Teaching Learners with Dyslexia

First Language

(Mother Tongue)

Dyslexia

With the support of
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A series of special education teaching guides

Inclusion in Europe through Knowledge and Technology

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Teaching a First Language to Students with Dyslexia

Contents

Inclusion in Europe through knowledge and technology

Information on the fundamental principles, practices, educational material and teaching aids used to teach various subjects to students with special needs are few and far between. In some cases, material has been prepared for internal use at specialised schools or in other closed environments. In other cases, knowledge has been passed from teacher to teacher as part of workplace training.

No systematic material on pedagogical principles, practices, educational material and teaching aids exist for areas such as teaching first language teaching, foreign language teaching, mathematics and music for the blind.

With this in mind, the goal of this European project is to further develop, implement and disseminate good practices in the area of inclusive education and learning technologies by delivering three primary components: *Teaching Guides*, Guide on g*ood practices Inclusive learning and Teaching* and *SMART E-learning objects*.

Teaching guides

In completing the project, RoboBraille partners have created a series of twelve educational guides covering fundamental principles, practices, educational material and teaching aids covering first language teaching, foreign language teaching, mathematics and music for the blind, partially sighted and dyslexic.

Inclusion Guide on good practices for inclusive learning and teaching

In support of this, the project has collected and collated information on good inclusion practices in five select areas (teacher skills, alternate media, support structures, preparation for inclusion and teaching environments) which are published in a catalogue of good practices.

SMART e-learning

Finally, the project will adapt a comprehensive set of educational materials on the RoboBraille service prepared in the LLL LdV RoboBraille SMART project into a set of learning objects for popular e-learning platforms for web and tablet deployment.

For all materials produced by this project

Because the material covers teaching of students of various age, they are named students, learners, pupils and children. The material also reflects the different culture and level of inclusion practices of the project partners. The guide is not a substitute for formal training of teachers.

Introduction to this guide

Dyslexia is by now a widely known but poorly understood specific learning disability.

It can be difficult to define because the causes underlying its measurable manifestations can be very variable. However, dyslexia is a real problem, which affects the learning of reading and writing of many individuals and whose effects may be exacerbated by an inadequate education. The complexity of the problem is increased by the fact that dyslexia and reading and writing difficulties may vary according to the cultural and linguistic background.

There are several definitions of dyslexia but probably the most frequently used on is the definition introduced by the **International Dyslexia Association** (IDA) in 2002: "*Dyslexia is a specific learning disability (SpLD) that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge."*

Dyslexia is a hidden disability thought to affect around 10% of the population, 4% severely. It is the most common of the SpLDs.

Dyslexia affects reading, spelling and writing and thus all activities which are connected with these skills, and at the very first place the first language literacy acquisition.

When we talk about teaching first language to dyslexic students we mainly mean the formation and development of their primary and functional literacy (ability to read and write properly, to work with written text effectively).

Prerequisites for developing good reading/writing skills

Every child, in order to learn to read, must pass through a series of successive steps deployed in time; at every stage, to acquire a new skill which would facilitate him/her in achieving the ultimate goal associated not only with formal recognition of letters and words, but with consolidation of the ability to understand and interpret the information he/she is reading. Important criteria for the level of success in this process is the extent to which the child uses what he/she has learned and how he/she applies this skill (reading and writing) independently, outside situations of joint activity with adults.

There are certain skills that a child should develop in order to succeed in reading and/or writing.

Perceptions

Visual

Visual perceptions start to develop from birth. But it needs some time to allow the eyes to focus, to practice eye movements, to form binocular vision, perception of perspective (depth) and hand-eye coordination.

When we talk about visual perceptions we do not mean problems with vision, but the skill, which is associated with the perception of an object. It is the ability to recognise a form, no matter what size, colour or material it is in; the ability to distinguish that form from any other form, and the perceived visual information to be remembered (stored in the memory) and retrieved when necessary.

Visual tracking (the ability to follow a moving object with the eyes) is another ability that is very important for the development of learning skills in any aspect.

Auditory

Auditory perception is "the ability to structure the auditory world and select those sounds which are immediately pertinent to adjustment" (Myklebust, 1954). Children with auditory perceptual deficits can hear sounds but are unable to recognize them for meaning (Berry and Eisenson, 1956). Since auditory perception is the ability to recognise and interpret what one hears, it is just as essential for reading acquisition as visual perception is.

When we talk about auditory perceptions four main aspects should be mentioned:

- Auditory discrimination – the ability to hear similarities and differences between sounds.
- Auditory differentiation - is the ability to devote appropriate sound stimuli and react to them, and to ignore unimportant ones.
- Auditory blending (also known as auditory analysis and synthesis) - the ability to synthesise individual sounds that make up a word.

- Auditory sequencing – it is the ability to remember the order of individual sounds in a given stimulus (e.g. word)

Phonological

Phonological perception is the unconscious cognitive processing of language sounds within specific areas of the brain On the other hand, phonological awareness refers to the conscious ability to take into account the unique differences that exist between words in everyday language - the fact that not all sounds are the same. And so, we come to the concept of phonematic awareness, which is more specific and includes the ability to perceive small differences between phonemes that can be moved and replaced, to form different words.

For example: if we have the words “best” and “test”, the phonemic awareness helps us to recognise the sounds in these two words [b] or [t], [e], [s], [t], and identify that the first phoneme is the differentiating sound. Knowing that the letter “t” represents the sound [t] is not enough to evaluate the phonemic awareness as good. It is necessary to understand that [t] is the first sound in the word “test”, and it is the same as the last sound of this word and the last sound in the word “best”. So, one should be able to identify each sound in the word, the place in the word a particular sound is situated, and to compare the sounds and their positions in different words.

Memory

Visual

Visual memory is the ability to remember for immediate recovery characteristics of an object or shape. It reflects the relationship between visual perception and the process of encoding, storage and retrieval of the resulting brain images. Visual memory can be stored for a shorter or longer period of time and can be retrieved when needed, for example, to orientate ourselves in a place we have visited in the past (Berryhill, 2008). We are able to store visual information about objects, places, people, etc. in the form of mental images.

Auditory

Auditory memory (sometimes called echoic memory) is the ability to process the information presented verbally, analyse it and store it for later use. Unlike visual memory in which our eyes can scan the visual stimuli many times, this is not possible for auditory stimuli. Overall, the auditory memories are stored for a little longer time than iconic (visual) memories (Psychology Glossary).

Short-term

Short-term memory is the ability to store information in the brain in an active, ready-to-use state for a certain period of time. It is about visual information (e.g., a person's face) or auditory information (e.g., phone number or sentence that someone said). The information can remain available in this way for a few seconds. This type of memory is the result of a single and very short-term perception of certain information and occurs without conscious effort. In the short-term memory only the main elements of the accepted images or words are stored

Long-term

Long-term memory determines a person's ability to store information for a long period of time. Long-term memories may persist for several days or for many years. Long-term memory does not begin to function immediately after the information is seen or heard, but after some time. One must first complete a process (remember) to start the next (reproduce) as these two processes are not compatible and their mechanisms are completely different.

The capacity of long-term memory is virtually unlimited, as the time for storing information in it. Access to information stored in long-term memory and the ability consciously and unconsciously to remember depends on how well it is organised. The new information is constantly transferred to the long-term memory, but sometimes access to this information is difficult and this affects the ability to reproduce.

Semantic

The Canadian psychologist Endel Tulving distinguishes three types of memory - procedural, episodic and semantic (Tulving, 1985). Procedural memory supports activities such as tying shoes or cycling - activities that we do not have to learn how to do many times – if we have learnt to ride a bicycle we keep this knowledge for the rest of our lives, no matter how many years we have not ridden a bike.

Episodic memory preserves our personal experiences and their sequence in time. Using this type of memory, we can remember our first day in school, or the day we moved to a new house.

Semantic memory is the ability to remember facts out of context. Semantic memory also represents our knowledge of words, symbols and concepts that we use in guided conversation or when learning any subject. It is used to recall the definitions of words and concepts.

Spatial orientation

The human brain is an incredible organ. It can perceive, analyse and process a huge amount of information every day, even when we sleep. Our brain is what makes it possible for us to move around in the environment using our innate sense of direction. This ability is called

spatial orientation. It is of great importance in our every-day life. Spatial orientation helps us to adapt to new environments and to get from one point to another. Without it, we would walk around in endless circles, would get lost, but also – have a lot of other problems we do not even suspect (Maxwell, 2013).

Spatial orientation is one of the key capacities which must be mature if a child is to learn to read and write easily. This ability facilitates the formation of children's school-readiness and the acquisition of reading and writing skills.

Sequencing

Sequencing refers to the person's ability to perceive visually and/or auditory items in a particular order, to remember this sequence and to be able to retrieve it later.

Attention

Attention is the behavioural and cognitive process of selectively concentrating on a discrete aspect of information, while ignoring other perceivable information. Attention has also been referred to as the allocation of limited processing resources (Anderson, 2004).

There are four main aspects of attention: concentration, distribution, switching and attention volume. Sometimes one of these aspects is well developed, while at the same time different levels of deficits are observed in the others.

Concentration

Concentration is the ability to focus on an object and its details, or on a certain task. A person's ability to concentrate depends on his/her commitment, motivation and ability to complete the task. The emotional, physical and psychological condition of the person as well as the environment also play an important role.

Sustainability

Sustainability is the temporal characteristics of attention and concern the duration of the fixed attention on a single object. Stability is related to the duration of conscious attention - the time during which a person can preserve his or her attention to the same object at the initial level. Stability depends on the physical condition, interest and motivation of the individual person – (you can stay focused on something you find interesting for a much longer period of time than if you find the object/task boring or annoying); or it is easier to stay focused on a task in the morning when well rested, than in the afternoon or evening.

Switching

Switching is the ability to move the focus of attention from one object/task to another when necessary. Any shift of attention requires a conscious effort. The level of effort is determined

by a number of conditions: innate mobility of neurological processes of activation and deactivation. The greater a person's level of mobility is, the easier it is for him/her to switch attention.

Difficulties in literacy acquisition caused by dyslexia

In reading

Reading acquisition is a complex task that requires coordination of eye muscles so that they can follow the lines in the text; good spatial orientation to interpret letters and words; and well-developed visual memory to remember the meaning of letters and sight words. The process requires the ability to work with sequences, understanding of sentence structure and grammar; and the ability to categorise and analyse. In addition to all these skills, the brain must be able to integrate visually perceived stimuli (letters and letter combinations) with information stored in memory, and to associate these stimuli with the appropriate sounds. Sounds must then be associated with the specific meanings. In order to achieve better understanding, the reader should remember the meaning of words he reads until he comes to the end of the sentence or paragraph. A problem at any stage of this process leads to difficulties with reading.

Visual differentiation of the letters

- Problems with letter recognition.
- Substitution or disposition of the letters within the words and/or phrases.

Children find it difficult to decode the words, especially when it comes to polysyllabic and rarely used words.

Letter – Sound Correspondence

- Problems with visual recognition of letters, their location; number of elements of the letter and/or how they are combined in the word.

Letter-sound correspondence requires each sound to be identified and associated with a particular letter or combination of letters. This is the point in the process of literacy acquisition, where the phonemic awareness begins to overlap with the orthographic awareness and reading.

Storing in the memory

- Problems with decoding longer words.
- Semantical problems.

When somebody reads, he/she should be able to look at a word, to form a mental image of that word and to recall this image later. People with good visual memory would recognise a word they have already seen, when they meet this word later in the same or even in another text, and they would remember what the word looks like and would be able to spell it (Cusimano, 2001). Those whose visual memory is not sufficiently developed, will have difficulties to recover the sequence of visual stimuli (letters). They often cannot remember the

appearance of a word and have to decode it every time, no matter how many times they have met this word in the text before.

Blending the sounds into words

Sound blending is the ability to form words from individual sounds through their consistent connection. This ability is essential for reading and is a manifestation of phonological awareness. To read a word, one has to know which sound corresponds to each letter or combination of letters, and to be able to connect those sounds together to pronounce the word.

The person may know the individual phonemes and may not have difficulty to spell (for ex. “b-a-l-l”) but simply cannot put them together to form the word (“ball”).

Reading Fluency

Fluency does not mean only to decode all the words in a text accurately, but also to read with proper speed, and with expression. Reading fluency is important because it makes the connection between word recognition (decoding) and comprehension (which is the initial aim of reading). Fluent reading sounds natural, as if one is speaking. Of course, nobody reads fluently from the very beginning. At first, the child should be able to effortlessly decode the words, then he/she needs good instructions, a lot of exercises and enough time to be able to do it relatively fast, and then – he/she should know and respect the punctuation. Young readers, but also those who have not yet developed reading skills at a proper level, read slowly, word by word; with many fault-starts, big pauses between words and often do not respect punctuation. In other words - their oral reading sounds choppy.

Punctuation

Punctuation is an internationally accepted system of signs or symbols that are used to show the reader how a sentence is constructed, how it should be read so its meaning is clear. The punctuation marks don’t depend on the language or the alphabet in use.

Proper punctuation acts as "traffic signs" guiding the reader through the ideas expressed in the text. If a child is not aware of the punctuation, or does not respect the punctuation signs – it directly affects the level of comprehension.

If the child is unaware of punctuation or fails to comply with the punctuation, it directly affects the level of understanding of reading.

Comprehension

Comprehension is the ultimate goal of reading. Reading comprehension does not mean just to recognise (or decode) individual words; it does not mean to be able to understand each individual word being read. According to experts studying the problems of reading comprehension, readers need to build up a mental picture of what they read. This process requires integration across a range of sources of information, from lexical features through to

knowledge concerning events in the world (e.g., Garnham, 2001; Gernsbacher, 1990; Kintsch, 1998).

There are several reasons for difficulties that a reader may have with comprehension:

1. Good reading technique is one of the main prerequisites for a good level of comprehension. One wrong word read, one row missed, inability to stand semantic parts of the sentence can cause a problem with understanding and interpretation of the text.
2. Readability of the text. If the text is not properly selected according to the age and the reading skills of the students, they may not be able to understand its meaning. Multisyllabic or rarely used words, long complicated sentences may cause additional difficulties to young readers. The limited student's vocabulary can make the comprehension even more problematic.
3. Proper knowledge and use of grammar rules, semantics of words and their adequate use. If not in place a result may be that the information in the reading material can't be effectively perceived; stored and very often there are difficulties in following the logical and temporal sequence when it is required to interpret it.
4. Deficits in auditory and/or visual memory. Learners whose auditory memory is not good enough pick up the orally presented information only partially, so they are not able to make connections between these pieces of information and their level of comprehension is unsatisfactory. Similar difficulties encounter learners with poor visual memory – they struggle to remember what a word looks like or cannot recognise the same word on a different line of the text or on another page. This causes mistakes, sub vocalisation, choppy reading and – as a result – affects the comprehension.

In writing

When we talk about the literacy acquisition, we mean the formation and development of two basic skills: reading and writing. Difficulties in reading acquisition are often accompanied by difficulties in writing.

Professionals use different terms to describe these difficulties and dysgraphia (difficulties in writing) is just one of them. Whatever definition is being used, it is important to understand that the slow and poor handwriting does not mean that the child is not trying hard enough. For many children with dysgraphia, even the right grip on the pencil and "keeping" the letters on a line can be a big challenge.

The problems with writing can be caused by:

- Low level of the fine motor skills development.
- Visual and/or auditory processing deficits.
- Problems with visual-spatial orientation.

- Memory problems (when it is difficult to remember graphemes and what they look like).
- Difficulties with sound – letter correspondence.
- Problems with learning and implementing grammar and spelling rules.
- Inability to independently put thoughts and ideas in writing.

The difficulties can be divided into six groups:

Sound – Letter Correspondence

In writing the phoneme correlates to the letter. When a child has a vague notion of nearby phonetical sounds, the choice of one or another phoneme is difficult and as a result of this letters are replaced in writing. Problems that are observed because of difficulties with the differentiation of phonemes can be:

- Replacement of letters (especially those that represent similar sounds – in Bulgarian it is clearly seen when it comes to so called voiced and unvoiced consonants: [b]-[p]; [k]-[g]; [d]-[t]; [v]-[f], etc.).
- Difficulties in defining the first and the last sound of the word and respectively – to write them correctly.
- Very slow process of "coding" (it often looks like the child can't remember how to write the letter that represent the sound [s] for example) – this causes significant problems when writing a dictation.

Omission of letters or even syllables is a sign that the child can't differentiate the sounds of the speech. Similar difficulties are observed in children who have problems with pronunciation: If they pronounce the sounds incorrectly, their writing will also be full of mistakes.

Sequencing the elements of a word

As we know each word is "constructed" by separate letters and groups of letters (each of which representing certain sounds) put in a specific order. If we change the order, miss some of the elements or add some new element, we will have a new word. For example: let us look at the word "QUITE". Changing the places of the last two letters we will have "QIUET", if we miss the last letter, we will have "QUIT"; if we replace the third letter with "O" we will have "QUOTE". This is just one small example how important is to be aware of the correct sequencing of the elements in each word we are writing. Students with dyslexia tend to make all these mistakes. They could be caused by problems with the phonological perceptions/ awareness (can't differentiate the sounds); visual perceptions (unable to differentiate the letters or their elements when writing); or by sound – letter correspondence problems.

Handwriting problems

Problems with handwriting are maybe one of the most “visible” signs of the writing difficulties. Children with dyslexia often have difficulties in writing the elements of the letters correctly, keeping the letters within the row and very often the handwriting looks like the letters overlap each other, or some elements are missing. Children may mix some letters, especially those that looks similar: (line “n” – “m”; “b” – “d”, etc.). These difficulties often make the handwriting appear “clumsy”, uneven and illegible.

Grammar Rules/Spelling

Spelling is a complex activity that requires multiple skills. When we write, we must quickly and correctly think about how words sound and then "code" the sounds in print. It is necessary to remember a lot of spelling and grammar rules and all their exceptions. To write the words correctly, we need to differentiate the sounds that make up every word (especially in the case of similar sounding words); based on that we should be able to choose when to use which spelling. In English examples include *“sent – cent - scent”, “there - they’re - their”;* and so on. Such examples can be found in every language. `

Learners with dyslexia often confuse words that sound alike. They may mix the order of the letters in a word and this way compose a new word (for example: “left” instead of “felt”, or “from” instead of “form”).

When it comes to grammar rules, very often students with dyslexia do not apply them correctly, even if they know the rule. Mistakes observed depend on the specifics of the language. For example, in English the common grammar mistakes are: misplaced apostrophes, use of the modal verbs, use of words that define countable and uncountable nouns (many-much, few-little, amount-number, etc.) and use of pronouns.

As with reading, the problems with punctuation can be seen in the written work of students with dyslexia. During the stage of initial literacy acquisition, it is very important for children to understand the meaning of the punctuation marks and how a simple comma (for example) can change the meaning of a sentence. Teachers should use sentences that are important and meaningful to young learners. (a collection of English examples can be found at https://cybertext.wordpress.com/2012/11/22/a-light-hearted-look-at-how-punctuation-can-change-meaning/. Such examples can be found in most languages). Teachers should not assume that the children will “catch” the meaning and the punctuation rules by themselves. Giving instruction that “each sentence starts with a capital letter” only once or twice will not be enough for some learners. They will need to be reminded about the rules many times. A big colourful poster with punctuation marks placed on the classroom wall will be of help (especially if prepared by the children themselves).

Below are some links to interesting games and activities that may help children (not only those with dyslexia) to learn and correctly use the punctuation sign. Of course, the suggested games and activities are in English, but there may be similar in your language. If you

are unable find anything in your language, the suggested ones may give you ideas that you can use with your students.

- http://dyslexiaparents.blogspot.bg/2010/01/kung-fu-punctuation.html
- http://www.collaborativelearning.org/punctuationgames.pdf
- http://www.topmarks.co.uk/english-games/7-11-years/punctuation
- http://www.funenglishgames.com/grammargames/punctuation.html
- https://www.education.com/activity/punctuation/

Creative writing

Many children and adults with dyslexia can be really good storytellers. They may have the ability to see things from different perspectives, and in a different way than the others; they may notice and recall details and they often have a rich imagination – all these abilities are amongst the advantages for being a good writer. But at the same time students with dyslexia face some significant challenges that make it difficult for them to get their thoughts written down on paper.

When we talk about creative writing, it is not about the problems with handwriting and spelling that most of the students with dyslexia have (although, undoubtedly, good spelling is very important). Of great importance here, is the ability to perform sequencing, planning and organising of their ideas and thoughts and to present them in writing. Difficulties in one or more of these aspects can make the writing process difficult and slow for the student with dyslexia.

Often people with dyslexia tend to observe the world in the same way as they would look at a picture, as a series of images. This way of perception can cause problems with structuring their written work. The same can often be observed when they are telling a story – it often seems somehow “clumsy” and chaotic: although all details are present in the story, they are often not in the correct order. A way of helping the students to overcome these challenges is to teach them how to use a mind map in order to organise their thoughts and ideas.

As spelling, grammar and punctuation are of great challenge to the students with dyslexia and affects their writing, the written work of the learners often be in a poor quality. But if we want to maintain the learner´s wish and motivation to express his/her ideas in writing, we should forget about grammar and spelling while they are preparing the first draft. Teachers should encourage the learner to focus on the joy of creating stories (a very emotionally engaging process). Corrections could be made later, after the story is already well structured and written down. Then the teacher can discuss with the learner all the other aspects of the writing: to help him/her how to check the spelling in the dictionary, or to find synonyms, or to change the wording, etc.

For the learners, these difficulties may result in:

- High levels of frustration.
- Instability of the results (good days/bad days).
- Fatigue.
- Demotivation due to the difficulties encountered.
- Defensive strategies (avoidance, bypassing, passive resistance).
- Behavioural problems.

Methods and approaches to teach first language to dyslexic students

Multi sensory approach

When a child is born, it perceives the world through the senses: hears the sounds, sees the things or people around; touches, smells, tastes and explores moving around. By storing the information received though all perceptive channels in the brain, and using this information to explore the world further, the child learns. School and formal education comes much later but sending different information to the brain through various sensory channels (visual, auditory, tactile, kinaesthetic, etc.) facilitates the storing and retrieving of information and support the learning process itself. Proposing multi-sensory activities makes the process of teaching and learning particularly effective, because it is so close to the natural way of learning.

Ludic approach

Because the first language teaching usually starts from a very early age (although not formally), the ludic approach maybe the most appropriate (along with the Multisensory one) for young children and pupils at first grade. The purpose of the Ludic approach is to stimulate learning, offering the learner funny and playful activities which can not only maintain but increase motivation and lead to a total involvement of the learner. These activities require an involvement not only at a cognitive level but also at a linguistic, sensory-motor and emotional one. By using games in the learning process, learners may not only improve their academic capabilities, but also develop their linguistic, sequencing and organizational skills that are important in all their school years, and far beyond that.

Cooperative learning

Cooperative learning is an educational movement which includes a set of teaching-learning methods based on co-operation between learners. It favours using students' resources, rather than those of the teacher. It attaches great importance to student-student relationships and enables learners to learn from each other. The cooperative reading activities (student-student; teacher-student) can also be used as a "compensatory instrument" for students who have not yet developed an adequate competence in reading. https://www.teachervision.com/cooperative-learning/what-cooperative-learning-what-does-it-do

Shared Ideas

"Paired reading" is a very effective exercise, in which the teacher and the student reads aloud, pronouncing the words together. If the student pronounces a word incorrectly, the teacher gives the correct pronunciation. Then student repeats the word correctly and they continue reading together.

This activity builds student's self-confidence, and decreases the stress of reading, because he/she knows that the teacher will help whenever it is necessary. Gradually the teacher lowers his/her voice and lets the student to go on alone. Any time the student has difficulty with any word the teacher reads the word aloud, and then the student continues to read independently.

The very important part of paired reading is the encouragement: the student should feel the support and at the same time to hold the feeling that he/she can complete the reading task successfully.

Topping, K. (1995); Strickland, D. S., Ganske, K., & Monroe, J. K. (2002)

A similar technique may be used for creative writing – when a group of students create a story together. At first, they may discuss the plot and the characters; then each student would write a dedicated part. But it also could be done differently: one child starts a story, then another one writes the next one or two paragraphs, the third student continue and so on…. Or: the teacher could provide 1-2 paragraphs at the beginning and then each student may end the story the way he/she thinks is the best.

Analytical method

Analytical methods of teaching literacy can be quite effective when it comes to students with dyslexia. They are focused on the analysis of elements from the major to the minor parts. Teaching always starts from significant linguistic units and use memorization and association for assimilation of the information. The advantage of the analytical method is that it stimulates the reading comprehension, provokes the interest and increases the motivation. http://www.christianlehmann.eu/ling/ling_theo/holistic_vs_analytic_approach.html

Story-telling

At its core, "Storytelling" is the art of using language, vocalization, and/or physical movement and gesture to reveal the elements and images of a story to a specific, live audience (Evans- Metzger, 2000).

Every day people tell stories to each other. Obviously, it is not stories like "Cinderella" or "Peter Pan", but we tell each other what we have seen, or read, or what has happened to us. And we feel happy when people who listen to us are interested in what we are telling. But in order to make our stories interesting and easy-to-be-listened-to, it is very important to be a

good story-teller. Our stories should have simple and easy-to-follow structure; we should keep the sequence of events and the vocabulary we use should be appropriate. All this can be taught at a very early age.

Shared Ideas

Divide the class into groups of 3-4 students, and give each group a picture of something (it could be an object, a person, an animal, or a nature scene).

The first instruction should be: "Look at the picture, and after 3 minutes one person from each group will need to describe in details what you are seeing on the picture". (You may need to help students with the descriptions in the beginning).

After this is done, put all pictures in front of the class, so they can be seen by everybody.

The second instruction should be: "Now, after you heard all the descriptions, each group should think of a story, using the pictures. Link the images, including them in the story. You can choose the order of the pictures. Try to use as many pictures as possible."

Give the students enough time to compose their stories, and when the time is over, ask one person from each group to present their stories.

You may decide to make audio-records of the stories for future use.

Story-telling is the first step to creative writing.

Mind-maps

When we talk about teaching first language it is undoubtedly related to the years of the primary literacy acquisition. In different countries, the child's age may vary, but it is usually the period between 5 and 8 years old. At this age, the child's attention span is quite narrow; they are easily distracted and tend to avoid activities that are not interesting to them, or those that cause difficulties.

Mind maps could be used from the very early age as an effective teaching/learning tool. They capture the attention of even very young children, facilitating the understanding of new concepts and information. Mind maps use images, colours, shape, size and symbols to map out information in a visual and well-structured way that is easier to comprehend and proceed. They could be used even with children who do not know their alphabet, cannot read yet, but images and symbols help them to understand and learn. (CL Willis, 2006).

Hints for teachers

Difficulties with….	How could the teacher help?
Recognition and naming the letters	By training the visual perceptions and visual memory of the children, using different games (Memory, Domino, Lotto, etc.) By teaching the children how to find differences and similarities in different objects and then use these skills to find differences and similarities in the letters (shapes and orientation). By giving the children a model to follow when shaping/modelling the letters so that they can use it to correct their own visual perceptions By using different materials to help the children learn letters (modelling clay, dough, foam, sponges, sand, etc.) By using the space of the classroom (furniture, doors, walls) to place letters (especially those letters the children have not fully learned and automatized yet) – to let them observe the letters all the time.
Handwriting	By paying special attention to how the children write elements of the cursive letters and how they link the letters together when writing. Don't expect that a learner with dyslexia will figure out by himself/herself how to shape the cursive letters. In order to master the cursive writing, let the child use different materials and techniques – model the letters with clay, write them in a sand or foam, colour them, etc. Whenever it is possible include activities that develop students' fine motor skills and advice parents also to let the children do such activities at home). It may be very helpful for children who have difficulties with handwriting, if they start with writing big-sized letters. After they master the elements of the cursive writing, decrease the size of the written letters until they can match the lines of the notebook.

Difficulties with….	How could the teacher help?
Letter – Sound and Sound – Letter correspondence	By training the visual and auditory differentiation abilities of the children, using different games. By playing games in which the child has to name the first/last sound of different words; to list as many words as possible starting with the same letter/sound/syllable; to let the child spell the words he/she hears, etc. By using any opportunity to teach the child to quickly naming the letters (randomly shown to him/her), and to show the child the letters that match the sounds he/she hears. By making dictations of separate letters, gradually increasing the speed. By using different games to train the children's ability to switch their attention quickly. By letting the children know and be aware of different printing styles, so when they are facing a different looking text, it does not cause additional difficulties to match the sound to the letters.
Blending the sounds into a word (decoding)	It is recommended that teachers refrain from blending before being absolutely sure that the children easily recognise all the letters and have no problems with matching the sound to them. If a child has difficulties with blending, you may let him/her "sing" the words, keeping the sounds together. If a child is separating sounds instead of smoothly blending them together, you should stop him/her immediately. Please, avoid letting the child practice incorrect skills!
Dictations	One should not expect students with dyslexia being able to write dictations with the same speed and accuracy as the others. There will be a lot of missed, unfinished words, and even those that are written down may be with errors.

Difficulties with….	How could the teacher help?
	In order to help students, perform better with dictations, you may provide them with a list of words from the text you plan to dictate at least a day ahead of the dictation, allowing them time to get familiar with the spelling and exercise at home with parents' support. Whenever the student with dyslexia has to write a dictation, allocate extra time, allowing the student to check his result to find and correct any mistakes. Instead of checking the child's dictation and correcting errors in red (which is very demotivating for the children), you may provide the student with the text you have dictated, and ask him/her to check the dictation and correct the errors himself/herself (letting him/her use any colour for corrections).
Fluent reading	Please, pay special attention to the automatization of the sight words reading. If necessary spend more time on this exercise until you are sure the child is able to recognise all small words quickly. Make sure to choose/prepare a text that matches the child's reading level – the child should be able to read at least 90% of the words in the text independently. Avoid asking the child to read faster before he/she can read accurately. Accurate reading helps comprehension and speed will come in time. Advice parents to keep on reading to the child, even if he/she already has some reading skills. You may read together (taking turns) with the child. Help out with words the child find difficult. In order to keep the motivation, you may use audio books. After listening to a chapter, the learner may be asked to read the next one. To manage a larger amount of reading, you may use structured audiobooks. In the structured audiobook, the text and the audio are synchronised and the student can use both eyes and ears when reading the text.

Difficulties with….	How could the teacher help?
Punctuation	Pay special attention to the meaning of the punctuation marks. Explain to the child why it is important to respect the punctuation while reading. You may make a demonstration of the importance of the punctuation marks: at first read a text without respecting the punctuation; then read it again with proper expression. Check the level of comprehension in both cases. You may dedicate some time during lessons to train expressive reading, where the pauses and intonation are very important (role-play could be used). Do not expect that children will be able to use punctuation correctly when writing dictations. Students with dyslexia will need more time and more exercises. Teaching the children to add punctuation in dictations can be done step by step: At first, they should be able to put in the capital letters independently (without a reminder). Then to “feel” and mark the end of the sentences (full stop).
Reading comprehension	You may prepare flash cards for the unfamiliar or difficult words in the text the children are asked to read. Use some time during the lessons to teach pupils how to find an unfamiliar word in a dictionary; discuss the meaning of the word in the context of a sentence. You may separate the child is reading into story grammar components: setting, main character, action, and outcome. “Walk” through the story page by page, giving the children some time to look at pictures, illustrations, headers, sidebars, etc. This will prepare them for the information they are about to read, as well as improve their comprehension and concentration. You may take a trip to the library; letting the children look through some books. Ask them to pay attention to

Difficulties with….	How could the teacher help?
	illustrations, to find the names of the characters; returning to the classroom, you can discuss what they think the stories were about; what could happen to the characters, etc.
Creative writing	Before writing, you may discuss the topic with students and bring their attention to the main points (you can use a mind map for this – prepared by you before the lesson, or together with the students during the lesson). Explain the “six-question-rule” they should answer when writing a story: Who? When? Where? What? How? and Why? You may start preparing students for creative writing from an early age. With young learners, use series of pictures and key words to create a story. Provide a list of key words, synonyms and phrases. This would be of great help to your students with dyslexia to better organize their ideas and thoughts, and not to be afraid of using particular words just because they are not sure about the spelling. Avoid basing the student´s marks on spelling, punctuation or grammatical errors. Errors in assignments should be corrected but look for ideas, not clerical errors. Getting ideas down on paper is much more important than fretting over spelling, grammar and punctuation.

Some more advice:

- Pay attention to the emotions and feelings of the child as well as his/her reactions to any difficulties. Discuss the difficulties with the learner and try to explain why it is difficult for him/her to learn to read and write.
- You may look for a way to discuss the issues concerning dyslexia with colleagues and specialists - that can give you ideas on how to better support your students.
- Encourage the child to further develop skills and abilities in the areas in which there are no difficulties.
- Pay attention to behaviours that are meant as "smoke screen" - the child may behave in a provocative way to avoid dealing with tasks in which he/she feels uncertain.

- Avoid asking students with dyslexia to read aloud in front of his/her classmates unless you are absolutely sure he/she can manage it. In order to prepare him/her for such a challenge, you must allow for enough time to get familiar with the text in advance and time at home to go through the text to manage any difficult words.
- Keep your expectations for the child realistic in areas where he/she faces difficulties. In other areas, however, where there are no problems, be sure to keep them high.
- Be patient and calm. If you're anxious or upset, these feelings will be transmitted to the child and enhance his/her sense of insecurity.
- Help students maintain their motivation for learning. If they have any kind of learning difficulties their motivation to put more efforts will be at the risk of decreasing.
- Allow the child to discover things on his/her own; encourage being responsible and independent. Avoid punishment for mistakes; rather explain that mistakes are part of the learning process.
- Try to match your teaching style with the student's specific style of learning.
- Do whatever you can to make the child feel understood and accepted at school.

Learning technologies for inclusive teaching of first language to students with dyslexia

Typing

One of the main challenges for students with dyslexia is writing (because of their difficulties with spelling and structuring the text), and respectively – the note taking. Of course, in the first grades children need to learn how to write dictations, but later, going further in their education they will have to prepare more and more written work (homework, projects, essays, assignments, etc.). In dealing with this, learning technologies is of great help. There are lots of both free and commercial software products that can help with taking notes (like Evernote, Springpad, Microsoft OneNote, etc.). But in order to be able to use them to their full potential, the student should have good typing skills.

Touch typing courses can help the student improve his/her speed and accuracy and to thereby being able to complete any writing assignment faster and more efficient. Improved typing skills will also affect the reading and spelling in a positive way.

There are a lot of online touch-typing courses available in almost every language. Students may search the internet to find a suitable course. Most of the courses are online and the only thing needed is Internet access through one of the major browsers.

Mind-mapping software

Using mind maps has proven to be a very useful way to help students with dyslexia (and in fact useful for all students) to extract information from a text, to organise it, to memorise it and to retrieve it more effectively. It is a tool that can be used in all aspects of the learning process and for all subjects. When it comes to teaching first language, the mind-mapping software is especially useful to help students with creative writing and learning grammar.

Below are two examples of mind maps that could be used for these purposes.

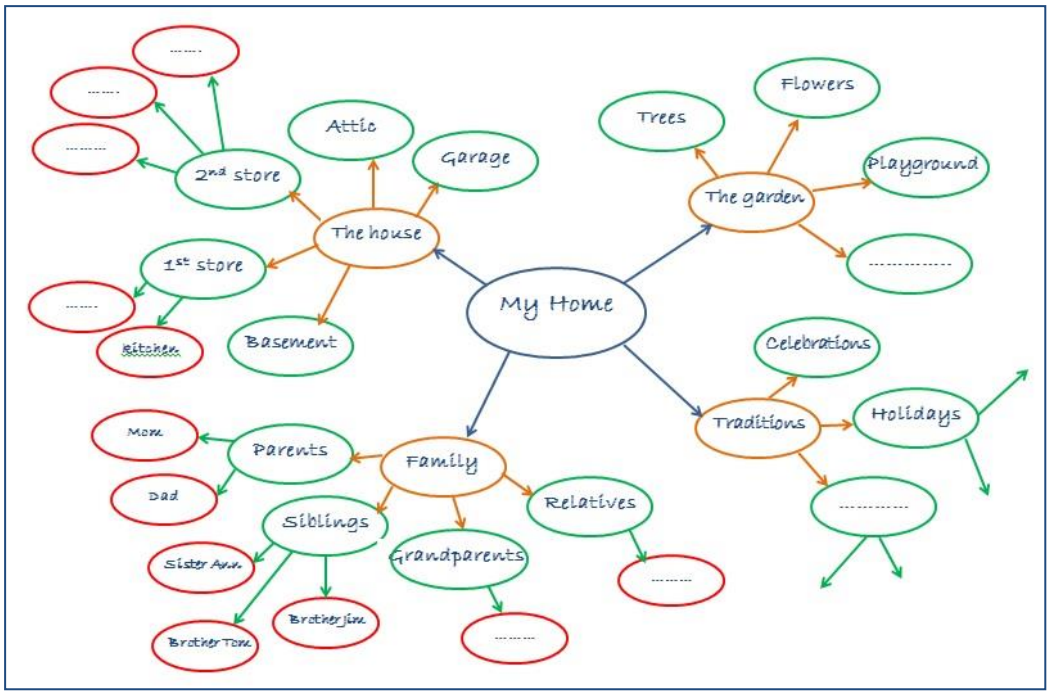

Figure 1: Example of mind map representing the structure of a composition titled "My home"

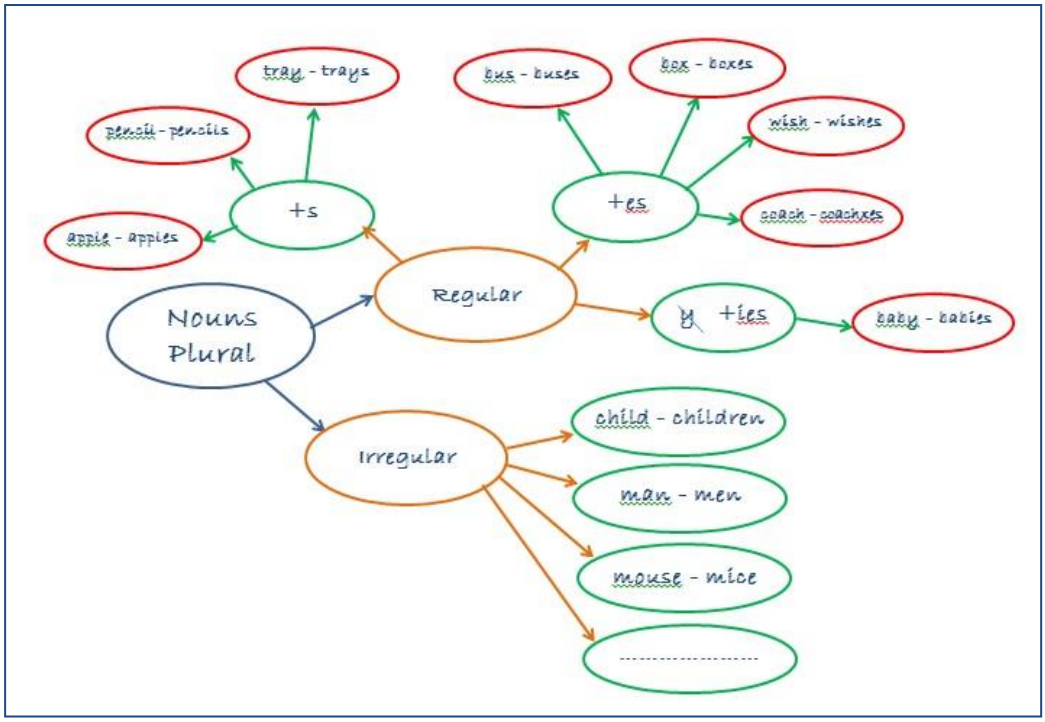

Figure 2: Example of mind map representing regular and irregular plural Nouns in English

On the internet, lots of both commercial and free mind-mapping software can be found. Below are links to some of them:

- MindView - **http://www.matchware.com/en/default.htm**
- Mindjet - **https://www.mindjet.com/**
- MindGenius - **http://www.mindgenius.com/**

- iMindMap - **http://imindmap.com/**
- Spark Space - **http://www.spark-space.com/**
- Inspiration - **http://www.inspiration.com/**
- Claro Ideas – **https://www.clarosoftware.com**
- Xmind - **http://www.xmind.net/** (free)
- Freemind - **http://sourceforge.net/projects/freemind/** (free)

Software to help creative writing

Storybird (https://storybird.com) – is a really interesting tool which gives children the opportunity to build up a story using images. The storybook is made up of pages with images and narrative parts; it can be composed with different pages and can have different layouts. Students can work in a group or everybody can produce his/her own personal book. The books could then be demonstrated as slide-show or printed and can be shared on their platform, so many more users can read them.

Titanpad (www.titanpad.com) – another tool that gives students the chance to write in a collaborative way on a digital white pad and to post comments on the side of the screen as the work goes on. It can be used across many devices: tablets, personal computers and smartphones. It's simple and may act as a starting point for young learners developing their creative writing skills.

I-Theatre - A good solution between tradition and innovation is the technological hand-chart, made by an Italian company, Edu-Tech and firstly demonstrated London BETT 2012 (British Education Training and Technologies). It is a new "integrated interactive system to create multimedia stories" (target group - children between 4 and 10). The tool lets students create stories starting from their drawings, animating them, and setting links to the narration. Here is a demonstration video: http://www.i-theatre.org/it/gallery/video.html or on YouTube: https://youtu.be/WDBTT3GH4kk.

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