic students have to face while studying English as a foreign language is the pronunciation of words that end with consonants. For example; “girlfriend”, “didn’t”, “silent”, “talk”. This happens because in Italian almost all words end with a vowel, and the students sometimes added an extra vowel. In the same way they tended to read the silent “e” at the end of many English words.

It can be stated that before starting this study both students showed major difficulties in both reading and writing, due to the influence of the mother tongue and the total lack of orthographic-phonological awareness. In the process of reading, students generally follow an inductive method rather than a decoding approach. While this could be a valid method for understanding the meaning of words, it represents a source of mistakes and obstacles for dyslexic students. I have noted that at first learners tried to decode the graphemes in the first part of the word, but in the second half they gave up and tried to guess the term. As a consequence, words could be transformed into other terms that were totally different from the original word, thus making the process of comprehension almost impossible.

The activities which I proposed proved to be useful to the students, because they began to analyse words from an orthographic-phonological perspective.

However, we have always to take into account the main difficulties students must face due to dyslexia, a life-long condition which nevertheless could improve by means of an effective strategy.

The main difficulty both of my students had to face was the introduction of something completely new for them because they had discovered English phonemes as “a strange way to write and pronounce English words”⁵⁹. At first I decided to create lessons which could be enjoyable and interesting, thus I suggested to the students that they should interrupt me if they became annoyed because they felt they were at school⁶⁰. Both students were free to express their opinions whenever they wanted.

I decided to dedicate the first lesson to introducing a different approach in which students were encouraged to take into account the influence of the mother-tongue while learning a foreign language. This is important especially for dyslexic students because they need to be supported in order to understand their difficulties, but also so they may become self-reflective and self-corrective.

I started proposing to them activities which concentrated on short and long vowel sounds because the vowels are among the first lessons to be introduced naturally at school while learning the mother-tongue. Students were astonished because it was the first time they had heard about the existence of “so many vowels” (Student A and B). I tried to focus more on stimulating the auditory channel in order to fix in mind this important difference which starts to become more complicated while analysing vowels and consonants combinations. At first, Student A thought it would not be a difficult task. However, before he could recognize short and long vowels combined in an exercise he needed a lot of practice. I noted that due to his poor short-term memory I needed to propose him the same exercise for many lessons, otherwise he would forget the rule.

⁵⁹ This is the first answer both students gave me when I asked them if they had ever noticed a difference between writing and pronouncing an English word.

⁶⁰ Generally students associate the idea of being at school with negative experiences. As a consequence, in order to change their attitude it is important to focus on their thoughts and feelings, thus directing them towards a new way of thinking.

In the case of Student B I noted huge difficulties in perceiving the difference between long *e* /i/ and long *i* /ai/ but also between short *u* as in /ʌm'brelə/ and long *u* /ju:/. As a consequence, this kind of exercise took a lot longer, and in each lesson I always tried to propose a few words in which the student had to recognize vowels.

As a result, after a bit of practice both students were able to distinguish the sounds when I presented a new word to them. Moreover, in order to fix the vowel sounds I suggested to them that they should watch different videos in which the songs demonstrated an auditory and a visual aspect simultaneously.

As stated previously, dyslexic students have some difficulties in reading words which end with two or more consonants, because Italian words generally terminate with a vowel. As a consequence, the exercises regarding consonants blending proved to be extremely useful, and the reading activity done after two months of exercises showed a major improvement in students' reading skill. They were able to read words as "first", "world" and "sign" without adding a vowel at the end or between the consonants.

As far as the consonant sounds are concerned, each student created his personal sound correspondence flashcards with consonant and vowel digraphs, and a keyword for each of them. This device helped them to remember the sounds that digraphs make and I introduced only a few flashcards at a time, in order to respect the student's adaptability. It is important to explain new phonemes, but also to repeat those lessons studied previously (Kormos, Smith: 2012: 132). Students need a clear and precise description of how to pronounce sounds, but also of the sound-letter correspondences and spelling rules (2012: 130). For this reason, I decided to teach similar sounds in separate lessons and dedicate time to exercising both pronunciation and writing. The main difficulty that students had to face was recognizing the different sounds of a single phoneme. For instance, Student A had trouble with the /ch/ sound because he initially read the phoneme as /k/. After having noticed that the grapheme /ch/ could have three different sounds, that is, /ch/ as in "chair", /k/ as in "chaos" and /sh/ as in "machine", once I proposed him a reading activity containing different words with the "ch" grapheme, he was able to distinguish easily between the terms containing the first two sounds, although he could recognize almost spontaneously the pronunciation of "tch" and "nch".

Other problems concerned the distinction between /ð/ and /θ/ that correspond to the grapheme "th". Generally the learner mixed the two sounds or pronounced them as /d/

or /t/. Thus “then” (/ðen/) could become /den/ or /ten/ whereas “there” (/ðeə/) could become /der/or /ter/.

On the other hand, Student B had problems in recognizing the phonemes corresponding to those letters which do not belong to the Italian alphabet; for example “j”, “k”, “x”, “y” and “w”. As a consequence, he incorrectly pronounced and wrote the words “jacket” which became “iachet” /'iaket/, “foggy” was written as “foggi” /'foggi/ or “voggi” /'voggi/ and “twenty” as “tuenti” /'tuenti/. However, after having dedicated time during each lesson to mnemonic exercises in order to fix in mind both sounds and corresponding letters, he was able to overcome the difficulties. Even though some inversions or omissions were still a problem, he was often able to correct the mistakes by himself and he adopted the strategy of writing a word, checking the pronunciation using the dictionary or an online resource, and finally writing the term many times in order to fix the graphemes and the corresponding pronunciation in his mind.

Another device useful for both students was the use of voice recording in order to hear the correct pronunciation of words and test themselves at home.

In some cases students asked me to record the lesson in order to listen to the rules regarding sound-letter correspondences, vowels and consonants, digraphs and spelling at home. I appreciated this request because it revealed a deep interest from the students in becoming independent learners.

According to Kormos and Smith (2012: 127) a multi-sensory structured learning (MSL)⁶¹ approach initiates different sensory channels which facilitate the process of encoding in memory. As stated in the previous chapters, although dyslexic students have a poorer phonological short-term memory than their peers, if different phonemes are introduced in small units and practiced constantly in distinct lessons, they can fix them in mind and recognize the sound-letter correspondences.

As far as the vowel combinations are concerned, both students had trouble with distinguishing vowel pairs (long + silent vowel), vowel digraphs (2 letters= 1 sound) and diphthongs (one vowel sound formed by the combination of two vowels sound).

⁶¹ This approach is based on the direct teaching in sound-letter correspondences, and triggers various sensory modalities. See Kormos and Smith (2010, chapter 7) and Nijakowska (2010: 122-127).

The reason is confirmed by the fact that in Italian you pronounce each vowel you write, whereas in English this happens rarely. I started proposing exercises with transparent words as “dog”, “fit” and “put”, in which one reads the vowels present inside the terms. Then I proceeded with missing vowels activities, in which students were supposed to create as many words as possible given the consonants of a word, for instance “h_t” could become “hot”, “hat”, “hit”, “hut”. In this way, students understood the importance of writing a word correctly. If written incorrectly they could see that the word might imply something completely different from what they meant.

Then, I started to propose activities in which the students had to distinguish between words containing digraphs and terms without them. For instance “boat” and “dog”. I noted that at first both students did not find difficulties in differentiating the words, simply because unlike the other words, digraphs have two vowels. Once I asked them to read the words they sometimes missed the correct pronunciation because they did not remember the correct articulation of long vowels. For instance, Student A often mistook an *a* /ei/ for *e* /i/, whereas Student B needed more time to automatizing the rule, thus sometimes he articulated “rain” /rein/ as /rain/. However, after constant exercise he was able to pronounce correctly more than half of the words proposed⁶².

The most difficult exercises were those in which students had to recognize the different vowels combinations. I have noted that if they trained extensively in the same type of exercise, for instance the recognition of words containing “ai”/ “ay” and “ie” sounds, they were able to distinguish and pronounce the words correctly. On the other hand, they had huge difficulties in distinguishing similar sounds. Moreover, I would have needed a longer time to reinforce the lessons in order that students could internalise the letter-sound correspondences and exceptions to the rules.

In order to stimulate orthographic awareness further, I started to apply some activities which focused on gap-filling with missing letters. Students were asked to complete the words with consonants or vowels combinations. The students noted that these activities were difficult at the beginning and required a lot of attention. From my personal point of view, both students had difficulties with this type of exercise due to their poor phonological awareness and observational skill. They were not able to recognize the

⁶² In these exercises I also took the cue from a useful teaching resource by Robin Wolfe (2004).

distinct parts which constituted words because they could identify them as a whole unit and not as a union of different graphemes which have a corresponding sound.

Student A observed that learning new words was really difficult and tiring because if he was able to memorize the orthographic form of the words, he did not know how to pronounce them and couldn't connect with the meaning in Italian. As a consequence, the vocabulary tests were always a disaster.

Student B had the same experience because his English teacher gave unexpected vocabulary tests, and as a consequence he always received poor marks because he did not have the memory to learn new words.

Surprisingly, I noted in my logbook that the activities I proposed to my students helped them to stimulate their skills in memorizing words, because at first they had to spend more time in learning words as a unique system, whereas now they are able to focus only on those parts of the words which do not have a transparent correspondence between sound and letter.

In the matter of syllable division and spelling, although I noted a clear progress in both students, they still had major problems in recognizing specific sounds. They were not able to analyze and remember all phonemes, but they recognized a possible similarity with Italian. A word such as "behaviour" becomes a difficult task for dyslexic students because they must make a detailed analysis of the word and distinguish the sounds "be"- "hav"- "iour". For example, Student A had problems in writing correctly words that I spelled, due to his slowness in visualizing letters and drawing them. However, if I gave him enough time to complete the task, he was able to recognize his mistakes. As far as syllable division was concerned, he was able to separate syllables which contained prefixes and suffixes, although he sometimes had trouble in identifying and isolating particular vowels sounds.

In the case of Student B on the one hand he was able to write easily the words I spelled, as stated in the previous chapter, but sometimes he made errors in distinguishing f-v, m-n, a-e, p-b, but these mistakes did not weigh on the overall result. On the other hand, in the syllable division Student B had similar problems to Student A, because he was not able to distinguish all sounds. Thus he tended to divide the words

according to the presence of syllables and whether the term was a compound word or not.

I noted an evident progress in analysing the words, after having proposed them exercises which required them to delete compound words and to recognize suffixes and prefixes. For example, both students were able to identify the *-ing* form of the gerund, the *-ed* of the past simple and past participle, the prefixes *ex-*, *mis-*, *un-*, *in-* and the suffixes *-able*, *-est*, *-ful*, *-er*, *-ness*, *-ible*.

In the matter of finding rhyming words, both students had difficulties in completing the exercise, due to their poor short-term memory. As a consequence, I supported them with memory games in order establish possible rhyming words. I could observe that if they repeated the exercise more than two times, and read the words every time they turned the card, they were able to connect the sound with the corresponding transcription. However, the type of memory game played with the phonetic transcription of each word at first seemed to be very hard for students, but when I suggested them to search for similar sounds, they were able to find the rhyming words. Once they discovered the correct terms I asked them to read the transcription and then to write the corresponding orthographic form. This proved to be a very difficult task, nevertheless it should be practiced more often, in order to fix both sounds, phonological transcriptions and orthographic forms.

The most stressful exercises were those in which students were asked to activate different channels. For example, they had to listen to the words I pronounced, write them, correct them in case of missing letters and identify the right phonemes according to the phonological transcription which they had to write near the word. I gave the students the possibility to consult the dictionary or the online resources, according to their preference. Generally students preferred to use technological tools because they were less stressful and faster than the traditional materials.

Both students appreciated the possibility to make use of their voice recorder, in order to listen at home to what we did during the lessons. While, I cannot prove that students made real use of their recording, I appreciated the fact that they asked me to apply a possible strategy.

Student B noted that the exercises with vowel combinations were difficult at the beginning and required particularly attention. He said:

When I need to understand the vowel sounds my head is a total mess, because sometimes I forget the long vowels, so I am not able to choose the right sound. Some sounds seem very similar and unpredictable to me, and I can't decide.

In my opinion, the student's problems with these activities may be explained with reference to his difficulties with Italian and as a consequence with his trouble in recognizing long and short vowels. He needed more time to internalise a rule, and as a consequence I had to give him activities depending on his attention span and emotional state. Also, his uncertainties were stronger at the beginning, while in the later lessons he declared that he felt more self-confident because he was able to complete his homework alone, by means of his technological device.

According to student A, the most difficult exercises were those in which he had to recognize similar sounds in words, to write the phonetic transcription and finally to read the word. He said:

When I have to copy the phonetic transcription of some words from the dictionary I need a lot of time to recognize the sounds and to remember them. It seems to be another language, even if it is useful.

In this case Student A had still not acquired completely all the phonetic sounds, so further exercises were done in order to fix in his mind each single phoneme and then practicing more on the orthographic-phonological transcription of entire words and sentences.

All methods applied to stimulate both auditory and visual channels also proved to be useful. Among these I mention the use of videos, games and songs which proved to be extremely effective because of introducing an enjoyable device, but also in giving the students some breaks. Unlike my Italian explanations, these technological tools were entirely in English, thus students had the possibility to hear an English mother-tongue speech and they could sharpen their ear. Sometimes they thought songs were childish, however their attitude changed quickly when they found that they were effective for remembering long and short vowels or other phonological aspects.

Another useful method was tracing words in the air to visualize the orthographic signs, which turned to be a very positive exercise, because dyslexic students have difficulties in predicting the letters which compose words. Surprisingly, this device together with reiterative writing exercises, proved to be effective also for memorizing words. Even when my research project did not concentrate on word acquisition, I nevertheless supported both students in all their scholastic subjects and I noticed that when they had vocabulary tests they used the afore mentioned method to learn words. In addition, they wrote on my iPad the orthographic forms of each term they had to memorize, so if they missed certain words the automatic editor suggested to my students the presence of a mistake and they had to activate a self-reflection process in order to find and correct the error.

According to a case study analysed by Ágnes Sarkadi (2008:110-127) vocabulary acquisition is one of the most challenging fields for dyslexic students. However, the direct teaching of grapheme-phoneme relationships is a fundamental part in lexicon acquisition by means of multisensory teaching. As a consequence, it can be stated that dyslexic students benefit from the orthographic-phonological practice, besides which, this strategy could represent the basis on which to build an effective didactic teaching.

As far as memory games are concerned, they offered me another way to stimulate the students observational skills. Even though this type of exercise could be considered an easy task to complete, on the contrary it proved to be difficult for both students. They had to find rhyming words and in some cases the phonological transcription of the terms. These activities required a deep awareness of phonemes and corresponding orthographic transcription. Furthermore, I had the possibility to identify the weak points of the students, and as a consequence to dedicate time for extra exercises in order to fix in mind those aspects of the previous lessons which were not entirely assimilated.

Both students found the use of different colours to distinguish short and long vowels, but also consonants and vowels combinations, prefix and suffixes very helpful. As I noted in my logbook, they started to use this method also in their school notebooks. We decided to write consonants in black, vowels in red, and we highlighted vowels and consonants combinations. For instance, consonant clusters were framed in blue, vowel digraphs were highlighted in purple and consonants digraphs in yellow. Prefixes and

suffixes were highlighted similarly, and the different parts which constitute a compound word were highlighted in a specific way.

Change
August
Popcorn
Disagree
Kindness

Once I presented to the students the activities they were to do before starting the study they showed a totally different approach. First of all, they were more self-confident. Secondly, their rising orthographic-phonological awareness helped them to create a solid base to be built upon in the future, in order to recognize words and to implement their use.

It is very important to note about that the above-mentioned activities during the extent of this research project was only enough for proposing to dyslexic students this new method. I believe further studies should be conducted in order to apply this useful strategy to a larger number of students and to a classroom context. For this reason, my study has been extending the opportunity of using this method to groups of students who are taught by excellent language instructors who are experienced in teaching dyslexic students and pupils with other special learning needs. Up to now, this teaching method has been producing positive results. Assuming that all pressures are removed from children⁶³, poor language learners are not isolated, but can cooperate with their peers, therefore aiming for inclusion in an integrated education. Moreover, an effective teamwork gives good language learners the possibility to improve and at the same time to stimulate those peers with learning difficulties.

⁶³ See Doyle (2002: 192-194), Nijakowska (2013: 49).

CONCLUSION

It can be stated that the phonological-orthographic strategy in teaching English as a foreign language to dyslexic students, represent the way forward which should be included in the current scholastic system (Nijakowska, 2010: 115-116). Pupils should be supported in all aspects of language learning, from speaking and listening, to writing, grammar, syntax and comprehension. However, lack of phonemic awareness represents the main cause of children's difficulties. As a consequence, this deficit results in reading disability (Doyle, 2002: Figure 14.1, 219) and dyslexic children see words as opaque and impenetrable units that become an insuperable obstacle to overcome.

The essential parts of language learning influence all other skills, but especially they influence the students in developing a successful school career. An example to sustain this point of view is given by the score students achieved in finding rhyming words. After a period of practice students were able to isolate a word, analyse it and understand immediately that there could be a huge number of terms in rhyme with "working". Given the presence of the suffix "ing", even though they needed more time to explore the other words, they achieved a higher score than they did before stimulating their phonological awareness with the exercises proposed in chapter 4.

It is widely approved by researchers that native and foreign language skills are interconnected (Nijakowska, 2010: 133, Schneider, Crombie 2003: 4-5), for this reason a student with problems in his/her mother-tongue, will have trouble with learning English as a foreign language. This condition could worsen because students with learning disorders are hardly recognized when they are in primary school. So, once they start to attend the lower secondary school all the problems return and it is more difficult to handle them.

As a consequence, it could be stated that the direct instruction in phonology and the introduction of a teaching strategy that gives importance to phonological awareness and to letter-sound correspondences in English, should be introduced in the Primary School naturally, as in the way students learn their native language (2010: 129). As a result, an extensive curriculum supported by the use of Italian to clarify the rules and to make comparison between the native and foreign language is highly recommended.

In my opinion, this could represent an important step for students with learning difficulties, and in particular dyslexic learners, who could benefit from instruction in two languages. According to Nijakowska (2010: 117) students trained by means of phonological and orthographic strategies, can consequently improve their reading and word decoding skills. Moreover, developing an ability to read in a foreign language will encourage a reciprocal influence on the mother-tongue, thus stimulating improvement of the corresponding skill (2010: 68). However, this could happen only if an extensive practice has been made in order to produce good language learners. As a consequence, it seems fundamental to encourage dyslexic students with the appropriate support both at school and by means of one-to-one tuition.

The two case studies I offer are examples proposing useful learning strategies that should be examined further in order to be applied in a scholastic context. The development of phonological awareness and the practice of sound-letter correspondences by means of a multisensory approach could be useful for English teachers in mainstream classrooms that are composed of students with different learning needs. In some cases many poor language learners could have had a negative language learning experience, even though they have not been diagnosed with particular learning difficulties. As a consequence, stimulating phonological awareness could be useful for them and motivate them to try a new method which can be integrated with the traditional scholastic teaching.

In particular, phonological training and sound-letter mappings represent a useful device with which to model a metacognitive approach useful for dyslexic students who generally struggle with identifying language patterns and hesitate once they have to make a choice. In this way, teachers can sustain students' self-reflection (Schneider, Crombie: 2003: 17, 23-24; Nijakowska, 2010: 150), thus guiding them to investigate the language in order to find problem solving strategies.

Another important aspect to take into account is that students with learning disabilities tend to have higher levels of overall anxiety and emotional concerns than other pupils, because when they are first diagnosed with dyslexia, they immediately feel that they are different from their school mates. It is therefore important to support them from a psychological perspective in order to create a dynamic context in which all learners can succeed (Kormos, Smith: 2012: 99, 117-119).

As confirmed by my two case studies, students affected by dyslexia lose both self-esteem and trust with people around them. Therefore, the first goal teachers should aim for is building a relationship of trust with students and among students (2012: 116). This was the most difficult part of my project, as that means lowering the students' defenses and indicating to them a path to follow. According to Nijakowska (2010: 122-123) the figure of the language teacher has a key role, and he or she should be a sort of therapist responsible for sustaining students, creating a social context of harmony, and modeling success-oriented and differentiated tasks on the basis of each student's abilities and goals.

Consequently, dyslexic students need support from a psychological perspective in order to feel free from anxieties. Teachers should give them moral comfort to overcome their language-based learning disabilities due to the connection between dyslexia and disorders in the emotional sphere (Nijakowska, 2010: 97). Furthermore, all activities should be developed that can make pupils aware of their strengths and weaknesses, stimulating both their self-confidence and autonomy.

It is of key importance that the majority of dyslexic students have several problems in organising their individual tasks to perform in classroom and at home. According to *Law 170 of 2010*, school teachers should be responsible in recognizing students with learning disorders and support families following an individualized and personal educational plan at competent offices of the national health system. When a case of learning disorder is identified, teachers must attain the student's educational plan. Teaching staff has revealed great difficulties in finding suitable strategies and creating diversified tasks according to the individual needs of each student⁶⁴.

Moreover, as stated by the current Legislation⁶⁵, English teachers should define teaching strategies which will encourage dyslexic students to develop oral skills rather than writing competence. According to the point of view of many teachers of the lower secondary school, although the Law suggests more support for the oral tests, dyslexic

⁶⁴Many teachers of the lower secondary school are a testimony to the afore mentioned point of view. They have confirmed to me that the current legislation does not give support aid to students with learning differences, due to the lack of competent staff and time to adopt new teaching strategies.

⁶⁵Article number 5, section 2-c, retrieved from <http://www.aiditalia.org/it/dislessia-a-scuola/legge-170-2010>

students should achieve minimum goals conforming to the same school curriculum as their peers. Furthermore, they are not excluded from writing tests unless the exoneration from studying a foreign language is a case that a competent office would consider the most appropriate⁶⁶.

Another aspect to consider is that at the end of the third year, dyslexic students must take written exams in English and in the second foreign language they study, which are the same as their classmates. In the English test all students are supposed to write a letter, or to translate some sentences or dialogues or to read a text and answer different comprehension questions.

Indeed, as things stand at the moment, students should be supported constantly in order to develop good abilities in all language competence skills, not only in speech. Dyslexic students generally have trouble in benefiting from the learning strategies used in the scholastic context.

As a consequence, parents are asked to find suitable tutors who can support their students in the process of learning outside of the school. The role I have been trying to play in these last ten years is that of an Education Helper, a guide for students with learning difficulties and mainly dyslexic students. I have conducted this study in order to find the best strategies and tools to accomplish the aim of forming independent learners.

The first step is to give individual support in order to study the learning problems of each student as a unique case. After that, it is essential to plan a didactic program which has as its goal the inclusion of all students in groups, where all learners have the possibility to share their personal experience, thus breaking down prejudices and barriers (2010: 118). Moreover, the environmental considerations that create a context of peace and self-awareness are not useful only for dyslexic students or those with learning difficulties, but for everyone. All efforts pupils make to provide themselves with a good basis for the future will take advantage of a classroom context of cooperation and collaboration.

⁶⁶ However, exonerating a student from learning a foreign language is tantamount to depriving dyslexic students from future working possibilities.

My study started from an accurate analysis of the English textbook in use at school. I had the possibility to examine the teacher's guide provided with the student's texts. As far as the student's textbook was concerned, I noticed first of all that it was based on a communicative approach and was divided in two parts. In the first one, each unit starts with a dialogue which contains particular grammar structures and vocabulary, then, there are activities which are made up of grammar exercises, vocabulary and comprehension. In this way students are encouraged to focus on grammar aspects and to follow an intuitive approach. Some grammar tips find space between the previous activities and a part dedicated to language functions in which students must complete conversations and work in pairs in order to fix specific structures useful to communicate in a precise context, for instance at the airport or at the railway station. Finally, the units of the textbook dedicate a section to reading, listening, speaking and writing activities.

The second part of the textbook presents the grammar rules of each unit, a word list and a section of dialogue work, vocabulary, grammar exercises, language function, activities to test exam skills, reading, writing and oral production. There are no proposals other than those I have put forth in my research project.

The English teachers use the same book as the students but also have a simplified grammar for dyslexics, which they sometimes use to prepare tests so as to give dyslexic students a tool with which to understand better. There is also a specific volume which contains texts for dyslexic students, however the teachers that I interviewed, said that those texts are too easy also for dyslexic students. In particular a teacher added that:

If I give a dyslexic student one of the texts available in the simplified grammar, I know the student will achieve a good mark. However, it does not correspond to the real skill of the student and in doing so he will not be able to face the English test at the end of the lower secondary school. Those types of tests serve only to have a clear conscience, but the students do not progress in English.

I agree with the teacher's point of view, because I used the texts with my students and they themselves told me that "they are child's play compared to what we do in class" (Student A) and "I would get 10/10 in those tests" (Student B).

I could also examine the teacher's textbook, but it does not contain supplementary exercises or annotations regarding dyslexic students or learner with special needs. The

only tools which students can use are the online exercises which contain some simplified reading comprehension and the corresponding MP3 audio. The Italian Dyslexia Association however, gives the possibility of providing dyslexic students with the audio books they are using at school. But, not all publishing houses have taken part in this convention. As stated in the previous chapter, dyslexic students also have the possibility to adopt a special program called *Alfa Reader* created by Erickson. This software can read the online textbook of the students, thus supporting them in studying autonomously at home.

In my opinion, although all these devices are useful in helping dyslexic students along their scholastic path, nevertheless they do not propose a strategy for learning a foreign language. They are compensatory tools but they could really assist the student only if they are supported by an effective learning approach.

Another key point to underline is that dyslexic students cannot progress using methodologies that urge them to discover grammar rules implicitly. Given that these learners have trouble with phonological-orthographic processes, the extensive repetition of sentences, phrases, language function, dialogue, and grammar exercises cannot help them to acquire those automatic skills which their peers could naturally develop by mere exposure to a foreign language (Schneider, Crombie, 2003: 6).

As a consequence, a multi-sensory approach represents the best way to fuse the traditional teaching method with activities useful in stimulating the grapheme-phoneme awareness as to encode and decode English as a foreign language.

A recent textbook which has been created to teach mixed-ability classes is *Today!* (Brian et al, 2015). The publishing house *Pearson Longman* has been supported in this project by *Dyslexia for Teachers of English as a Foreign Language (DysTEFL)*⁶⁷. The textbook is an English language course which dedicates particular attention to dyslexic students and contains traditional exercises mixed with activities which aim to stimulate phonological awareness. Moreover, the teacher's textbook is different from the students resource because it contains particular suggestions to help language teachers to manage a classroom and to support pupils with learning difficulties. Moreover, it also includes

⁶⁷ The training Institute won a prize from the British Council for Excellence in training teachers dealing with dyslexic students.

It is possible to visit the website at <http://dystefl.eu/index.php?id=5>

an eText disc with dyslexia workshops, adapted tests for dyslexics and visual-auditory material to stimulate sound-letter correspondences.

As a consequence, it can be stated that an effective strategy to teach English as a foreign language to students affected by dyslexia should be based on a didactic which aims to:

- Include dyslexics with different needs in a classroom context of cooperation and opportunities.
- Use a multi-sensory approach to support students by means of different methods.
- Stimulate metacognitive skills.
- Model lessons which could stimulate all language abilities, in particular the phonological awareness and the sound-letter correspondences.
- Support teachers who must manage a classroom composed of students with mixed abilities⁶⁸.
- Offer teachers the possibility to instruct by means of online lessons.

In the matter of teacher's training I believe that online classes could be another key point to develop, in order to give English teachers the possibility to experiment and share the possibility of new strategies, that may advantage students with leaning differences⁶⁹.

All things considered, the activities I have proposed in my paper are intended to be an opportunity to prove that if dyslexic students have trouble with their Italian mother tongue, studying a foreign language such as English will be a longer process. It requires specific activities to remove the obstacles in the process of acquisition and to support students in reinforcing those skills which are inadequate due to dyslexia: phonological-orthographic competence, poor short-term and working memory. As a consequence, reading skills and vocabulary acquisition can improve and therefore reading

⁶⁸ Daloiso (2012a) has written a useful guide to teach English to dyslexic students.

⁶⁹ The Lancaster University and a huge number of other institutions propose free online courses, which present a useful way to expand our knowledge. Some courses can be seen at <https://www.futurelearn.com/>.

comprehension, grammar, writing, spelling, speaking and listening abilities can consequently progress.

As soon as students become aware of both their strengths and weaknesses and become self-confident, they will be able to express their skills also in a group. As a result of that, all students with learning disabilities will be able to face their future with determination, autonomy and a belief that everything is possible.

In the same way, a direct multisensory curriculum of the activities proposed in the case studies could be useful to both students with language difficulties and also to good learners. Once I gave the same tasks to students with good marks in English, and they had difficulties in finding rhyming words and pronouncing them correctly. Like dyslexic students they read a word as a whole unit, but due to their excellent memory they knew a huge number of terms. As a consequence, their lexicon knowledge helped them to progress in English without being able to recognize exactly the grapheme-phonemes correspondences.

To conclude, it can be stated that this study has been an attempt to inspire further experimentation with the use of the direct multisensory approach in teaching English as a foreign language to dyslexic students. Moreover, activities based on stimulating phonological-orthographic awareness and letter-sound correspondences could represent a useful support to be integrated with the traditional scholastic teaching.

It is of vital importance to define the best strategies by means of a multisensory approach in order to support dyslexic students in achieving good levels of English and in all language skills. However, considering that the main problems lay in encoding and decoding a foreign language, in order to realize a focused plan, reading skills should be the first to be improved. Consequently, all other competence can benefit and be reinforced. Students who lack phonological and orthographic awareness, and are not able to recognize letter-sound correspondences, cannot aim to become good language learners because they are deprived from the key access to English. Thus, the experience of learning would become the impossible challenge of building a house without a solid foundation.

It can be added that, “Everyone is a genius. But if you judge a fish on its ability to climb a tree, it will live its whole life believing that it is stupid” (Kelly, 2004: 82).

APPENDIX

The following forms have been created in order to collect information about the emotional state of my students, their main anxieties in learning English as a foreign language, the scholastic approach and strategies adopted in the scholastic context, the relationship with peers and pros and cons of the activities which I proposed in chapter 4.

The first form collects the student's description given by parents and teachers (in particular the English teacher).

Then, there is a questionnaire that each student has to complete in order to understand his or her attitude towards English (Appendix B).

All information collected through the previous forms are useful to complete the general description of the student (Appendix C).

Finally, the last two forms could be useful to collect information during each one-to-one lesson and the student's feelings compared with those of the Education Helper to understand the pros and cons of each lesson.

APPENDIX A) PARENTS AND TEACHERS FORM

Student _____

SCHOLASTIC REALITY	<u>School Teachers</u>	<u>Parents</u>	<u>Education Helper observation</u>
Scholastic problems: subjects and main difficulties			
Aims to achieve in relation to each subject			
Classroom management strategies in dealing with pupils with dyslexia: seating positioning, blackboard writing, markers, peer support and group support			
Differentiated tests/homework/activities			

System of assessment			
Multi-sensory teaching strategies			
Role of the student in class			
Interaction with peers in social setting			
Interaction with teachers			
Extra Curricular activities (how many times a week, relationship with peers, pros and cons of the activity)			
STUDENT & FAMILY	<u>Parents</u>	<u>Educational Helper observation</u>	
Behavioural features at home			
Relationship between parents and their dyslexic child			
Presence of brothers and sisters (older or younger) and relationship with them			

Presence of parents at home while studying or doing homework (how many hours a day, methods used...)			
Further annotations			
SCHOLASTIC SKILLS	<u>School Teachers</u>	<u>Parents</u>	<u>Education Helper observation</u>
Written tests efficiency			
Oral tests efficiency			
Reading and comprehension skills			
Writing skills			
Calculating Skills			
Autonomy			
Attention Span Distractibility/Concentration			
Use of compensatory instruments			
Self-confidence			

Does he/she make questions when something is not clear?/Is he/she self-aware of his/her weaknesses?			
Organization of time (tasks to do at home/in class, extra-time to do some exercises...)			
Weaknesses and strong points observed			
Teachers Promotion of self-esteem			
Further annotations			

APPENDIX B) STUDENT'S ATTITUDE TOWARDS ENGLISH

The following questions are in English, however the student's form was in Italian and it was created according to a friendly layout useful to support dyslexic students in reading. The learner is supposed to sign one of the smile to indicate his or her answer.

1.GENERAL QUESTIONS

Do you like studying English?



Are you good at reading in English?



Are you good at writing in English?



Are you good at listening in English?



Are you good at speaking in English?



Do you get on well with your English teacher?



Do you understand your English lessons?



Do you enjoy during your English lessons?



Do you know what are the English phonemes?



Have you ever exercised your pronunciation at school?



2.READING/COMPREHENSION IN ENGLISH

Are you afraid when you have to read a text in English in front of your classmates?



Do you need to read a text many times to understand the meaning?



Do you understand better if someone reads for you?



Do you have problems with recognising some words?



Does reading in English cause you problems such as headache or anxieties?



Do you need a rest after a long reading?



Do you get lost in a long reading?



Do you read in English for personal pleasure?



3. WRITING AND SPELLING IN ENGLISH

Do you have difficulties in writing some words?



Do you have difficulties in formulating sentences in English?



Do you have problems in recognizing and making sense of certain words?



Do you have problems with memorizing the spelling of some words?



Do you have difficulties in finding possible mistakes while re-reading your writings?



Do you have difficulties in finding, planning, organizing and writing down your ideas?



Do you have trouble with writing under dictation?



4.SPEAKING/LISTENING

Can you speak in English in front of your peers without being anxious?



Do you have some problems in expressing your ideas?



Do you have trouble with the pronunciation of long words?



Do you have difficulties with understanding some people?



Do you get confused if your English teacher talks too fast?



Does the background influence your comprehension?



Do you prefer listening to the others instead of participating in a discussion?



4. ENGLISH GRAMMAR

Do you have difficulties in studying English grammar?



Do you have difficulties in making grammar exercises?



Do you have trouble with understanding a task in a grammar exercise?



Do you need clear examples to understand a grammar rule?



Do you find similarities between your mother tongue and English?



If you want, add your ideas, feelings, fears about learning English as a foreign language.

APPENDIX C) GENERAL DESCRIPTION OF THE STUDENT

The following general description of the student must be compiled at the beginning of the research.

Student: _____ Age: _____ Class: _____

DESCRIPTION OF THE STUDENT TO BE COMPLETED AFTER THE FIRST ONE-TO ONE LESSON	
Diagnosed dyslexia	
Psychological Approach	
Main anxieties	
Physical problems	
Motivation in studying English	

Main Skills and difficulties	
Interests	
Days of English one-to one lessons	
Attention Span	
Distractibility	
Concentration/Tiredness	
Teaching Strategies adopted by his/her English teacher	
Further annotations	

APPENDIX D) ONE-TO-ONE TEACHING QUESTIONNAIRE AND FORM

Student:

Date:.....

Subject:.....

Time:.....

The following questions are in English, but they were asked the student in Italian.

How do you feel today?/Why?

(Complete the first part of the form APPENDIX E *How do You Feel today?*)

How was your school day?

Have you learnt something new?

How was the interaction with your classmates?

Did something meaningful happen to you?

Did you feel encouraged by your classmates/by your teachers?

Did you lose some parts of the lessons?

Did you take note in class or did something or someone disturb you?

What did you learn during your English lessons at school?

Did you find any difficulties? Why?

Did you get lost during the lessons?

Did you remember what we did during the last lesson?

Have you got any doubts?

Further annotations about the mood of the student and the impressions of the Education Helper.

MOOD OF THE STUDENT	EDUCATION HELPER IMPRESSIONS
LEARNING STRATEGIES USED DURING THE LESSONS	EDUCATION HELPER OBSERVATION

APPENDIX E) HOW DO YOU FEEL TODAY FORM

Name: Surname:..... Today I feel.....

☺ :-I ☹

	Student.....
Today I feel....	Week.....
	Monday
	Tuesday
	Wednesday
	Thursday
	Friday
	Saturday
How was the lesson?	
Today I would like to say that English.....	

	Education Helper
Today I feel....	Week.....
	Monday
	Tuesday
	Wednesday
	Thursday
	Friday
	Saturday
How was the lesson?	
Today I would like to say that English.....	

References

- ABBS, B., FREEBAIRN, I., STILES, E., THOMPSON, T., TODD, D., ZERVAS, S. 2015. *Today!* UK: Pearson ELT. Retrieved from <http://product.pearsonelt.com/today/>
- BONISTALLI, E., 1973. *Prevenzione e trattamento della dislessia*. Firenze: La Nuova Italia.
- BOWEN, P., DELANEY, D. 2014. *High Five 2*. Oxford: Oxford University Press.
- BOWEN, P., DELANEY, D. 2012. *High Spirits 2*. Oxford: Oxford University Press.
- BOWEN, P., DELANEY, D. 2012. *High Spirits Digital 2*. Oxford: Oxford University Press. [Online] Retrieved from https://elt.oup.com/elt/students/highspiritsitaly/highspiritsdigital/dislessia/level2/Unit_4_Culture_club_Reading_p47.pdf?cc=it&selLanguage=it
- BOWEN, P., DELANEY, D. 2015. *High Five Grammar for Students with Dyslexia*. Oxford: Oxford University Press.
- BOWEN, P., DELANEY, D. 2015. *High Five Tests for Students with Dyslexia 1-3*. Oxford: Oxford University Press.
- BRITISH DYSLEXIA ASSOCIATION. 2009. *Dyslexia Style Guide*. [Online] Retrieved from http://www.bdadyslexia.org.uk/common/ckeditor/filemanager/userfiles/About_Us/policies/Dyslexia_Style_Guide.pdf
- COLTHEART, M. 2005. "Modelling Reading: The Dual-Route Approach". In M. J. Snowling and C. Hulme (Eds). *The Science of Reading: A handbook*. Oxford: Blackwell. [Online] Retrieved from <http://www.pitt.edu/~perfetti/PDF/Coltheart%2005.pdf>
- DALOISO, M. 2012(a). *La dislessia nella classe di Inglese. Una guida metodologica*. UK: Oxford University Press.
- DALOISO, M. 2012(b). *Lingue straniere e dislessia evolutiva. Teoria e metodologia per una glottodidattica accessibile*. Torino: UTET.
- DALOISO, M. 2015. *L'educazione linguistica dell'allievo con bisogni specifici*. Torino: UTET.

- DALOISIO, M. 2014. *Lingue straniere e disturbi specifici dell'apprendimento*. Torino: Loescher Editore.
- DENES, G., PIZZAMIGLIO, 1996. *L. Manuale di neuropsicologia*. Bologna: Zanichelli.
- DOYLE, J. 2002. *Dyslexia: An Introductory Guide*. London: Whurr Publishers.
- FRITH, U. 1985. *Beneath the Surface of Developmental Dyslexia*. London: Elbaum.
[Online] Retrieved from
http://www.icn.ucl.ac.uk/dev_group/ufrith/documents/Frith,%20Beneath%20the%20surface%20of%20developmental%20dyslexia%20copy.pdf
- HALLAHAN, D. P., LLOYD, J. W., KAUFFMAN, J. M. 2005. *Learning disabilities: Foundations, Characteristics, and Effective Teaching, 3/e*. Boston: Pearson. [Online] Retrieved from <http://www.pearsonhighered.com/samplechapter/0205388671.pdf>.
- JOLIFFE, W., WAUGH, D. AND CARSS, A. 2012. *Teaching Systematic Synthetic Phonics in Primary School*. California: SAGE Publications Inc.
- KELLY, M. 2004. *The rhythm of life: Living every day with passion and purpose*. New York: Beacon Publishing.
- KORMOS, J., SMITH, A. M. 2012. *Teaching Languages to Students with Specific Learning Differences*. Bristol: Multilingual Matters.
- KVILEKVAL, P. 2007. *Insegnare l'Inglese ai bambini dislessici*. Firenze: Libri Liberi Srl.
- LADAVAS, E., BERTI, A. 2002. *Neuropsicologia*. Bologna: Il Mulino.
- LE GUIDE ERICKSON. 2013. *Dislessia e altri DSA a scuola. Strategie efficaci per gli insegnanti*. Trento: Edizioni Centro Studi Erickson.
- MARSHALL, J.C., NEWCOMBE, F. 1973. *Patterns of Paralexia: a Psycholinguistic Approach*. Philadelphia: Davis Company.
- NIJAKOWSKA, J. 2010. *Dyslexia in the Foreign Language Classroom*. Bristol: Multilingual Matters.
- NIJAKOWSKA, J., KORMOS, J., HANUSOVA, S., JAROSZEWICZ, B., KÁLMOS, B., SARKADI, Á. I., SMITH, A.M., SZYMANSKA-CZAPLAK, E., VOJTKOVA, N. 2013. *Dyslexia for*

Teachers of English as a Foreign Language. [Online] Retrieved from <http://www.dystefl.eu/>.

ORLASSINO, C. 2014. *A Workbook for Dyslexics*. New York: Creative Dragon Press.

SALTER, R., SMYTHE, I. 1997. *The International Book of Dyslexia*. Great Britain: World Dyslexia Network Foundation.

SARKADI, Á. 2008. "Vocabulary Learning in Dyslexia: The case of a Hungarian Learner". In J. Kormos, H. Kontra (Eds.). *Language Learners with Special Needs. An International Perspective*. Canada: Multilingual Matters.

SCHNEIDER, E., CROMBIE, M. 2003. *Dyslexia and Foreign Language Learning*. New York: David Fulton Publishers.

STELLA, G. 2004. "Dyslexia in Italy". In Smythe, I., Everatt, J., Salter (Eds). *The International Book of Dyslexia: A Guide to Practice and Resources*. John Wiley & Sons, LTD.

WARRINGTON, E. K., SHALLICE, T. 1979. *Semantic Access Dyslexia*. London: Academic Press.

WEINREICH, U. 1968. *Languages in contact*. The Hague-Paris-New York: Mouton.

WOLFE, R. 2004. *Scholastic Success With Vowel Digraphs & Diphthongs*. U.S.A.: Scholastic, Inc. [Online] Retrieved from http://www.scholastic.com/teachers/article/collateral_resources/pdf/80/9780545472180.pdf

Online Articles

DEJERINE, J. 1891. "Sur un cas de cécité verbale avec agraphie, suivi d'autopsie". *Mémoires de la Société Biologie*, 3,197-201.

DRISCOLL A., NAGEL N.G. 2008. "The World of Children, Families, and Educators". *Early Childhood Education: Birth*. NJ: Pearson Allyn Bacon Prentice Hall, 8, 387-389.

EHRI, L. C. 2005. "Learning to read words: Theory, findings and issues". *Scientific Studies of Reading*, 9, 167–188. Retrieved from

https://www.academia.edu/4756276/Learning_to_Read_Words_Theory_Findings_and_Issues.

FRITH, U. 1999. "Paradoxes in the definition of dyslexia". *Dyslexia*, 5 (4), 192-214. Retrieved from [http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)1099-0909\(199912\)5:4%3C192::AID-DYS144%3E3.0.CO;2-N/abstract](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)1099-0909(199912)5:4%3C192::AID-DYS144%3E3.0.CO;2-N/abstract).

GANSCHOW, L., SPARKS, R.L, JAVORSKY, J. 1998. "Foreign Language Learning Difficulties: An Historical Perspective". *Journal of Learning Disabilities*, 31 (3), 248-258. Retrieved from <https://livelongday.files.wordpress.com/2011/08/ganschowetal.pdf>

GEARY, D.C. 2004. "Mathematics and learning disabilities". *Journal of Learning Disabilities*, 37, 4-15. Retrieved from <https://web.missouri.edu/~gearyd/JLD04.pdf>

GESCHWIND, N., GALABURDA, A.M. 1985. "Cerebral lateralization. Biological mechanisms, associations, and pathology: II. A hypothesis and a program for research". *Archives of Neurology*, 42 (6), 428-59. Retrieved from <http://archneur.jamanetwork.com/article.aspx?articleid=584235>.

HINSHELWOOD, J. 1895. "Word blindness and visual memories". *The Lancet*, 147 (3777), 1566-70. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0140673601987641>.

JOFFE, L.S. 1990. 'The mathematical aspects of dyslexia: a recap of general issues and some implications for teaching', *Links*, 15 (2), 7-10.

KRAUS, L. "The Impact of No Child Left Behind on IDEA's Guarantee of Free, Appropriate Public Education for Students with Disabilities: A Critical Review of Recent Case Law". *The Loyola University Chicago Childlaw and Education Institute Forum*, 2009, 1-10. Retrieved from http://www.luc.edu/media/lucedu/law/centers/childlaw/childed/pdfs/2009studentpapers/kraus_impact_no_child.pdf.

XU, M., YANG, J., SIOK, W.T., NAN, L. 2015. "Atypical lateralization of phonological working memory in developmental dyslexia". *Journal of Neurolinguistics*, 33, 67-77. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0911604414000517>

- MORCHIO, B., OTT, M., PESENTI, E. 1989. "The Italian Language: Developmental Reading and Writing Problems". *Behavioural and Social Science Series*, 52, 142-162. Retrieved from https://www.academia.edu/4767974/The_Italian_language_developmental_reading_and_writing_problems
- MORGAN, WP. 1896. "A case of congenital word blindness". *British Medical Journal*, 7 (2), 1378. Retrieved from http://www.bmj.com/content/2/1871/1378?ijkey=54b9ad95314a8ee4c7c95e11cd3b400245f58f77&keytype2=tf_ipsecsha
- ORSOLINI, M., FANARI, R., CERRACCHIO, S., FAMIGLIETTI, L. 2009. "Phonological and lexical reading in Italian children with Dyslexia". *Springer Science Business Media B.V.*, 22 (8), 933-954. Retrieved from <http://www.airipa.it/wp-content/uploads/2013/04/DyslItalian09.pdf>
- ORTON, S.T. 1937. "Reading, Writing and Speech Problems in Children". *The American Journal of Psychiatry*. New York: W.W. Norton & Co. 94 (3), 749-753. Retrieved from <http://ajp.psychiatryonline.org/doi/abs/10.1176/ajp.94.3.749?journalCode=ajp>
- ORTON, ST. 1925. "Word-blindness in school children". *Archives of Neurology and Psychiatry*, 14, 581-615.
- SRIPADA, P., N. 2008. "Mental Lexicon". *Journal of the Indian Academy of Applied Psychology*, 34 (1), 181-186. Retrieved from <http://medind.nic.in/jak/t08/i1/jakt08i1p181.pdf>
- THOMPSON, L. J. 1967. "Word-blindness in school children and other papers on Strophosymbolia (Specific Language Disability-Dyslexia) 1925-1946". *Bulletin of the Orton Society*, 17, 95-98. Retrieved from <http://www.jstor.org/stable/23770017>
- YOUMAN, M., MATHER, N. 2012. "Dyslexia Laws in the USA". *Annals of Dyslexia*, Springer, 63 (2). Retrieved from https://www.academia.edu/3075019/Dyslexia_Laws_in_the_USA

Websites

ACADEMY OF OTON-GILLINGHAM PRACTITIONERS AND EDUCATORS

<http://www.ortonacademy.org/approach.php>

ALPHABETICS APP <http://www.fordyslexia.com/gettheapp/>

ANGLÈS 365 <http://www.angles365.com/>

ASSOCIAZIONE ITALIANA DISLESSIA <http://www.aiditalia.org/>

BRITISH DYSLEXIA ASSOCIATION <http://www.bdadyslexia.org.uk/about>

DYSCALCULIA <http://www.bdadyslexia.org.uk/dyslexic/dyscalculia>

DYSGRAPHIA <http://dysgraphia.org.uk/>

DYSPRAXIA FOUNDATION <http://www.dyspraxiafoundation.org.uk/>

DOLCH SIGHT WORDS <http://dolchsightwords.org/>

EDUBLOX READING AND LEARNING CLINIC <http://www.edublox.com/>

EUROPEAN AGENCY FOR SPECIAL NEEDS AND INCLUSIVE EDUCATION

<https://www.european-agency.org/country-information/italy/national-overview/complete-national-overview>

HANDWRITING SKILLS

http://www.childsupport.in/html/ourservices_handwritingskills.html International

DYSLEXIA ASSOCIATION <http://eida.org/definition-of-dyslexia/>

INTERNATIONAL DYSLEXIA ASSOCIATION (HISTORY OF IDA)

<http://eida.org/history-of-the-ida/>

ICD-10 DSA <http://apps.who.int/classifications/icd10/browse/2016/en>

SUPPLEMENT TO DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS

<http://dsm.psychiatryonline.org/>

<http://psychiatryonline.org/pb-assets/dsm/update/DSM5Update2015.pdf>

FREE RHYMING DICTIONARY <http://www.rhymer.com/>

FUTURE LEARN ONLINE COURSES <https://www.futurelearn.com/your-courses/upcoming>

LEARNING GAMES

<http://www.learninggamesforkids.com/vocabulary-games/syllables/break-them-up-science-syllables.html>

MY ENGLISH TEACHER

<http://www.myenglishteacher.eu/blog/list-of-words-with-silent-letters-in-english/>

NEOK12 <http://www.neok12.com/Phonics.htm>

PSYCHCENTRAL <http://psychcentral.com/disorders/specific-learning-disorder/>

SPELLING RULES http://www.dyslexia.org/spelling_rules.shtml

SYLLABLE COUNTER <http://www.syllablecount.com/>

THE PHONOLOGICAL DISORDER THEORY <http://www.beatingdyslexia.com/phonological-disorder.html>

THIS READING MAMA <http://thisreadingmama.com/>