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DYSLEXIA AND THE ENGLISH CLASSROOM
WHAT EFL TEACHERS NEED TO KNOW

Bratislava 2021

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Názov: Dyslexia and the English Classroom

What EFL Teachers Need to Know

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Vydavateľ: Z-F Lingua

Náklad: 150 kusov

Rok vydania: 2021

Vydanie: prvé

Jazyková úprava: M.A. Paul Vincent McCullough

Grafika obálky: Martin Chochula

ISBN 978-80-8177-089-0

EAN 9788081770890

Publikácia je financovaná zo zdrojov projektu VEGA č. 1/0118/20 s názvom Dyslexia ako jazykovo-kognitívna porucha a jej prejavy pri rozvíjaní čitateľskej gramotnosti v materinskom (slovenskom) a cudzom (anglickom) jazyku realizovanom na Katedre anglického jazyka a literatúry Pedagogickej fakulty Univerzity Komenského v Bratislave.

Sometimes it is the people no one imagines anything
of who do the things that no one can imagine.
Alan Turing

> Most teachers waste their time by asking questions that are intended to discover what a pupil does not know, whereas the true art of questioning is to discover what the pupil does know or is capable of knowing.
>
> **Albert Einstein**

If you have kids who are struggling with dyslexia,
the greatest gift you can give them is the sense that
nothing is unattainable. With dyslexia comes a very
great gift, which is the way that your mind can think
creatively.
Orlando Bloom

> I don't suffer from dyslexia, I live with it. I suffer from the ignorance of people who think they know what I can and cannot do.
>
> **Erica Cook, Learning Ally member**

The advantage is that my brain sees and puts
information in my head differently, more
interestingly than if I saw like everyone else.
Whoopi Goldberg

CONTENTS

Preface

Nowadays, knowing a foreign language is considered a must and in most European countries foreign languages are included in primary education curricula. Learning a foreign language requires the mastery of not only listening and speaking skills, but also reading and writing skills. Most learners do not show any significant problems when learning to read and write; however, a certain percentage of learners struggle and need to be identified in order to find out the cause of these problems, as reading problems may be caused by various factors. For example, a learner may have dyslexia, which has one of the greatest impacts on language learning in comparison with other learning disorders.

Kormos and Smith (2012: 11) explain that *"A common practice in the field of language teaching has been to exempt these students from foreign language learning on the grounds that the successful attainment of second language competence is beyond their reach, and the time spent in the language classroom might be better used for the development of first language skills."* This attitude towards learners with dyslexia seriously disadvantages them, as knowing foreign languages is as important as other skills. Therefore, when teaching these learners, techniques must be implemented that will make learning foreign languages effective, help them overcome their problems and respect their language learning needs.

Various research (Nijakowska, 2015; Nijakowska, Kormos, 2016) have shown that teachers do not feel prepared to teach learners with dyslexia. This book was designed to help pre-service and in-service language teachers to work effectively and successfully with learners with dyslexia at the lower secondary level.

The book consists of seven chapters. Chapter one presents a historical perspective on dyslexia and various definitions of dyslexia, taking into account different causes that have been described to date. Chapter two describes the most common symptoms of dyslexia focusing on cognitive symptoms, phonological processing problems, problems in sequencing and information structuring, processing of perceptual stimuli and problems in fine and gross motor skills. Chapter three discusses the effects of dyslexia on foreign language learning, and presents various cross-linguistic studies on how dyslexia affects learning transparent and non-transparent languages and to what extent orthographic consistency/ transparency affects the nature and degree of reading difficulties. Chapter four introduces the main principles of the multisensory approach that has been

proved to be very affective when teaching learners with dyslexia as well as other learning disabilities. Readers will become familiar with various multisensory strategies, including the Orton-Gillingham approach, which is among the most recommended approaches for teaching reading and writing to dyslexic learners. Chapter five discusses the main problems dyslexic learners face when learning vocabulary and provides tips and suggestions for teaching vocabulary as well as specific activities which teachers might use. Chapter six deals with teaching grammar to dyslexic learners and explains how dyslexia affects grammar learning; it also includes strategies that might be implemented when teaching learners with dyslexia. Moreover, various activities are provided which teachers can use. Chapter seven focuses on teaching pronunciation and techniques for developing phonemic awareness. Specific activities aimed at developing phonemic awareness and phonological skills are provided.

Each chapter presents the theoretical background, so that readers can become familiar with the important terminology, concepts and the most important information they need when teaching English as a foreign language to learners with dyslexia. After reading the theoretical part, they are asked to check their understanding of the theory by answering the reading comprehension questions; they are then instructed to do various tasks which should help them further develop their skills. Each chapter provides a summary of the most important terms the readers should become familiar with.

This book can be used by in-service teachers who wish to extend their knowledge about dyslexia and teaching English as a foreign language to learners with dyslexia. It is also intended as course material for foreign language teacher education, including pre-service and in-service teacher training provided by institutions of higher education (universities) and in teacher-training workshops. The activities provided in this book were created for lower secondary learners at the A1.1 proficiency level and correspond with the content of the textbook *Project 1* by Tom Hutchinson (2013), which is widely used by elementary schools in Slovakia.

We hope that pre-service and in-service teachers will find this book helpful and will become more familiar with the strategies they can apply when teaching learners with dyslexia. Every learner wants and needs to feel successful; therefore, it is very important to help all learners, not only dyslexic learners, to overcome the struggles they face when learning English as a foreign language by providing them with techniques and strategies which might be useful and effective for them and thus prevent them from becoming frustrated and discouraged. We agree with Nijakowska

(2010) who writes *"confusion caused by an inadequate teaching approach and by requirements that are impossible to fulfil, deprives individuals with dyslexia of the feeling of joy and satisfaction brought about by learning. Teachers' sensitivity and awareness of the nature of dyslexic difficulties and ways of overcoming them can definitely help to steer clear of such danger."*

1 Defining Dyslexia

Defining dyslexia is not an easy task. Many people think that learners with dyslexia have reading difficulties. However, different experts view dyslexia from different perspectives and this results in various definitions. Special education teachers might say these learners have problems when learning to read despite receiving adequate instruction. Educational psychologists would say that dyslexic learners have problems with reading that are unexpected regarding the cognitive abilities of the learner, but that general information processing skills might also be affected. Neurologists would claim that dyslexia is caused by the existence of differences in the structure and function of the neural circuits that are engaged by learners when reading.

Although dyslexia has recently been the object of study of various scientific disciplines such as neurology, neurolinguistics, educational psychology, psycholinguistics, didactics and more, in the past it was the subject of medical studies and physicians were the first to point out the existence of a disability connected with reading problems.

1.1 Dyslexia in the historical context

Dyslexia was primarily considered to be a medical problem and was studied by doctors. The first doctor who identified reading and spelling difficulties typical for dyslexia was **Adolph Kussmaul** (1877) a German Professor of Medicine. At that time, he viewed dyslexia as word blindness, as it was believed that the problems were related to some form of ocular deficit. In 1887, the term dyslexia was used for the first time by German ophthalmologist, **Rudolf Berlin**; however, this term was not widely accepted by researchers until the 1980s (Berlin, 1887; Reeves, 2015). Firstly, the cases that were described were "acquired" reading and spelling deficits resulting from brain injury or disease. Borkowska (1997) explained that acquired reading disabilities in adult patients had been often taken as a model for interpreting the neurological concept of developmental reading impairment. In 1891, Joseph Jules Dejerne, a French neurologist, published the results of his study dealing with the reading difficulties of a patient who had suffered from brain trauma. He explained that the patient had problems not only with reading but also with speaking and writing,

believing that these difficulties were the result of neurological impairment in his brain caused by trauma (Dehaene, 2009).

The reading difficulties observed in those times were considered to be a medical problem resulting from neurological disorders; however, there was no agreement on how to distinguish different sources and types of reading difficulties. In 1930s, the term dyslexia became widely used among educators and dyslexia itself became a subject of study in the field of educational psychology. But as Reeves (2015) emphasizes, **Sir Francis Galton** was one of the first persons who studied dyslexia from the educational point of view. In 1869 he studied the effects of individual differences on different learning difficulties. **Pringle Morgan** was the first physician who dealt with the question of developmental dyslexia, which he referred to as a problem in learning to read in childhood and lack of achievement in the development of reading skills. He described the case of a 14-year old boy who had good intellectual capacities but failed to learn to read.

Systematic research on dyslexia began in 1917 when **James Hinshelwood**, a Glasgow eye surgeon, attempted to describe the symptoms of dyslexia. Both Hinshelwood and Morgan stated that dyslexia is of neurological origin (Kormos, Smith, 2012). They noticed that dyslexic children showed symptoms which were typical for visual word blindness, which was first noted by Dr. Dejerine, who observed adults who had undergone damage to the left inferior parieto-occipital region which resulted in their problems with reading and writing. He suggested that the area in the brain called left angular gyrus might be crucial for processing the images of letters (Dejerine, 1891). Hinshelwood (1917) believed that the cause of dyslexia might be the defective development of the same parietal region in the brain which was damaged in adult alexic patients. However, these hypotheses were not confirmed until the first pathological examination of a boy who was dyslexic and had died from brain haemorrhage; the examination revealed brain malformations in the cortical gyri of the left inferior parietal region as well as ectopias in the outer cortical layer (Drake, 1968; Habib, 2000).

In the USA, renowned neurologist **Samuel Orton** studied patients who exhibited reading difficulties and stated that their problems related to symbol twisting, confusing the letters “b” and “d” and interchanging letters in words (Kormos, Smith, 2012). He started using the term **strephosymbolia** to refer to this condition but later adopted the term **alexia** which he used to refer to children who had problems with reading (Orton, 1966). As J. L. Orton explains: *“It was in 1925*

that he first called the attention of his medical colleagues in neurology and psychiatry to the fact that many otherwise-normal children have a specific difficulty in learning to read. From that time until his death in 1948, Dr. Orton devoted himself to research and teaching in this field, training other workers and helping many individual children to overcome their language handicaps. In the succeeding years, his ideas have been developed in other medical centres and put into practice by many teachers and educators throughout the country."

Dr. Orton is mainly known for his **lateralization theory of dyslexia**, according to which the lateralization of language functions to the left hemisphere was delayed in dyslexic children and hindered the development of their ability to read. On the basis of this theory, many studies in the second half of the 20th century were carried out to define the causes of dyslexia (Obrzut, 1988; Harel, Nachson, 1997).

1.2 Causes of dyslexia and definitions of dyslexia

Over the years, dyslexia became the focus of neurological research while neurolinguists claimed that dyslexia was of neurobiological origin characterized by difficulties in reading and writing (Cook, Ryan, 2016). Habib (2000) explains many research studies focused on brain asymmetry and cortical asymmetry in dyslexia and presented three important theories focusing on neurofunctional defects of the dyslexic brain – the phonological processing theory, the visual theory and the temporal processing theory. **The phonological deficit theory** suggests that dyslexic learners have deficits in the representation, storage and/or retrieval of speech sounds (Ramus et al., 2003; Snowling, 2001). **The visual theory**, on the other hand, highlights visual impairment as contributing to difficulties which dyslexic learners have in processing letters and words. The representatives of this theory do not exclude the phonological deficit; however, believe that visual impairment also plays a crucial role in reading problems (Lovegrove et al., 1980; Stein and Walsh, 1997). As Habib (2000) explains in **the temporal processing impairment theory**, dyslexia is referred to as a multi-system deficit that is believed to be based on a fundamental incapacity of the brain in performing tasks that require the processing of brief stimuli in rapid temporal succession. Valdois et. al. (1995) also point at the existence of **visuo-attentional dyslexia** which occurs when errors made by dyslexics are due to purely perceptual impairment.

Various research studies (Lovegrove et al., 1980; Martin et al., 1987) showed that dyslexic children process visual information more slowly. Habib (2000), however, emphasizes that *"the considerable research effort currently devoted to visual theories of dyslexia may seem disproportionate, since almost all in the field agree that phonological impairment is the crucial phenomenon".* Another hypothesis taking into account phonological as well as visual deficits is known as **the temporal (rate) – processing theory of dyslexia** which focused on exploring the ability of dyslexic children to process rapidly changing auditory or visual stimuli. The neurological research data obtained by neuroimaging studies suggest that reading difficulties of dyslexic people might be explained by the existence of differences in the structure and function of the same neural circuits that are engaged by mainstream learners when reading, including the areas of the brain such as left-lateralized temporo-parietal, occipito-temporal, and inferior frontal cortices (Paulesu et al., 2014). On the basis of the data obtained by various neurolinguistic research studies, it can be concluded as Verhoeven, Perfetti & Pugh (2019: 9) explain that *"Although there are no uniform criteria for dyslexia and its genetic or neurocognitive underpinnings, it is generally accepted that developmental dyslexia can be considered a neurobiological disorder with a genetic origin."*

Defining dyslexia is not easy, as various aspects need to be taken into consideration. Kormos and Smith (2012) explain the four different levels that need to be looked at when making definitions of dyslexia are: behavioural, cognitive, biological and environmental. Regarding the **behavioural level**, dyslexia is viewed as a reading problem. However, according to Frith (1999) this explanation of dyslexia is insufficient, as reading difficulties can be caused by various factors aside from dyslexia and therefore, they cannot be considered to be the only diagnostic criteria for dyslexia. Firth (1999: 209) compares this definition to the definition of measles from the point of view of an increase in body temperature: *"To define dyslexia in terms of reading test performance is rather like defining measles as an increase in body temperature. Raised temperature, however, is merely a sign of the infection, not the illness itself. Decreasing the temperature is usually a good thing, but it does not cure the illness. All the knowledge accumulated in dyslexia research indicates that dyslexia is not a disease which comes with school and goes away with adulthood. It is not a temporary childhood affliction, it is a life-long burden."* At the cognitive level, reading problems have been explained in relation to the cognitive functioning of dyslexic learners. It is crucial to differentiate between dyslexia and general learning difficulties. At **the biological level**, the neurological/genetic causes of dyslexia are taken into consideration (Kormos, Smith, 2012). It has

been found out dyslexia is hereditary. If a parent is dyslexic, there seems to be a 50% chance that a child will also have dyslexia (Londhe et al., 2007). Kormos and Smith (2012) emphasize that **environmental factors** also need to be taken into account in order to separate cultural, economic and social status as well as inadequate teaching on reading behaviour from the developmental dyslexia.

As we can see, defining dyslexia is not an easy matter; this is obvious from the number of definitions that have arisen and the ongoing debate about the best definition. However, to settle on one definition of dyslexia has been difficult if not impossible, as dyslexia has been studied from different perspectives and takes into consideration the changing concept of dyslexia due to findings and information that has been observed and studied and obtained through research and leading to modifications of already existing definitions. In 1968, **the World Federation of Neurology** defined dyslexia as a kind of disorder resulting in problems in reading despite the fact that the individual has adequate instruction and intelligence: *"Specific developmental dyslexia: A disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and socio cultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin (*Pumfrey, Reason, 1992:14*).*"

In 1989, **the British Dyslexia Association** published a definition in which the term specific difficulty in learning as a reference to dyslexia was used and replaced the term disorder and the emphasis was mainly on pointing out the particular problems dyslexic learners have when learning: "*We define dyslexia as a specific difficulty in learning, constitutional in origin, in one or more of reading, writing and spelling and written language, which may be accompanied by difficulty in number work. It is particularly related to mastering and using written language (alphabetic, numerical and musical notation) although often affecting oral language to some degree (*Pumfrey, Reason, 1992: 14*).*" In 2007, the British Dyslexia Association extended its definition of dyslexia. In addition to attempting to specify the areas which tended to be considered problematic for dyslexic learners, it noted that dyslexia was inborn, a lifelong matter and that intervention played a crucial role in the education: *"Dyslexia is a specific learning difficulty which mainly affects the development of literacy and language related skills. It is likely to be present at birth and to be lifelong in its effects. It is characterized by difficulties with phonological processing, rapid naming, working memory, processing speed, and the automatic development of skills that may not match up to an individual's other cognitive abilities. It tends to be resistant to conventional teaching*

*methods but its effects can be mitigated by appropriately specific intervention, including the application of information technology and supportive counselling (*British Dyslexia Association, 2009*)."*

In 2009, **the International Dyslexia Association** came up with its own definition that was based on all four levels that were previously mentioned – biological, behavioural, cognitive and environmental stating that *"Dyslexia is a specific learning disability that is neurological 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* (The International Dyslexia Association, 2009)."

Although there are different definitions of dyslexia, it is still difficult to define. Dyslexic learners even differ from each other; some are only slow in reading, some have severe phonological processing problems and thus decode words inaccurately, and some have both speed as well as phonological processing problems (Wolf, Bowers, 1999). We teachers need to think about educational factors such as quality remedial instruction and a supportive home environment, which contribute to educating dyslexic learners and mitigating the manifestations of dyslexia (Kormos, Smith, 2012).

Answer the following questions:

1. Why were doctors the first ones who started studying dyslexia?
2. Try to create a definition of dyslexia that might have been used in the particular time periods taking into consideration the view on dyslexia in those times.
3. What are the following people associated with?

Adolph Kussmaul, Rudolf Berlin, Sir Francis Galton, Pringle Morgan, James Hinshelwood

4. Explain the difference between the phonological processing theory, the visual theory and the temporal processing theory.
5. Compare different definitions of dyslexia and explain what they have in common and what aspects they differ in.
6. What does it mean that educational factors such as quality remedial instruction and a supportive home environment contribute to educating dyslexic learners and mitigating the manifestations of dyslexia?

Task 1 Read a digitized version of the article "Doctor Fights for Dyslexia Theory" from the Times's print archive that can be retrieved from the following website: https://www.nytimes.com/1985/11/24/nyregion/doctor-fights-for-dyslexia-theory.html. Then answer the following questions:

1. Who was Dr. Levinson?
2. What definition of dyslexia did Dr. Levinson use? Do you agree with his definition? Explain.
3. Which other disorders did he attribute to dyslexia?
4. Why did critics consider Dr. Levinson's research as sloppy?
5. What was Dr. Levinson's theory? Explain.
6. Name doctors who supported Dr. Levinson's theory and explain why.

Task 2 Create a timeline of information about the important people who dealt with dyslexia.

Task 3 Take one card (see Appendix 1) that includes information about the person you represent. Move around the classroom and try to find your pair by asking questions and trying to find out who represents the same person.

Task 4 Work in pairs and create an anamnestic questionnaire for parents of a dyslexic learner in order to find out about the prevalence of dyslexia in the family as well as how the parents found out that their child might have dyslexia.

Task 5 Choose one definition of dyslexia which you consider to be the "best one" and try to express this definition in a form of art.

Task 6 Nowadays, various articles dealing with the questions of adequate definitions of learning disabilities and pointing at the inadequate use of the word "disorder" when referring to dyslexia can be found in various journals. Find at least two studies arguing that dyslexia should not be labelled as a disorder and explain the arguments used in these studies.

Terminology to remember

acquired disorders (reading and spelling deficits)	*Acquired reading and spelling deficits result from brain injury or disease and connote either total or partial loss of the already possessed ability to read or spell (Nijakowska, 2010).*
alexia	*Alexia is aphasia marked by the loss of the ability to read (Merriam-Webster dictionary, https://www.merriam-webster.com/dictionary/alexia)*
developmental dyslexia	*Developmental dyslexia is typically defined as a specific learning disability characterized by difficulties with accurate and/or fluent word recognition and poor spelling and decoding abilities. The disability occurs despite the receipt of normal classroom instruction and sociocultural stimulation and opportunities. Developmental dyslexia is considered a neurobiological disorder with a genetic origin (Verhoeven Perfetti, Pugh, 2019).*
intervention	*Intervention is action on the part of a psychotherapist to deal with the issues and problems of a client. The form of intervention is guided by the nature of the problem, the orientation of the therapist, the setting, and the willingness and ability of the client to proceed with the treatment (American psychological association, https://dictionary.apa.org/intervention)*
perceptual deficit	*Perceptual deficit is an impaired ability to organize and interpret sensory experience, causing difficulty in observing, recognizing, and understanding people, situations, words, numbers, concepts, or images (American psychological association, https://dictionary.apa.org/perceptual-deficit)*
strephosymbolia	*Strephosymbolia is a learning disorder in which symbols and especially phrases, words, or letters appear to be reversed or transposed in reading (Merriam-Webster dictionary, https://www.merriam-webster.com/medical/strephosymbolia).*

2 Symptoms of Dyslexia

Dyslexia is commonly associated with reading and spelling difficulties, but in order to understand the core of these difficulties in dyslexic learners we need to be aware of the reading process and what learning to read involves. Kormos and Smith (2012 :28) explain that *"reading is a complex skill in which several processes need to work parallel and automatically to aid the decoding information. Reading skills are hierarchical in the sense that low-level reading processes such as word recognition and sentence comprehension need to be automatized before readers can be expected to understand the overall informational content of a text."* In order to decode words, learners need to be able to combine the following processing mechanisms: orthographic processing, phonological processing, morphological processing and accessing the semantic and syntactic information related to the word. **Orthographic processing** refers to the ability to recognize particular letters. **Phonological processing** refers to the ability to convert letters to sounds, combine sounds to form syllables and phonologically activate word forms (Perfetti, 2007). Once the learners have recognized words and decoded them, the higher order reading processes need to be applied which involve creating a text model and processing the informational content of the text. Moreover, a situation model also needs to be applied, as it helps readers interpret the information presented in the text taking into account the readers' experience and relevant background knowledge (Kintsch, 1998).

Various studies (Moody, 2004; 2007; Snowling, 2006; Fawcett and Roderick, 1993) point at **the cognitive symptoms of dyslexia**, such as problems related to short-term memory, phonological skills, sequencing and information structuring, perception and movement. Levine (2002) explains that short-term memory plays a crucial role in the short retention of information that can be immediately used. Moody (2004) emphasizes that dyslexic learners tend to have weak short-term memory and therefore they experience problems in carrying out the following tasks:

- copying from the board correctly
- remembering information
- remembering their ideas while speaking, writing, listening or reading
- remembering numbers such as dates and names
- doing several tasks at the same time, such as taking notes while listening to the teacher
- repeating long words and phrases

Nowadays, current views about dyslexia consider the phonological processing problems to be the core of the reading difficulties of dyslexic learners which are mainly visible at the word-recognition stage (Kormos, Smith, 2012). Moody (2004) mentions that due to **deficient phonological skills** dyslexic learners tend to have:

- poor accuracy while reading
- low speed while reading
- poor spelling
- poor comprehension of words, especially long words
- problems with pronouncing long words

Regarding the phonological processing problems, dyslexic learners are said to have difficulties in segmenting words into sounds and learning and applying sound-letter correspondence rules. Research (Bowers, Swanson, 1991; Wolf, 1991) has also shown that dyslexic learners have problems with accuracy and speed when processing orally presented information, as the phonological processing is not implied just in reading and writing but also in speech perception and speech production. Dyslexic learners tend to perform significantly worse in sound-discrimination and word repetition tests than mainstream learners, suggesting a weakened phonological short-term memory, which is important for storing unfamiliar sound patterns while long-term representations of words are created. Dyslexic learners also tend to have impaired phonological short-term memory in phonological processing. This usually results in a smaller range of vocabulary and slower word retrieval, for example when naming objects in pictures.

They also seem to have problems in **sequencing and information structuring** which, as Rainger (2003: 3) says, *"can have a huge impact on the accessibility of information, and more broadly the accessibility of information architecture. The effect of short-term memory problems and sequencing can mean an increase in the likelihood of a dyslexic student becoming lost in a hypertext structure."* Weak sequencing and information structuring skills lead to problems with:

- writing and copying a text accurately
- following and understanding instructions
- filling in different forms
- taking notes
- structuring written assignments

Apart from the above deficits, dyslexic learners tend to struggle with **the processing of perceptual stimuli**. As a result, they may see letters back to front or upside-down (m/w or p/b), or in the wrong sequence (*was* as *saw*). Moreover, they may miss out words or even lines, make sound substitutions in reading, have problems with left to right orientation, or keeping track of letter sequences in long words such as *conservation* as *conversation* (Moody, 2004; 2007).

It has also been observed that dyslexic learners appear to have **problems with fine and gross motor skills**. As fine motor skills are needed for writing, deficits in this area result in slow and sloppy handwriting that is difficult to read. Gross motor-coordination problems cause difficulties when playing different kinds of sports, maintaining balance or judging distance (Doyle, 2002). According to Nicolson and Fawcett (2008) dyslexic learners tend to be generally slow when acquiring new skills.

The problems that dyslexic learners experience with reading and writing can be described by taking into consideration the above symptoms of dyslexia. Cimermanová (2016) explains that a dyslexic learner's reading is usually hesitant and laboured; they often confuse similar letters such as *b-d, m-n, p-d, u-n* as well as letters with similar sounds. They also tend to omit or add extra words, and may read at a reasonable rate; however, their comprehension might be weaker. They may also fail to recognize familiar words, miss a line or read the same line twice. Such *double reading* as well as problems with using dictionaries, directories and encyclopaedias are commonly experienced by dyslexic learners. Regarding writing skills, dyslexic learners struggle with punctuation, grammar, upper and lower-case letters, forming the letters correctly and spelling in general. When preparing some written assignments, they have problems with organizing their thoughts and ideas and reading quickly.

Dyslexia is not just about reading difficulties; the deficits appear in various areas that have an impact on developing literacy skills as well as learning. However, we must keep in mind the following statement by Kormos and Smith (2012: 38): *"Literacy problems are frequently associated with other areas of cognitive functioning such as lack of sustained attention, difficulties in proceduralization and automatization of knowledge and problems with gross and fine motor skills. Even if dyslexic students have managed to overcome their literacy problems, their overall learning difference is not likely to disappear and it will affect them throughout their lives."*

Answer the following questions:

1. Which cognitive symptoms of dyslexia have been identified?
2. Why is reading considered to be a complex skill?
3. If a learner has problems with orthographic processing, what does it mean for you as a teacher?
4. If a learner has problems with phonological processing, what does it mean for you as a teacher?
5. Why do dyslexic learners have problems with using dictionaries, directories or encyklopaedias?
6. What is double reading and what can teachers do to help learners to avoid it? Make some suggestions.

Task 1 Put the following types of problems that dyslexic learners have into the correct category (weak sequencing and information structuring skills, deficient phonological skills, weak short-term memory).

poor comprehension of words, taking notes, copying from the board correctly, remembering information, repeating long words and phrases, filling in different forms, poor spelling, remembering numbers such as dates and names, problems with pronouncing long words, writing and copying a text accurately, remembering their ideas while speaking, writing, listening or reading, low accuracy while reading, following and understanding instructions, copying from the board correctly, doing several tasks at the same time, for example taking notes while listening to the teacher, low speed while reading

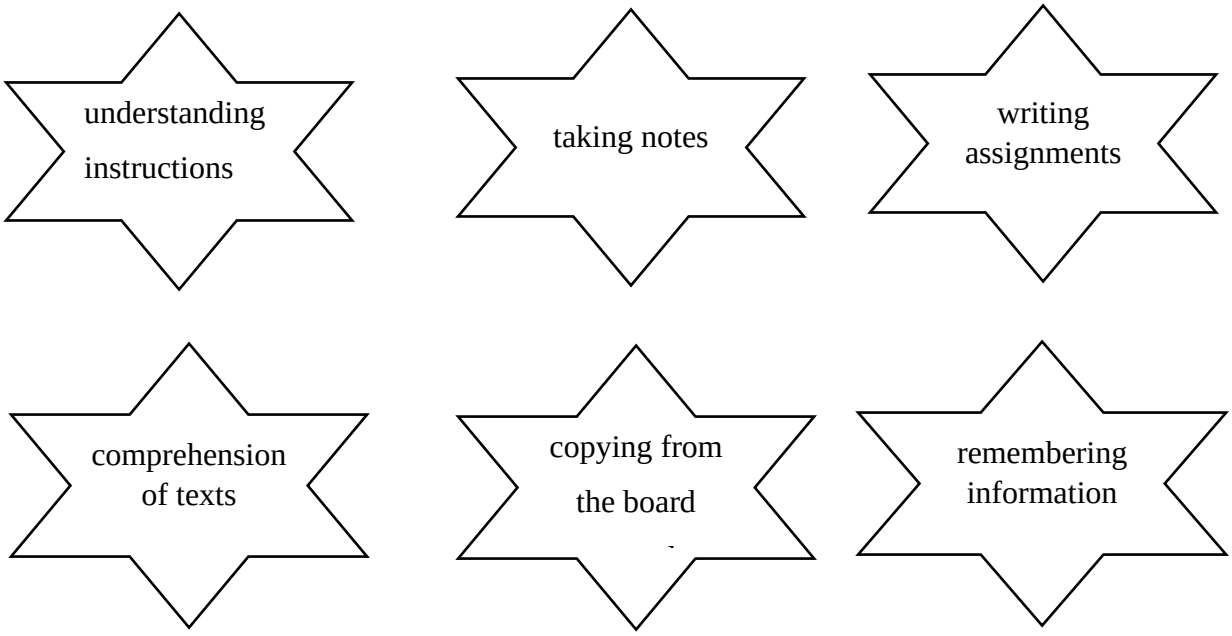
weak sequencing and information structuring skills	**deficient phonological skills**

weak short-term memory

Task 2 Watch the following interviews with children, an actor and an actress who have dyslexia talking about the obstacles they have had (or had) when learning at school and write them down (https://www.youtube.com/watch?v=sLWBqz_GrRQ, https://www.youtube.com/watch?v=OLb6ehPPc4E, https://www.youtube.com/watch?v=-_ij_ZyDwVI). Then summarize what the learners have in common and how they are different.

Task 3 Work in pairs. Imagine that you are a dyslexic learner. Take one card which describes the areas that you have problems with (sequencing and information structuring, deficient phonological skills, weak short-term memory). Do not say or show it to your partner. Your task is to talk about the particular problems "you have" when learning. Your partner's task is to identify the area to which the problems refer. The cards can be found in Appendix 2.

Task 4 Work in pairs and try to suggest helpful strategies which you as a teacher might apply when working with dyslexic learners in the following areas.



Task 5 Look at the example of a Slovak dyslexic learner's writing (see Appendix 3) and describe the types of problems he/she had.

Task 6 Interview an English teacher who has experience with dyslexic learners or a special education teacher who works with dyslexic learners and ask him/her about the problems that a particular dyslexic pupil or pupils encounter when studying foreign languages as well as other subjects and the learning strategies that they apply. Then write a casuistic report about the learner(s).

Terminology to remember

accuracy	*Accuracy is the ability to do something without making mistakes (Cambridge dictionary, https://dictionary.cambridge.org/dictionary/english/accuracy).*
auditory (sound) discrimination	*Auditory discrimination is the ability to recognize differences in phonemes (the smallest unit of sound in a language), including the ability to identify words and sounds that are similar and those that are different. Auditory discrimination tests are performed to measure a person's phonological awareness, such as the ability to focus on and manipulate phonemes within spoken words (Kuczynski B., Kolakowsky-Hayner S.A. ,2011)*
decoding skills	*Decoding skills are the tools needed to make sense of the spoken or written word. These skills are necessary in order to read, write and speak. The word decoding commonly refers to understanding on the word level and not comprehension of higher meaning (Konstam E., Neuhaus D., 2011).*
short-term memory	*A type of memory that holds a limited amount of information to be used for a short period of time. When rehearsal is prevented and thus the short-term memories are not consolidated into long-term memories, the period of time that short-term memory is held is for a few seconds (Gromisch E.S., 2011)*

3 Dyslexia and Foreign Language Learning

Learning foreign languages is a must in today's multilingual environment. Foreign languages are taught at schools and learners tend to have different degrees of difficulty in learning a foreign language. Various explanations have been offered to explain these difficulties, such as a lack of foreign language aptitude, poor attitude, low motivation, anxiety, and the failure to use appropriate strategies. However, no variables to account for difficulties learners face when learning foreign languages have been proven (Brown, 2000; Lundberg, 2002; Sparks et al., 2006). In the 1960s, it was suggested that individual differences in foreign language learning related to the overall language ability of the learner and the forms of instruction. Learners who had difficulty when learning a foreign language were said to demonstrate poor sound discrimination skills and problems with sound-symbol learning (Schneider, 1999; Ganschow et al., 1998). Later, in the 1980s, a connection between foreign language learning and native language learning was suggested. Nijakowaska (2010) explained that *"foreign language learners with specific learning difficulties share various aspects of language functioning that might negatively influence their ability to learn a foreign language"* Some researchers (Schneider, 1999; Ganshow & Sparks, 1995) even pointed to the fact that learning a second or foreign language was more or less the equivalent of learning the first language and that children who learned their first language faster also tended to have better scores in foreign language aptitude tests. Gajar (1987) carried out a study in which he compared a group of learners with specific learning difficulties and mainstream learners based on their language skills scores on the Modern Language Aptitude Test (Carroll & Sapon, 1959). Learners with the specific learning difficulties performed more poorly in all of the parts of the test focusing on auditory comprehension, sound-symbol association ability, vocabulary knowledge, sensitivity to grammatical structure and visual memory for words. It was concluded that learners with specific learning difficulties had had some language-related problems even before they started learning a foreign language.

In the 1980s, Sparks et al. (1989) conducted research on learners who had problems with learning foreign languages and who struggled with reading and writing in their native language. This group was comprised of learners with specific learning difficulties and low-achieving learners who had not been diagnosed with a learning disability but were considered to be at-risk learners. Sparks and Ganschow (1991) tried to explain why such learners had problems when learning

foreign languages, and proposed **a linguistic coding deficit hypothesis** claiming that poor foreign language learners tended to have a disability in linguistic coding, distinguishing between the three types of linguistic coding deficits: phonological, syntactic and semantic. **The phonological deficit** involves problems with identifying and distinguishing between speech sounds and processing sound/symbol connections. **The syntactic deficit** involves problems with understanding and applying grammatical and structural concepts of a language system. **The semantic deficit** involves problems with understanding meaning. Nijakowska (2010: 69) explains that *"it is also speculated that both native and foreign language learning depend on basic language learning mechanisms, moreover problems with one language skill are likely to have a negative effect on both the native and foreign language systems. Furthermore, it is assumed that the majority of poor foreign language learners experience most difficulty with the phonological/ orthographic rule system of the second language."*

Nowadays, cross-linguistic studies suggest that even the linguistic properties of languages, the phonological, morphological and orthographic characteristics, may have an influence on the type and amount of problems learners have when learning to read and write in the particular language. Languages can be classified as "transparent" or "opaque." In **transparent languages** (such as Slovak), grapheme-phoneme correspondence is more or less reliable and children can rely on this correspondence and thus read unfamiliar words without huge problems. However, in **opaque languages**, such as English, phoneme-grapheme correspondence rules are less reliable, thus letters can be pronounced differently, making it more difficult for learners to identify how unfamiliar words should be read. Wydell & Kondo (2003) believe that orthographies can be described in two dimensions: transparency and granularity, and that a bilingual learner who is dyslexic in one language may perform at a very good level in another language. They described the case study of a bilingual boy who showed signs of dyslexia in English such as poor reading and writing, and text recall from memory; however, this deficit did not affect his reading in Japanese. Wydell & Butterworth (1999: 281, 282) concluded that *"orthographic consistency/transparency affect both the nature and degree of reading difficulty. When grapheme to phoneme relation is consistent, even children with phonological deficits may be able to learn to map print into sound without showing a delay in reading acquisition. Developmental phonological dyslexia should not manifest itself in a writing system where the print-to-sound relationship is transparent."*

Łodej (2016) explains that cross-linguistic studies and comparisons pointing at different manifestations of dyslexia in various languages have highlighted various aspects of dyslexia and that dyslexia has started to be studied also from the language-specific point of view. The performance of dyslexic learners in English as the first language as well as the second language in comparison to their performance in other languages has been compared. Ziegler et al. (2003) compared the performance of English and German dyslexic learners in order to find out differences in reading speed and accuracy between dyslexics and control groups in both languages. The data showed that both English and German dyslexics were slower and less accurate when reading in comparison to mainstream learners. However, English dyslexics made more errors than German dyslexics. A non-word reading deficit was observed in dyslexic learners in English as well as in German, thus supporting the claim that phonological deficits play a crucial role when learning to read. Paulesu et al. (2001) compared two opaque languages, English and French, with the shallow script of Italian. This study focused not only on the performance of the dyslexic learners but also on the activation of particular brain parts during the reading process. The results showed that Italian dyslexics performed better on reading tasks than French and English dyslexics, however, when reading, the same reduced level of activity in the region of the left hemisphere was shown in Italian, English as well as French dyslexics. Łodej (2016: 105) concludes that *"the study confirmed the existence of a universal neurocognitive basis for dyslexia, but at the same time recognized differences in the reading performance of dyslexics due to the different orthographies they represent."*

Research studies have also been conducted regarding the questions of dyslexia manifestations in English as the second or foreign language, taking into consideration whether English as a second language and the language which is the learners' first language share the same properties regarding transparency and the type of dyslexia impairment of the dyslexic learner. A study carried out in China focused on observing a child with dyslexia in Chinese. He had deficits in phonological awareness, phonological memory, rapid naming and orthographic skills in Chinese, but very good phonemic skills in English (Ho & Fong, 2005). Van der Leij and Morfidi (2006) studied learners who learned to read in Dutch as their first language and English as their second language. The data revealed that eight learners were poor in Dutch as well as in English regarding their reading, but eight learners were poor in Dutch, but good in English. The authors (2006: 86) concluded that their study *"only in part supports the view of the dyslexic preference for*

English…dyslexic variable preference for orthographic processing is preferred." Miller-Guron and Lundberg (2000) compared the performance of Swedish dyslexic learners in Swedish, their first language, and English, their second language. As shallow Swedish orthography is characterized by difficulties regarding phoneme to phoneme decoding, Swedish learners with dyslexia who have weaker phonological skills, seem to prefer reading in English which has deeper orthography. Van der Leij and Morfidi (2006) think that although a universal phonological core deficit is one of the reasons behind the transference of difficulties from the first language to the second language, variable orthographic competence may influence reading and explain the differences between dyslexic learners' difficulties in reading in the first and second languages. Nijakowska (2010: 84) concludes that "*it seems that, generally, native language competence serves as a basis for foreign language faculty and children who develop faster in their native language tend to manifest higher foreign language aptitude. Then, logically enough hampered ability to learn a foreign language in students with dyslexia can be attributed to the lack of solid foundation in their native language*."

In conclusion, various studies of dyslexia in English as well as other languages have been conducted in order to describe the nature of developmental dyslexia and how it is manifested in various languages, and to compare the similarities as well as differences. The knowledge gained from these studies should further serve teachers when preparing teaching materials for learners with dyslexia. Moreover, it should help teachers better understand the difficulties these learners might face when learning a particular language.

Answer the following questions:

1. Explain the difference between transparent and opaque (non-transparent) languages. Give examples of transparent and opaque languages.
2. Which three types of linguistic coding deficits do poor foreign language learners tend to have? Explain how these deficits might affect foreign language learning.
3. What did Ziegler find when comparing the performance of English and German dyslexic learners? What do English and German have in common and how are they different?

Task 1 Various cross-linguistic studies comparing the performance of dyslexic learners in different languages have been carried out. Find studies that dealt with developmental dyslexia in the following languages and make a summary of the findings.

English	German	French	Dutch
Slovak	Czech	Finnish	Russian
Japanese	Chinese	Hungarian	Polish

Task 2 In pairs, discuss the differences between Slovak and English regarding phonology, syntax, morphology and orthography. Discuss how learning to read in Slovak differs from learning to read in English and how it can affect the reading problems Slovak learners might have when learning to read in English.

Task 3 Look at the following words in Slovak. Which words do you think dyslexic learners will have problems with and explain why. Then suggest a strategy for making these words easier for them to learn.

SEN, LES, BOX, OTÁZKA, VRHNÚŤ, DOM, BABKA, IM, SNEH, PES, SITO, OBRAZ, POT, MED, HROBKA, PREHLIADKA, HOP, INÁ, ZÁHRADKA, SĽUB, CHLIEB, DAR, BIČ

Task 4 Look at the following English words. Which words do you think dyslexic learners will have problems with and explain why. Then suggest a strategy for making these words easier for them to learn.

HAT, CUP, LICK, SOFT, LEG, FUN, RABBIT, UMBRELLA, DOG, CLOCK, MEAL, SNAIL, JUMPER, PET, CROAK, PIE, STORM, BIG, FEET, RING, DRIVE, TEN, MOON, STITCH, BUNCH, SHIP, THREE, BIN, SQUIRREL, CLOUD, OIL, PUT, VALUE, HER, ARM, BED

Task 5 Look at the following set of words that are similar in Slovak and English regarding their structure and the performance of a dyslexic learner when writing them during dictation exercises. Correct the mistakes of the dyslexic learner (try to guess which words they were trying to write) and explain why they made such mistakes. The incorrect words are underlined.

Slovak dictation (as written by a dyslexic learner):

cap, cent, city, mami, to, kat, mal, hat, buk, kuk, ruch, som, cár, do, rum, lampa, mi, dar, buch, brodit, loviť, jún, Júl, just, komár, tip, linka, mile, Nina, Timea, mak, same, tak, lak, mysi, nos, cit

English dictation (as written by a dyslexic learner):

kep, sand, sitý, many, tu, ket, džem, man, hat, bat, dog, muč, san, cav, do, run, lamp, my, dad, Bus, brovr, love, žús, džamp, džast, came, tajp, liam, smiajl, nine, time, make, sajm, take, lake, ez, nose

Note: The learner also heard the words used in the sentences, so they were supposed to distinguish between Sg and Pl forms. The learner was in the 5th grade of elementary school.

Task 6 Try to summarize what the dyslexic learner from task 5 had problems with in Slovak and English spelling and suggest strategies you would apply to help her learn the spelling of the types of words she had problems with. Do not forget to apply the multisensory approach.

Terminology to remember

first language	*The language people acquire as the first one, as their mother tongue. Krashen (1982 :10) defines this language acquisition as a subconscious process; language acquirers are not usually aware of the fact that they are acquiring language, but are only aware of the fact that they are using the language for communication.*
foreign language	*A foreign language is also acquired after the first language; however, it is one a person voluntarily chooses. It is not a vital means of communication with other people living in their homeland or a country they moved to (Eddy, 2011: 12)*
The Hypothesis of Granularity and Transparency	*This hypothesis says that "orthographies can be described in two dimensions: 'transparency' and 'granularity' and argues that: (1) any orthography, where the print-to-sound translation is one-to-one or transparent will not produce a high incidence of phonological dyslexia regardless of the level of translation, i.e. phoneme, syllable, character, etc. This is the 'transparency' dimension, and (2) even when this relationship is opaque and not one-to-one, any orthography whose smallest orthographic unit representing sound is coarse, i.e. a whole character or whole word, will not produce a high incidence of phonological dyslexia. This is the 'granularity' dimension (Wydell, Butterworth, 1999 :280)"*
Modern Language Aptitude Test	*It is "a well-known, commercially available assessment instrument that measures a person's probable ability to learn a foreign language (Stansfield, 2004)"*
second language	*It is a language two that is studied after the first language has been acquired to some level and is usually acquired in the environment where it is actually spoken on an everyday basis by a certain group of the population (Eddy, 2011: 12).*

4 The multisensory approach and dyslexia

4.1 Defining multisensory teaching and learning

According to International Dyslexia Association (online), **multisensory teaching** is an important aspect of instruction for dyslexic students that is used by clinically trained teachers. Effective instruction for students with dyslexia is also explicit, direct, cumulative, intensive, and focused on the structure of language. **Multisensory learning** involves **the simultaneous use of visual, auditory, and kinaesthetic-tactile pathways to enhance memory and learning of written language**. Links are consistently made between the visual (language we see), auditory (language we hear), and kinaesthetic-tactile (language symbols we feel) pathways in learning to read and spell.

In line with the whole brain learning theory, all brain functions are interconnected (Başar, 2006). We remember how to do things best when the directions we are given engage multiple senses. Shams & Seitz (2008: 411) claim that *"the human brain has evolved to learn and operate in natural environments in which behaviour is often guided by information integrated across multiple sensory modalities. Multisensory interactions are ubiquitous in the nervous system and occur at early stages of perceptual processing."* The authors point out that multisensory training can enhance learning. Among other benefits, multisensory training can engage individuals with different learning styles, such as 'visual learners' and 'auditory learners'. There has been considerable doubt and discredit regarding the modified Cone of Experience designed by Edgar Dale in 1969, which was supposed to be a metaphor not a set of facts. However, according to well-known saying, people remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what they write and say and 90% of what they say as they do, which confirms that learning mechanisms operate optimally and more effectively under multisensory conditions.

Shams & Seitz (2008) note that Montessori started the multisensory learning movement approximately ninety years ago. Most subject areas in a Montessori school use a mixture of visual, auditory, tactile and kinaesthetic approaches. Over the last 15 years, several modern language instruction techniques have coalesced into a method called **Multisensory Structural Language Education**, which uses visual, auditory, tactile-kinaesthetic and articulatory modalities for

teaching. The authors also acknowledge the principle of **'dual coding'** according to which information entering the system through multiple processing channels helps circumvent the limited processing capabilities of each individual channel and enables greater total information to be processed when spread among multiple senses. Related research indicates that multimodal processing reduces cognitive load because information from different modalities can be more easily chunked into short-term memory and used to build long term representations.

The benefits of multisensory learning have been verified by contemporary research in cognitive science (Smith et al., 2018; The American Institute for Research; Minnesota Literacy Council, 2015) and research findings can be summarized as follows:

1. a study using fMRI technology, which measures brain activity by detecting changes in blood flow, found that children with the strongest literacy skills had more interactivity between different regions in their brain; this suggests that reading is a whole-brain skill and that future developments in literacy instruction should use a multisensory approach;
2. connecting print letters with the oral alphabet is an emergent literacy skill that multisensory learning can help teach – multisensory activities can teach students to associate letters or words with sounds faster; using multimedia activities is a great way to help students reach their reading potential;
3. for older grades, multisensory activities can also help teach more complex reading skills like critical thinking or advanced reading comprehension (e.g., taking turns reading pages from a novel or textbook aloud as a class to engage auditory and visual senses).

To conclude, different students respond to different activities differently. Thus, multisensory learning , i.e. paying attention to what is or is not working for particular learners and trying to find an activity that clicks for those who struggle.

4.2 Multisensory strategies and Multiple Intelligences

According to Birsh et al. (2005: 2), "*the term* **multisensory strategies** *means the use of direct instructional strategies involving visual, auditory, and tactile-kinaesthetic sensory systems to learn the phonological, morphemic, semantic, and syntactic layers of language along with the articulatory-motor aspects of language. Listening, speaking, reading, and writing are directly involved while the student sees, hears, says, and writes during brief and varied lesson routines."*

It is important to emphasize that the strategies behind multisensory learning also correspond to **Gardner's theory of multiple intelligences (MI)**. This well-known **pluralistic theory**, which was developed by Harvard professor and developmental psychologist Dr. Howard Gardner in the late 1970s and early 1980s, asserts that individuals possess eight or more relatively autonomous intelligences, and they draw on these intelligences in order to solve problems and perform tasks that are relevant to the societies in which they live. According to Gardner & Hatch (1989: 4), *"even 4- and 5-year-old children exhibit distinctive profiles of strength and weakness. Moreover, measures of the various intelligences are largely independent and tap abilities other than those measured by standard intelligence tests."* Therefore, Gardner's theory proposes that people can have proficiencies in different kinds of intelligences.

Davis et al. (2011, p.488) summarize these eight intelligences as follows:

- **Linguistic intelligence**: an ability to analyse information and create products involving oral and written language such as speeches, books, and memos;
- **Logical-mathematical intelligence**: an ability to develop equations and proofs, make calculations, and solve abstract problems;
- **Spatial intelligence**: an ability to recognize and manipulate large-scale and fine-grained spatial images;
- **Musical intelligence**: an ability to produce, remember, and make meaning of different patterns of sound;
- **Naturalist**: an ability to identify and distinguish among different types of plants, animals, and weather formations that are found in the natural world;
- **Bodily-kinaesthetic intelligence**: an ability to use one's own body to create products or solve problems;
- **Interpersonal intelligence**: an ability to recognize and understand other people's moods, desires, motivations, and intentions;
- **Intrapersonal intelligence**: an ability to recognize and understand one's own moods, desires, motivations, and intentions.

Davis et al. (2011) point out that MI theory asserts that individuals who demonstrate a particular aptitude in one intelligence will not necessarily demonstrate a comparable aptitude in another intelligence. MI theory perceives intelligence as a combination of heritable potential and skills that can be developed in diverse ways through relevant experiences. As a pluralistic theory,

the fundamental assertion of MI theory is that individuals demonstrate variation in their levels of strength and weakness across the intelligences. Unfortunately, this variation does not mean that every individual will necessarily demonstrate superior aptitude in one or more of the intelligences. Implementing MI ideas within and outside formal educational settings holds great promise. In particular, new digital media and virtual realities offer numerous ways in which learners can master required knowledge and skills. Although MI ideas were initially introduced in the United States and the first MI-inspired experiments took place there, in recent decades, MI ideas and practices have spread to numerous countries and regions. Davis et al. (2011: 499) conclude, *"whether or not explicitly recognized as such, MI ideas are likely to endure within the worlds of education, business, and daily practice – like the terms emotional intelligence and social intelligence they are already becoming part of the conventional wisdom."*

4.3 Teaching dyslexic learners utilizing multisensory teaching

According to the International Dyslexia Association (online), dyslexic learners need to be taught slowly and thoroughly, i.e. teaching the basic elements of the language, the sounds and the letters which represent them and ways to put them together and take them apart, they must have lots of practice in making their writing hands, eyes, ears, and voices work together for the conscious organization and retention of their learning.

Teachers who use this approach help students perceive speech sounds in words (phonemes) by looking in the mirror when they speak or exaggerating the movements of their mouths. Students learn to link speech sounds (phonemes) to letters or letter patterns by saying the sounds for the letters they see and writing the letters for the sounds they hear. As students learn a new letter or pattern (*such as **th** in English*), they may repeat 5 to 7 words that are dictated by the teacher and contain the sound of the new letter or pattern; the students discover the sound that is the same in all the words. Next, they may look at the words written on a piece of paper or the board and discover the new letter or pattern. Finally, they carefully trace, copy, and write the letter(s) while saying the corresponding sound. The sound may be dictated by the teacher, and the letter name(s) given by the student. Students then read and spell words, phrases, and sentences using these patterns to build their reading fluency.

The principle of combining movement with speech and reading is applied at other levels of language learning as well. Students may learn hand gestures to help them memorize the definition of a noun. Students may manipulate word cards to create sentences or classify the words in sentences by physically moving them into categories. They might move sentences around to make paragraphs. The elements of a story could be taught with reference to a three-dimensional, tactile aid.

Since dyslexic learners often exhibit weaknesses in underlying language skills involving speech sound (phonological) and print (orthographic) processing and in building brain pathways that connect speech with print, it is advisable to incorporate the body, and/or movement in order to support language comprehension and production. Moreover, it is advisable to use multiple intelligences in the classroom by tying linking lesson plans to at least two different types of multiple intelligences and sensory strategies (e.g. teaching students a song about the alphabet).

4.4 Principles of multisensory instruction

According to Birsch et al. (2005), reading disability has far-reaching consequences, which is why teachers must be prepared to intervene early and intensively. Pre- and in-service teachers must be prepared to work directly with children with reading, writing, and spelling disabilities who may also have co-occurring difficulties, such as difficulties with arithmetic calculation. The authors emphasize that in order to minimize reading failure, classroom reading approaches must include systematic, explicit instruction in **phonemic awareness** (orally identifying and manipulating syllables and speech sounds); particular attention to **letter – sound knowledge** (phonics); **spelling integrated with reading**; **fluency** (developing speed and automaticity in accurate letter, word, and text reading); **vocabulary building**; and **text comprehension strategies**. If such classroom programs prove to be insufficient for students with dyslexia, they will need a **Multisensory Structured Literacy (MSL) program** which incorporates systematic, cumulative, explicit, and sequential approaches taught by teachers trained in language structure at the levels of sounds, syllables, meaningful parts of words, sentence structure, and paragraph and discourse organization.

According to McIntyre & Pickering (1995), **the principles of instruction** are as follows:

- **Simultaneous, multisensory (VAKT)** – teaching is done using all learning pathways in the brain (visual, auditory, kinaesthetic, tactile) simultaneously in order to enhance memory and learning.
- **Systematic and cumulative –** multisensory language instruction requires that the organization of material follow the logical order of the language. The sequence must begin with the easiest and most basic elements and progress methodically to more difficult material. Each step must also be based on those [elements] already learned. Concepts must be systematically reviewed to strengthen memory.
- **Direct instruction** – the inferential learning of any concept cannot be taken for granted. Multisensory language instruction requires the direct teaching of all concepts with [continual] student – teacher interaction.
- **Diagnostic teaching to automaticity** – the teacher must be adept at prescriptive or individualized teaching. The teaching plan is based on a careful and [continual] assessment of the individual's needs. The content presented must be mastered to the degree of automaticity.
- **Synthetic and analytic instruction** – multisensory structured language programs include both synthetic and analytic instruction. Synthetic instruction presents the parts of the language and then teaches how they work together to form a whole. Analytic instruction presents the whole and teaches how this can be broken down into its component parts.
- **Comprehensive and Inclusive** – all levels of language are addressed, often in parallel, including sounds (phonemes), symbols (graphemes), meaningful word parts (morphemes), word and phrase meanings (semantics), sentences (syntax), longer passages (discourse), and the social uses of language (pragmatics).

4.5 Orton-Gillingham Approach

Utilizing a multisensory approach involves the learning of alphabetic patterns and words with the engagement of all learning modalities. One of the best known approaches is the **Orton-Gillingham Approach**, which is "*a direct, explicit, multisensory, structured, sequential, diagnostic, and prescriptive way to teach literacy when reading, writing, and spelling does not come easily to individuals, such as those with dyslexia. It is most properly understood and*

practiced as an approach, not a method, program, or system. In the hands of a well-trained and experienced instructor, it is a powerful tool of exceptional breadth, depth, and flexibility. " (Orton-Gillingham Academy, online).

The Approach is named after its authors, Samuel T. Orton and Anna Gillingham. **Samuel Torrey Orton (1879-1948)** was a neuropsychiatrist and pathologist. He was a pioneer in focusing attention on reading failure and related language processing difficulties. He brought together neuroscientific information and principles of remediation. As early as 1925 he had identified the syndrome of dyslexia as an educational problem. **Anna Gillingham (1878-1963)** was a gifted educator and psychologist with a superb mastery of the language. Encouraged by Dr. Orton, she compiled and published instructional materials as early as the 1930s which provided the foundation for student instruction and teacher training in what became known as the Orton-Gillingham Approach. It is considered evidence-based reading instruction for dyslexia and is meant as a 1:1 or small group reading intervention instruction. The Orton-Gillingham Approach encourages a learner to learn the letter by seeing it, saying it out loud, sounding it out, and writing it to promote complete mastery.

The Orton-Gillingham teacher uses modelling, student interaction, and feedback when delivering an Orton-Gillingham lesson using a clear scope and sequence. Reading, writing, and spelling instruction are integrated within each **Orton-Gillingham lesson** (Richland, 2021).

The Principles of the Orton-Gillingham Approach (Richland, 2021)

- **Structured** – every lesson in Orton-Gillingham is organized around a consistent set of strategies, activities, and patterns. The student always knows what to expect throughout each lesson. Students easily move from activity to activity since they are familiar with the routine and this creates an anxiety free environment for both the student and the teacher.
- **Sequential –** each skill is taught in a logical order or sequence. The student starts out learning simple word patterns (consonant – vowel – consonant/CVC) and then progresses gradually to more difficult and complex ideas including vowel patterns, multisyllabic words, spelling rules, affixes, and morphemes. Because all the teaching skills are taught from the ground up, the student will never have any reading or spelling gaps in Orton-Gillingham method.
- **Cumulative –** each Orton-Gillingham lesson builds upon itself. The student is taught a skill and does not progress to the next skill until the current skill is mastered. As students learn

new material, they continue to review old material until it is stored in the student's long term memory.

- **Explicit –** the teacher is at the centre of instruction in an Orton-Gillingham lesson. The instructor teaches the student exactly what they need and never assumes or guesses what the student already knows. Orton-Gillingham features continuous student-teacher interaction in each lesson.
- **Multisensory –** the teacher uses the student's auditory, visual and tactile pathways. When learning the vowel 'a' for example, the student might first look at a picture of an APPLE, then close their eyes and listen to the sound, then trace the letter in the air while speaking aloud. This combination of listening, looking, and moving creates a lasting impression for the student.
- **Systematic Phonics –** systematic phonics are taught, beginning with the alphabetic principles in the initial stages of reading development and advancing to more complex principles as the students progress. Students learn that words are made up of individual speech sounds, and that the letters of written words graphically represent each of these speech sounds.

A Sample Lesson Plan Outline:

Visual drill (phonogram cards)	Using Phonogram Cards or Sound Cards, the learner is drilled with skills s/he has already learned; **Phonogram Drill Cards** are usually separated by colour (e.g., the vowels – green, the consonants – white, the suffixes – blue, etc.); before each new lesson, learners are required to review these phonogram cards; reviewing them over and over again helps them remember them over time
Introduce a new skill	Every new phonogram, sound, syllable type or spelling pattern will need explicit instruction and multisensory teaching methods to help the concepts "stick" (i.e. the students will see it (visual), hear it (auditory) and move with it (kinaesthetic); many Orton-Gillingham lessons have pictures or keywords to introduce a new sound or spelling

	rule; these pictures (called keyword pictures) help the learner remember a particular letter or sound relationship with a visual; learners are also asked to trace, skywrite, use arm tapping, write on their palms and paper, build words with letter tiles, write on textured material, and use other multisensory activities to help learn the new concept
Blending Drill	The learner practises reading nonsense words (which force the learner to use decoding and not memorization skills); the phonogram cards are separated into three piles on a table top; the vowels are placed in the middle of the pile; the learner points to each phonogram card from left to right and blends the sounds into a nonsense word; the teacher keeps flipping the cards from the different columns to make different combinations
Red words	Red words/sight words are those words that cannot be sounded out phonetically and do not follow any particular phonemic rule; these must be memorized; they are taught using multisensory techniques (arm tapping, finger sliding, and finger tracing)
Reading Words, Sentences, and Text	In each Orton-Gillingham lesson, learners are asked to begin reading **words**, then sentences and finally a decodable text: they are asked to underline, link, divide, and box letters and letter combinations, suffixes and prefixes; they will identify vowel sounds and letters and other concepts when reading and learning new words; learners are asked to read relatively **simple sentences** utilizing their newly learned concept; they might read these silently to themselves and then again aloud with the teacher; comprehension questions are also often used in this step; finally, learners are asked to read a **story or text**; the reading passages are always decodable and only contain sounds and concepts that the

	learner has already learned; semantics and vocabulary development are a continual process throughout the entire reading of the passage; learners are also asked to visualize, use prior knowledge, context clues and other reading comprehension strategies
Writing	Learners are asked to write sounds, words, and sentences that are dictated by the teacher in each Orton-Gillingham lesson; it typically begins with the teacher dictating a word and the learner repeating it; the learner then uses either finger tapping, sound segmenting, or palm writing while saying the word aloud; the learner will follow up by writing the words down on a sheet of paper and then reading the words back

Most Orton-Gillingham lessons also teach and practise:

a) **phonological awareness** activities throughout the entire program – these include activities with rhyming, syllable division, and sound segmentation;

b) **fluency drills** – to help the students practise newly learned Orton-Gillingham skills (e.g., students are given a fluency practice drill and with a marker across the first line, they read the words as quickly as they can; they do this with every line increasing their speed over time);

c) **games** – to reinforce the skills that the students are learning.

Answer the following questions:

1. Which sorts of sensory pathways does multisensory learning involve?
2. How general is the multisensory benefit to learning? Is it restricted to certain tasks, or is it a universal property of perceptual and cognitive learning?
3. What is the principal of dual coding? What are the benefits?
4. What are multisensory strategies?
5. What is the rationale behind a pluralistic Multiple Intelligences Theory? Why is it considered pluralistic?

6. Which of the following is involved in multisensory instruction?
    a) providing suitable challenges for all learners
    b) adopting functions to accommodate a range of learning styles
    c) using different types of materials and resources required by different types of learners
7. How would you briefly characterize the Orton-Gillingham Approach? What do you consider as the biggest benefit(s)? Why?
8. Work in groups of four. Prepare a project based on 10 research findings advocating the benefits of the Orton-Gillingham Approach utilized in groups of dyslexic learners.

Task 1 Go to https://personalitymax.com/personality-test/. Take a Free Personality Test aimed at Multiple Intelligences. Find out about your MI and share your ideas with the rest of class. Compare your findings and discuss their relevance to you. Do you agree that most of us are strong in three types of MI?

Task 2 Work in groups of three. Try to propose a list of 10 activities focused on teaching/learning English in which you integrate two different types of multiple intelligences and sensory strategies. Identify which MI are used.
Example: teaching students a song about the alphabet (linguistic and musical intelligences – auditory)

Task 3 Read the Methodology part of the thesis (2019) by Alexis C. Cassese-Pawlowski titled *Using multisensory instruction to support reading growth in a fifth grade general education classroom* that can be retrieved from:
https://rdw.rowan.edu/cgi/viewcontent.cgi?article=3662&context=etd

Answer the questions:

1. What was the goal of the research?
2. Briefly describe the research sample and procedure.
3. What were the research findings?
4. What do you consider as limits of the research?

Task 4 Watch the video "Red Words in Action!" that can be retrieved from: https://www.youtube.com/watch?v=ZJYHNjGaKYw&ab_channel=BSEBears

Answer the questions:

1. Which words are practised in the video?
2. How are the words taught and practised?
3. What are the benefits of this approach?

Task 5 Match the question with the correct answer.

1. Why does multisensory learning help you recall information?
2. What is typical of a multisensory learning environment?
3. What are learning preferences?
4. What is sensory integration?
5. What areas do multisensory learners demonstrate improvement in?

a) recall and problem solving

b) creates multiple points of access and associations or links in your brain

c) it has many things going on at once – it stimulates many senses

d) a process of organizing and using information provided from sensations coming from the body senses

e) study skills and most effective strategies to learning

Task 6 Read the research study (2020) by Yanilis Romero titled *Lazy or Dyslexic: A Multisensory Approach to Face English Language Learning Difficulties* which can be retrieved from: https://files.eric.ed.gov/fulltext/EJ1252542.pdf

Answer the questions:

1. What was the goal of the action research?
2. Briefly describe the research sample and procedure.
3. What were the research findings?
4. What do you consider as limits of the research?

Terminology to remember

fMRI technology	*Functional magnetic resonance imaging (fMRI) is a technique for measuring and mapping brain activity that is noninvasive and safe (Center for Functional MRI).*
multisensory learning	*Multisensory learning involves the use of visual, auditory, and kinesthetic-tactile pathways simultaneously to enhance memory and learning of written language (International dyslexia association).*
synthetic phonics	*Synthetic Phonics is a way of teaching children to read. It has been identified both here and overseas as the most successful approach to the teaching of reading and spelling. The 'synthetic' component reflects the practice of 'synthesising', or blending together. The 'phonic' part reflects the process of linking individual speech sounds (phonemes) to written symbols (graphemes). Essentially, when a child learns to read using Synthetic Phonics they learn to link letters to speech sounds and then blend these sounds together to read words. They also learn to separate (segment) words into their constituent sounds and link these sounds to letters in order to spell them (Dyslexia SPELD Foundation).*
the whole brain learning theory	*The theory stating that effective learning takes place if the whole brain is involved in learning (Boer, Steyn, Toit, 2001).*

5 Dyslexia and Teaching Vocabulary

5.1Dyslexia affecting vocabulary achievement

Based on the bulk of literature studied (Bailey, 2020; Van Witteloostuijn et al., 2012; Nijakowska et al., 2016; Orton Gillingham Online Academy, the Yale Centre for Dyslexia & Creativity, etc.) vocabulary development is a big challenge for dyslexic learners. It is a generally known fact that the extent of students' vocabulary relates strongly to their reading comprehension and overall academic success. Since dyslexic learners struggle with reading, i.e. they read less and comprehend less, their vocabulary cannot grow adequately. This has devastating consequences across the curriculum.

Complex words are challenging because they are difficult to pronounce. Dyslexic students may even know the written word when used in context or read aloud, but on a written word list it means nothing. Teachers often deliver vocabulary in unimaginative and problematic ways. However, there are many ways to supplement vocabulary instruction that will help every dyslexic child.

Regarding vocabulary achievement, dyslexic learners' difficulties are as follows:

1) **problems related to deep orthography –** dyslexic learners misspell words, they have problems with pronouncing words (e.g., *s**e**lary – salary, st**a**dy – study, sin**s**e – since, c**a**rage – courage, cl**i**ned – cleaned*)
2) **reversing the order of letters** (e.g., *th**ie**r – their, Duc**th** – Dutch*)
3) **insertion and omission of certain letters** (e.g., *slow**e**ly – slowly, pa**vm**ent – pavement, foo**th** – foot, **to**ught – thought, Aus**tia** – Austria*)
4) **confusion of similar words** (e.g., *waist – wrist, water – waiter – weather, quit – quiet – quite*)
5) **reduced phonological awareness,** i.e. awareness of sounds in words, rhymes, or sequence of sounds and syllables in words
6) **poorer capacity of phonological short term memory**
7) **memorisation of misspelled word forms**

5.2 Teaching English vocabulary to dyslexic learners

According to Bailey (2017) building reading vocabulary is a challenge for students with dyslexia who have a hard time learning new words in print and in word recognition. There is often a discrepancy between their spoken vocabulary, which may be strong, and their reading vocabulary. Typical vocabulary lessons may include writing a word repeatedly, sometimes 10 times, looking it up in a dictionary and writing it in a sentence. All of these passive approaches to vocabulary will not by themselves help students with dyslexia very much. Multisensory approaches to learning have been found to be effective in teaching children with dyslexia and there are many ways this can be applied to teaching.

Tips and suggestions for teaching vocabulary to students with dyslexia:

1) **Assign each student one or two vocabulary words.** Depending on the number of students in the class and the number of words, several children may have the same word. During class or for homework, students must come up with a way of presenting the word to the class. For example, a student could write a list of synonyms, draw a picture to represent the word, write a sentence using the word or write the word in different colours on a large paper. Each student comes up with their own way to explain and present the word to the class. All of the students with one word stand up and present their word, giving the class a multi-dimensional view of the word and its meaning.
2) **Begin with multisensory information about each word.** Use pictures or demonstrations to help the students see the meaning of a word as it is presented. Later, as the students are reading, they can recall the illustration or the demonstration to help remember what the word means.
3) **Create a word bank where words can have a permanent home in the classroom.** When words are seen often, students are more likely to remember them and use them in their writing and speech. You can also create customized flash cards for each student to practice vocabulary.
4) **Talk about synonyms and how these words are both the same and different than the vocabulary words.** For example, if your vocabulary word is terrified, a synonym might be frightened. Explain how terrified and frightened both mean being afraid of

something but that being terrified is being very frightened. Have students demonstrate the varying degrees of being scared to make the lesson more interactive.

5) **Play charades.** This is a great way to review vocabulary words. Write each word on a piece of paper and place them in a hat or jar. Each student draws one paper and acts out the word.
6) **Give points when a student uses a vocabulary word while talking.** You can also give points if a student notices someone, in or out of school, use a vocabulary word. If outside of class, the student must write down where and when they heard the word and who said it.
7) **Include vocabulary words in your classroom discussions.** If you keep a word bank in the classroom, continue to review it so you can use these words when teaching the whole class or when speaking individually with a student.
8) **Create a classroom story with the vocabulary words.** Write each word on a piece of paper and have each student pick out one word. Start a story off with one sentence and have students take turns adding a sentence to the story, using their vocabulary word.
9) **Have students choose vocabulary words.** When beginning a new story or book, have students glance through the story to find words they are unfamiliar with and write them down. Once you have collected the lists, you can compare to see which words turned up most frequently to create a custom vocabulary lesson for your class.

   Students will have more motivation to learn words if they help to pick them out. Use multisensory activities when learning new words. Have students write the word using sand, finger paint or pudding paint. Have them trace the word with their fingers, say the word out loud, listen as you say the word, draw a picture to represent the word and use it in a sentence. The more senses you include in your teaching and the more often you include and see vocabulary words, the more the students will remember the lesson.

5.3 Techniques for teaching and practicing English vocabulary

Based on the bulk of literature studied (Bailey, 2020; Van Witteloostuijn et al., 2012; Nijakowska et al., 2016; Orton Gillingham Online Academy, the Yale Centre for Dyslexia & Creativity, Dyslexia Help. University of Michigan, etc.), it is important to incorporate both

incidental teaching and explicit instruction of vocabulary into every lesson or activity with dyslexic learners. Teaching vocabulary should be paired with phonics and phonological processing activities. In particular, it is helpful to teach learners to hear every sound in the word (through segmenting and blending tasks) and how to recognize syllable types to pronounce a new word.

Teachers should ensure repeated exposure to vocabulary in different contexts since it increases word learning. Creating multiple exposures to words (encountering a word at least 12 times or more) will allow learners to increase their familiarity with it and aid in their comprehension. Placing posters around the classroom will help to expand learners' vocabulary since visual representations will make targeted vocabulary more salient. Utilising explicit teaching of new words and word-learning strategies is especially important for those learners who have not developed the decoding and comprehension skills necessary for wide reading. Colour coding, using rhymes, playing games, reading books aloud, visual aids, technological devices (e.g., electronic coding dictionaries), the Interactive Whiteboard as well as ICT offer effective ways to teach and practise vocabulary in a multisensory way.

It is crucial to be aware of the fact that an overall theme to building vocabulary is that context matters. Dyslexic learners understand and remember a new piece of information by relating it to larger and previously known ideas. In order for information to be understood and remembered, it needs to be attached to an idea. Thus, stories are wonderful sources for offering context that supports memory and meaning for all learners.

Appropriate techniques for teaching and practising vocabulary (Nijakowska et al., 2016; Dyslexia Help. University of Michigan, etc.)

- **Index and Flash cards** – these cards should incorporate the word, its definition, its use in a sentence, as well as antonyms, synonyms, and roots.
- **Mind maps** – the most central information should be placed centrally and more peripheral information on the periphery; it is important to place information on related topics next to each other since this is essential for planning discussions.
- **Boggle, Scrabble, Sudoku, Bingo, letter tracing on sand, magnetic letters, cross word puzzles, word scrambles, word searches** – for practising spelling.
- **Charades, Taboo, Pictionary, Pelmanism** – for guessing words.
- **Phonics tree –** the phonics approach allows the teacher to place emphasis on the sounds of the letters and to shed light on the lack of consistency between complex

grapheme-phoneme relations in the English language. The Phonics Tree is a playful activity in which every tree carries or represents a particular sound or a combination of sounds. The leaves of the trees are words, which, according to their spelling, are classified into different categories (e.g. ***i-e*** for 'bike', ***o-e*** for 'home' etc). Each category corresponds to a tree. Pictures are used to illustrate and reinforce the meaning of the words. Learners are given words (leaves) and asked to hang them on the 'correct' tree (Nijakowska et al., 2016, p. 97).

(Source: Nijakowska et al., 2016: 97)

- **Rhymes –** an effective mnemonic device; their use facilitates memorisation and retrieval of the relevant sounds, and of course they can be great fun and thus motivating for all learners (e.g. *Cheese and chips and tasty dips. Tasty dips with cheese and chips*.)

Lexical items at A1.1 – A2.1 levels that need special attention:

- ✓ **Names of the day –** the names of the day are very similar; it is not recommended to teach all of them at the same time (e.g., teach *Sunday* and *Saturday* in one lesson – the days of the weekend; *Monday*, the first day of the week, and *Friday*, the last day students go to school, in another lesson). It is also advisable to look for mnemonic devices (e.g., *Sunday* a sunny day, people are happy, because of the weekend). It is also a good idea to involve students' timetable in the practice. They can even make mind maps or posters about the activities they do on a particular day.

As with other problematic lexical items, it is always useful to play memory games, use digital voice recorders, speech-to-text software and songs.

- ✓ **Names of nationalities and countries –** the names of nationalities and countries are rather easy to confuse. It may be advisable to teach only 3 to 5 countries – nationality pairs (*English, England*, the country of the student, the name of the student's nationality, plus some more). It is also a good idea to teach the name of the chosen countries and nationalities in two separate lessons, and contrast them in the third one. If, for some reason, the students should study all country – nationality pairs, it is worth preparing a mind map about the names of nationalities ending with the same letters (e.g., *an:* Americ*an*, Austri*an*, German; *ish*: Span*ish*, Ir*ish*, Engl*ish*). It is also possible to come up with acronyms or other mnemonic devices to memorize the different endings.
- ✓ **Numbers –** it is definitely not recommended to teach all the numbers from *1* to *1000* at the same time. Moreover, special attention should be dedicated to the distinction between numbers ending in *"-teen"* and *"-ty"* (e.g, thir*teen* and thir*ty*). A possible mnemonic device is that in *"teen"* you have *ten*, so *thirteen* refers to *13* and not *30*. Another mnemonic device is that you have long */i:/* in *"teen"*, while you have a short */i/* in *"ty"*. It is also possible to point out that in *thirteen* the stress is on *"teen"*, while there is *no stress* on *"ty"*. One way to practise the distinction is to ask students to imagine an *18-year-old* girl and an *80-year-old* woman. Say some sentences and ask them to decide whether they are about the girl or the woman. When they hear the sentence they should say *"eighteen"* or *"eighty"*: (e.g., *She studies in high school. She has 4 grandchildren*.).

QUIZ

In some of the questions more than one correct answer is possible and in some of the questions you are asked to fill in the blanks or provide a short answer.

1. Difficulties that dyslexic learners face in learning vocabulary include:
   a) confusing and misspelling similar words

b) memorizing the pronunciation of words

c) both a) and b)

d) only a)

2. When teaching vocabulary to dyslexic learners, teachers are advised to:

a) introduce words that are morphologically similar together

b) limit the number of new items in one lesson

c) focus on the pronunciation and meaning of the words

d) all of the above

3. When teaching vocabulary to dyslexic learners, teachers should place emphasis on:

a) the teaching of individual lexical items

b) the teaching of small lexical chunks

c) both a) and b)

d) neither a) nor b)

4. Creating a "mental file cabinet" allows dyslexic learners to …… .

5. It is important to ask a student to speak in …… and assist when necessary.

6. Characterize the approach which should be utilized when teaching vocabulary to dyslexic learners.

7. What are the causes of vocabulary learning difficulties in dyslexic learners?

a) They have poor phonological awareness.

b) They have a poorer phonological short term memory capacity.

c) They have difficulty understanding the meaning of words.

d) They have many strategies for memorizing words.

8. Colour coding, rhymes, games, reading aloud etc. offer effective ways to teach and practise vocabulary in a …… .

9. Teaching vocabulary should be paired with ……. and …… processing activities because it is helpful to teach learners to hear every sound in the word (through segmenting and blending tasks) and how to recognize syllable types to pronounce a new word.

10. Repeated exposure to vocabulary in different ……. increases word learning.

Task 1 Work in groups of four. Choose particular pages of a unit from a course book aimed at introducing and practising new vocabulary. Identify words and structures that may be problematic for dyslexic learners. List ideas for teaching these items effectively.

Task 2 Read the Methodology part of the article (2021) by Chathurika Senanayake titled *Teaching English Vocabulary As A Second Language To Dyslexic Students: WITH SPECIAL REFERENECE TO MULTI-SENSORY PEDAGOGY* which can be retrieved from: https://www.researchgate.net/publication/350063172_Teaching_English_Vocabulary_As_A_Second_Language_To_Dyslexic_Students_WITH_SPECIAL_REFERENECE_TO_MULTI-SENSORY_PEDAGOGY/link/604f26ef458515e529ac01a7/download

Answer the questions:

1. What was the goal of the research?
2. Briefly describe the research sample and procedure.
3. What were the research findings?
4. What do you consider as the limits of the research?
5. How could similar research be carried out in the Slovak system of education?

Task 3 Watch the video *"Games to help the dyslexic learner".* The video can be retrieved from: https://www.youtube.com/watch?v=IoOGyHKm5XY

Answer the questions:

1. Which games are used in the video?
2. Which words are used and how are they taught and practised?
3. What are the benefits of the games?

Terminology to remember:

boggle	*Boggle is a game where the players link at least three letters with line to make a word. This activity helps students improve their vocabulary, especially to improve their awareness in word spelling and also help them to memorize the word they already linked (Fauziah, Apriliaswati, Susilawati, 2018)*

complex word	*A word consisting of a main part and one or more other parts (https://dictionary.cambridge.org/dictionary/english/complex-word)*
orthographic depth	*Orthographic depth is a conglomerate of two separate constructs: the complexity of print-to-speech correspondences and the unpredictability of the derivation of the pronunciations of words on the basis of their orthography (Schmalz;Marinus;Coltheart; Castles; 2015).*
scrabble	*Scrabble is a simple game that can help the teacher in teaching vocabulary especially in memorizing, spelling and understanding the meaning of the words. Scrabble is also a board game, players draw letter tiles and take turns to make interlocking words like a crossword (Lidiasari, Supardi, 2017).*

5.4 Days of the week

Level: A1.1	**Class size:** pair work/individual work
Language focus: days of the week	**Aims:** to practice vocabulary (days of the week)
Preparation time: 5 minutes	**Activity time:** 12 minutes
Topic: What day is it today?	**Unit in the textbook**: Unit 2, Project 1
Material: coloured cards, 5.4 worksheet (Appendix 4)	

Before class

Copy and cut out ready-made coloured cards and a set of sentences for each pair from worksheet 5.4.

In class

1. Give each pair of learners a set of coloured cards. The central word on the card is DAY. The parts of words on the other cards are: MON, TUES, WEDNES, THURS, FRI, SATUR, SUN.
2. Ask the learners to put the central card (DAY) on the right side of the desk and the other cards on the left side of the desk.
3. Ask the learners to match the cards in the order of the days of the week, starting with MONDAY.

4. Ask the learners to create sentences by filling in the missing days of the week according to the numbers.

Notes for the teacher

The activity applies color-coding for distinguishing the days of the week. The central word DAY is placed on the right side of the desk in order to show that the word for each day of the week includes this root word. Colour stimulation (e.g. Sunday – yellow colour symbolizing the sun) is also applied. In the practice part (Task: *Fill in the missing days of the week*) there is a colour correspondence between the number of the day in the order of the seven days of the week so that dyslexic learners can create a better association. This activity is aimed at practicing the days of the week. Noticing and introducing parts of the lesson should be done in previous lessons (for more information, see the theoretical part of this chapter). This activity with cards helps to enhance learning and remembering of the days of the week. TPR activities, such as linking the days of the week with different physical movements could also be effective.

5.5 My family – a family tree

Level: A1.1	**Class size:** individual work
Language focus: family members	**Aims:** to practice vocabulary (family members)
Preparation time: 5 minutes	**Activity time:** 12 minutes
Topic: Family tree	**Unit in the textbook**: Unit 2, Project 1
Material: 5.5 coloured worksheets (Appendix 4)	

Before class

Prepare 5.5 coloured worksheet (a general framework – family tree) for each learner.

In class

1. Give each learner a worksheet with a family tree framework.
2. Ask each learner to fill in the first names of the family members from their own family (e.g. *Zuzana, Leonard, Samuel, Filip, Michaela* etc.).
3. Ask learners to note the different colours of particular parts of the words (*-er* ending and the word *grand*).

4. Ask learners to start describing their family members as in the box.
5. Alternatively, learners can ask each other questions: *What's your father's first name? How old is your brother?*

Notes for the teacher

The activity applies color-coding and a schematic framework for distinguishing and identifying/naming family members. The ending *(-er)* of particular words as well as the word *grand* representing ancestors are coloured *green.* Colour stimulation (e.g. grey – mother/father) is also applied. The most important aspect is personalization by which the learners fill in and remember the names and ages of their own family members. This activity is also aimed at practicing vocabulary (family members) as well as numbers determining the age of particular family members (numbers were introduced in Unit 1C, pp. 8-13). The teacher should also consider adding more new words, such as: *stepmother, stepfather, stepsister, stepbrother* etc. This activity helps to enhance learning and remembering words identifying family members. It can also help visual learners remember vocabulary better.

5.6 Colours

Level: A1.1	**Class size:** pair work
Language focus: colours	**Aims:** to practice vocabulary (colours describing objects)
Preparation time: 5 minutes	**Activity time:** 10 – 12 minutes
Topic: Colours	**Unit in the textbook**: Unit 3, Project 1
Material: coloured cards, 5.6 worksheet (Appendix 4)	

Before class

Prepare and cut out a set of coloured cards for pairs of learners.

In class

1. Give each pair of learners a set of coloured cards (8 colours, 8 cards). Show the card and say the word. Ask the learners to do the same.
2. Ask the learners in pairs to look at task No. 5 (p.31/ picture A/B). One learner looks at picture A, the other looks at picture B. They start describing the picture following the cues

(*a skateboard, a T-shirt, a watch, a mobile, a radio*) using the coloured cards and the following sentence structure. Ask them to fill in the sentences with information from the cards

An example sentence:

Mikey has got a _____ cap in picture A, but he has got a _____ in picture B.

Students fill in the sentence in the following way:

Mikey has got a blue cap in picture A, but he has got a yellow cap in picture B.

Notes for the teacher

Coloured card stimulation is applied which enhances learners' ability to distinguish and describe various objects. This activity is aimed at practicing vocabulary – colours (adjectives) and objects (nouns) as well as practicing the position of adjectives in a sentence (putting adjectives before nouns). Note: pink is not represented in this unit, but as girls at this age prefer wearing pink clothes, it is practical to include it in the lesson.

5.7 A Mindmap – Describing body parts (people, animals)

Level: A1.1	**Class size:** pair work
Language focus: body parts (people, animals)	**Aims:** to practice vocabulary
Preparation time: 5 minutes	**Activity time:** 15 minutes
Topic: Science: we are animals, too	**Unit in the textbook**: Unit 3, Project 1
Material: a basic framework worksheet 5.7 (Appendix 4)	

Before class

Teacher prepares a basic framework worksheet (a sample mindmap) for pairs of learners.

In class

1. Give each pair a basic framework worksheet.
2. Ask them to have a look at two boxes (*Body parts and Describing body parts*) in order to revise the meaning of particular words.

3. Ask them to divide the words from box No. 1 appropriately, i.e. words describing body parts (people and animals). Then, ask them to look at box No.2 and decide which adjectives can be used to describe particular body parts (people and animals).
4. They should use different colours and shapes in order to create their own mind maps.

Notes for the teacher

The activity applies a mind map as an appropriate technique for teaching and practicing vocabulary (for more information, see the theoretical part of this chapter). This activity is aimed at revising body parts and their description. Noticing and introducing parts of the lesson should be done in previous lessons. This activity helps learners to remember body parts and their appropriate description. As a follow-up activity, the teacher might ask the learners to draw an imaginary animal (monster, alien etc.) and describe its body.

6 Dyslexia and Teaching Grammar

6.1 Dyslexia affecting grammar achievement

As Van Witteloostuijn et al. (2012) claim, developmental dyslexia (dyslexia) is a learning disability characterized by **impaired reading and spelling** in spite of normal intelligence and educational opportunities. Over time, researchers have uncovered **impairments in cognitive abilities** other than literacy and phonological skills. In addition to deficiencies in literacy skills and phonology, individuals with dyslexia have been shown to experience delays in oral language development in early childhood.

Based on the bulk of literature studied (Van Witteloostuijn et al., 2012; Nijakowska et al., 2016; Orton Gillingham Online Academy, etc.) **grammar learning** is one more hurdle for a student with dyslexia, since using proper grammar requires both decoding and encoding skills – two of the biggest challenges for students with reading and writing difficulties. Regarding grammar, the rules of mechanics can be especially difficult for dyslexic students to memorize and use automatically, namely:

- ✓ **parts of speech and how to use them**
- ✓ **proper use of pronouns**
- ✓ **subject/verb agreement**
- ✓ **verb tenses**
- ✓ **subjunctive mood**
- ✓ **punctuation and capitalization**
- ✓ **word order**
- ✓ **contractions**

According to Van Witteloostuijn et al. (2012) and based on studies of spoken language skills, young dyslexic children produce **shorter sentences of lower syntactic complexity** than low-risk children. Furthermore, when school-aged children with dyslexia are compared to their peers, they are found to achieve **lower scores on standardized tests of grammar.** Even though overt morphological and grammatical difficulties (in oral language) appear to attenuate with age, some studies suggest that such difficulties may persist. Nijakowska et al. (2016) add that dyslexic learners have problems with **understanding grammar concepts, memorizing grammar rules,**

types and formats of grammar exercises. The causes are attributed to **problems with serial processing and implicit learning**. Nicolson and Fawcett (2007) believe that a procedural learning impairment underlies multisystem motor and cognitive-linguistic deficits experienced by a variety of populations and has been used as a possible explanation for the co-occurrence of these deficits in children with developmental language disorder (DLD) and dyslexia. Van Witteloostuijn et al. (2012) report that **statistical learning** (i.e. detecting distributional and sequential patterns in linguistic input) has been argued to support the acquisition of **syntactic categories** as well as **the rules of morphology and syntax**. For example, the acquisition of patterns such as the relationship between auxiliaries and inflections on the verb (e.g., the boy *is* runn*ing*, where the intervening verb may vary), may be supported by a mechanism that tracks co-occurrence statistics. The hypothesized relationship between statistical learning and grammatical acquisition is supported by research (Van Witteloostuijn et al., 2012) that has shown that performance on statistical learning tasks is related to grammatical abilities in typically developing children. Studies have established such relationships between statistical learning and the comprehension of complex syntactical structures such as the passive voice and relative clauses.

6.2 Teaching English grammar to dyslexic learners

According to the Orton Gillingham Online Academy (online), teaching grammar to students with dyslexia should include a structured, systematic and sequential approach, similar to the approach we use to teach the logical connections between the sounds and symbols in the English language. Moreover, many dyslexic learners are also dysgraphic and thus handwriting represents a constant challenge.

Although it might seem that presenting grammar to dyslexic learners in a strictly structured methodical manner (e.g., one important rule at a time) could discourage or destroy creativity, it is important to point out that until learners with dyslexia are able to form sentences with accuracy and automaticity, they will not be able to display creativity in written expression. Therefore, teaching one part of speech at a time (beginning with nouns), while applying the same structured, sequential, and cumulative nature will allow students to master various grammatical concepts and create a "mental file cabinet" for all of their learned materials. When teaching grammar to dyslexic learners, it is essential that they connect the new concepts with previously mastered concepts.

The order of presentation of grammatical concepts recommended by the Orton Gillingham Academy:

1) **Nouns –** persons, places, things and ideas (a magazine is a wonderful resource a student can use to begin naming nouns); e.g. ask the students to categorize nouns, have an assortment of noun cards and have the student sort and categorize the nouns.
2) **Pronouns –** pronouns take the place of nouns (**PRO** = for, pronouns are **FOR** nouns).
3) **Simple Plurals –** the spelling rule of simply adding /s/ to a word.
4) **Action Verbs –** a word that shows action, e.g. *What is the noun **DOING*?** Create a word list using magazines or books. Use noun and verb word lists to create sentences; make this an oral task initially.
5) **A student can then draw pictures that illustrate their new sentences.** **NOTE*: Since drawing is a laborious task for students with fine motor deficits, this activity may be skipped; perhaps mental imagery would be more effective.
6) **Sentences –** every sentence contains a noun and a verb that expresses a complete thought. It is important to ask students to speak in complete sentences and assist when necessary; make sure that they have ample practice reading two-word sentences at this point. When performing sentence analysis, the students will label the parts of speech within a sentence. When looking at functional analysis, they will identify the purpose in a sentence. Finally, sentence diagrams are a wonderful visual aid to enhance understanding.
7) **Adjectives –** adjectives paint images in our minds that describe the nouns in sentences. When teaching adjectives, ask students to first write down their thoughts in simple form with words they are able to spell. They can then go back to the sentence and add adjectives to enhance creativity.
8) **Adverbs –** words that describe or modify verbs.
9) **Prepositions/Prepositional Phrases –** a preposition shows the following relationships among other words in a sentence: **direction "to"** (*"He walked to the store."*); **time "at, on, in"** (*"He will arrive at 2 o'clock."*); **agent "with"** (*"He chopped the wood with an axe."*); **place** (between, near, across); **manner "by"** (*"By going the short route, you will save time."*); **measure "for"** (*"She ran for two miles."*)
10) **Interjections, Conjunctions, Articles**

Generally, when teaching grammar to dyslexic learners, it is important to understand that they need to be taught according to **the approach** that is characterized as follows:

from **PARTS** to the **WHOLE**
from **SIMPLE/CONCRETE** to **ABSTRACT/COMPLEX**

As mentioned above, all brain pathways should be accessed simultaneously. Furthermore, constant review and revision of the materials is important while adding one new concept at a time. This helps the dyslexic learner to see how the new concept fits in with the old concept to understand the big picture.

6.3 Techniques for teaching English grammar

According to Kormos and Smith (2012), the main differences between teaching languages to learners with, e.g., dyslexia and students with no learning difficulties lies in the importance of the explicit teaching of linguistic structures, slower pace and frequent revision. They specifically promote the use of visual aids, technological devices, the Interactive Whiteboard as well as ICT, as they offer effective ways to teach grammar items in a multisensory way.

Appropriate techniques for teaching grammar (Nijakowska et al., 2016)

1) **Mindmaps –** e.g., *mindmaps* about *tenses*; *Wh-questions mindmaps* – it is advisable not to teach more than *one or two Wh- questions together*, and if a student confuses them often it is important to practise them separately; mindmaps with the *Wh-question* can be in the centre and some answers in the different branches; it is a good idea to personalize the answers and use words which are relevant for the students; if mindmaps are prepared for the different *Wh-questions,* we can use them for a simple revision activity.
2) **Digital voice recorder –** e.g., we can use a digital voice recorder and record the *Wh-questions* followed by the equivalent word or structure in the students' first language; we can record sample sentences using different *pronouns,* different *tenses,* etc.
3) **Speech to text software –** we can use some speech to text software and convert sample sentences (e.g., *Wh-questions,* sentences with *pronouns,* different *tenses*) into an audio file.

4) **Songs –** we can look for songs containing *particular grammar structures* (*e.g., tenses, modal verbs, wish clauses, conditionals, passives,* etc.) or we can use a karaoke program for practice.
5) **Mnemonic devices –** e.g., instead of correcting students when they leave out the *do* or the *–s* we can use mnemonic devices or flashcards with *do* and *–s* on them to remind them, thereby encouraging self-correction; for the question word *"who"*, we can draw eyes and a mouth for the letter o, which reminds the student that the question word *"who"* refers to human beings.

6) **Crazy stories –** we can write "crazy" stories with the relevant *question words, particular tenses,* etc.
7) **Memory game with word cards** – we can prepare word cards (with e.*g. question words* in English and in the mother tongue) and play memory games; or we can prepare word cards (e.g., *with pronouns in English and in the mother tongue*) and play memory games with them – in this case it is important to practice with the card set for personal and possessive pronouns separately before contrasting them (the two types of word cards should be in different colours to facilitate distinction. Also, there should be clues for distinguishing the singular and plural forms of pronouns).
8) **Word cards** – **Sentence cards** – *word order* and *verb forms* can be practised with sentence cards. The teacher or the students prepare cards with the necessary elements on them, e.g. for the present simple: *I, you, my dog, dance, at the disco, -s, do, not*. Students manipulate the cards to create statements, negatives and questions.
9) **Tense cards** – you can prepare cards about each tense, e.g. put the visual formulas on the cards and some basic rules about when to use the tense. These cards can boost memorisation and retrieval and help with the revision of rules for the use of tenses. The cards can also be used for contrasting the two tenses. Students are given the cards and they have to decide which cards refer to Present Simple and which refer to Present Continuous. (It should be practised with a few cards at first; it is also possible to have different coloured cards for the tenses you want to contrast as a first step).

10) **Word cards in a digital format** – we can prepare word cards using quizlet: http://www.quizlet.com

11) **Explicit teaching** – it is essential that the students understand the distinction between, e.g. the *two types of pronouns (personal, possessive)*, it is advisable to discuss the distinction in the student's mother tongue, if possible. However, our main aim is not to teach the grammatical terminology such as possessive pronouns or personal pronouns to the students, but to make sure they understand the difference in meaning between *'I'* and *'my'*. Explaining this distinction is only advisable if you teach students over the age of 9.

It is a good idea to explicitly teach *the forms and rules of the tenses* using handouts and charts (first separately, then together in order to contrast them). It would also be beneficial if these tenses were explained in relation to the students' L1 and contrasted with the structures in their mother tongue.

12) **Teaching and practising in context** – we can use short activities where students have to identify or use, e.g. *the pronouns in context* by naming the objects on their desks (*I am*_____. *This is my pencil. This is my book*....etc.). Then move on to do the same with the desks of their peers or teacher.

13) **Colour-coding**

a) different colours should be used for *pronouns*, *auxiliaries* and *verbs*

I am reading a book.

I speak English.

He speaks English.

b) it is useful to have a visual "formula" as a reminder about, e.g. the *tense*

Visual formula Present Continuous:

_ _ _ING

Visual formula for Present Simple:

_ _ (I speak.) _ _s (He speaks.)

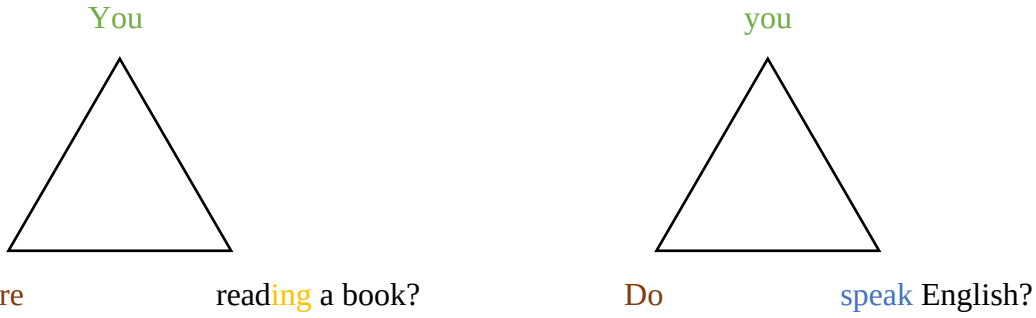
c) word order questions

Are you reading a book?

Do you speak English?

A good idea for helping to remember the word order of questions in Present Continuous and Present Simple is to draw a triangle. Tell the student that in order to form a correct

question you should have a word at every angle of the triangle. The pronoun refers to the person (or object) the sentence is about, so it is at the highest angle of the triangle. The auxiliary verb and the main verb are at the other angles.



In the Present Simple, it is also useful to call attention to the fact that sentences like *'You are at home.'* Behave differently than '*You like apples.'* When forming questions (and negatives).

It is important to be aware of the fact that the teacher's attitude to dyslexia influences the basic motivational conditions created in the language classroom i.e. a supportive classroom atmosphere and special attention to dyslexic learners as well as the teaching methods and assessment.

If teachers are unaware of the appropriate and convenient strategies for teaching grammar to dyslexic learners, neither the basic motivational conditions nor effective learning can be sustained. Moreover, the extent to which teachers are able to employ elements of motivational and appropriate teaching practice has an influence on dyslexic learners' self-confidence and language learning anxiety.

QUIZ

In some of the questions more than one answer is possible and in some of the questions you are asked to fill in the blanks or provide a short answer.

1. Difficulties that dyslexic learners face in learning grammar include:

e) understanding grammatical concepts

f) memorizing grammar rules

g) both a) and b)

h) none of the above

1. Statistical learning supports the acquisition of

e) syntactic categories

f) rules of morphology and syntax

g) both a) and b)

h) none of the above

2. Creating a "mental file cabinet" allows dyslexic learners to …… .

3. It is important to ask a student to speak in …… and assist when necessary.

4. Characterize the approach which should be utilized when teaching grammar to dyslexic learners.

5. Which of the following is recommended when teaching grammar to dyslexic learners?

e) adding one new grammar concept at a time

f) teaching grammar rules implicitly

g) using colour coding techniques

h) only a) and c)

6. When learning grammar, dyslexic learners encounter difficulties related to:

a) implicit teaching

b) word order rules

c) both a) and b)

d) none of the above

7. In order to enhance learners' grammar mastery, teachers should use:

a) mnemonic devices

b) mindmaps

c) tense cards

d) speech to text software

8. Useful approaches for teaching grammar to dyslexic learners include

a) explicit instruction

b) multisensory presentation and practice

c) revision

d) implicit teaching

9. Students are given …… and they have to decide which of them refer to Present Simple and which ones to Present Continuous.

Task 1 Work in groups of four. Choose the pages of a unit from a course book aimed at introducing and practising grammar. Identify grammatical structures which may be problematic for dyslexic learners. List ideas for teaching these items effectively.

Task 2 Read the Methodology part of the article (2016) by Tamas Kiss and Cherry Lin titled *Beliefs, Knowledge and Practices of Grammar Pedagogy: Teaching Dyslexic Learners* that can be retrieved from: https://repository.nie.edu.sg/bitstream/10497/18941/1/MAJER-12-1-37.pdf
Answer the questions:

1. What was the goal of the research?
2. Briefly describe the research sample and procedure.
3. What were the research findings?
4. What do you consider as the limitations of the research?
5. How could similar research be carried out in the Slovak system of education?

Task 3 Work in groups of three. Make up a Crazy story (give it a proper title) in which you introduce particular grammar structures or structures to dyslexic learners. Propose relevant and appropriate follow-up activities.

Terminology to remember

explicit language learning	*"Explicit language learning is necessarily a conscious process and is generally intentional as well (Ellis et al., 2009)."*
grammar	*"A grammar of a language describes the principles or rules governing the form and meaning of words, phrases, clauses and sentences (Huddleston, Pullum, (2008)."*
mindmap	*"Mindmap is a type of diagram with lines and circles for organizing information so that it is easier to use or remember (Cambridge dictionary, available at:*

	https://dictionary.cambridge.org/dictionary/english/mind-map).”
punctuation marks	*“Punctuation marks are all segmental units of writing – i.e. they fully occupy a position in the linear sequence of written symbols. They serve to give indications of the grammatical structure and/or meaning of stretches of written text (Huddleston, Pullum, 2008).”*

6.4 Discovering indefinite articles

Level: A1.1	**Class size:** individual/ pair work
Language focus: indefinite articles	**Aims:** to introduce indefinite articles and to notice when to use “a” and “an”
Preparation time: 5 minutes	**Activity time:** 10 minutes
Topic: In the classroom	**Unit in the textbook**: Unit 1, Project 1
Material: cards with words and articles, 6.4 worksheet with articles (Appendix 5)	

Before class

Prepare cards for each pair of learners or have the learners prepare the cards at home.

In class

1. Introduce the usage of indefinite articles by pointing at the pronounced vowel and pronounced consonant. For a better illustration, use different colours. The pronounced consonants and indefinite article “a” should be marked in blue and the pronounced vowels and indefinite article “an” should be marked in green. These colours are also used in the cards.
2. Ask the learners to put the cards on the table. The cards with the indefinite article “a” should be put on the left side of the table and the cards with the indefinite article “an” should be put on the right side of the table. Ask the learners to put the cards with words under the correct card with the appropriate indefinite article.

Notes for the teacher

The activity applies colour-coding for distinguishing the indefinite articles. The indefinite article “a” is marked in blue and the indefinite article “an” is marked in green. The initial letters of the

words presented in the cards are also marked in blue or green depending on whether the initial sound of the word is a pronounced vowel or a pronounced consonant. The colour correspondence between the type of pronounced initial sound and the corresponding indefinite article helps learners create a better association. The manipulation with the cards should enhance their understanding and learning of the indefinite articles. The articles and words are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.5 Which indefinite article – a or an?

Level: A1.1	**Class size:** individual work
Language focus: indefinite articles	**Aims:** to notice and practice using indefinite articles "a" and "an"
Preparation time: 5 minutes	**Activity time:** 10 minutes
Topic: In the classroom	**Unit in the textbook**: Unit 1, Project 1
Material: 6.5 worksheet, a blue pen and a green pen (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner a worksheet with a list of words.
2. Ask the learners to circle the initial letter pronounced as a vowel sound in the words with a green pen and the initial letter pronounced as a consonant sound in the words with a blue pen.
3. Check whether the learners have circled the initial letters representing the vowel and consonant sounds with the correct colours.
4. Ask the learners to fill in the gaps with the correct indefinite article. They should write the indefinite article "a" with a blue pen and the indefinite article "an" with a green pen.

Notes for the teacher

In this activity, learners practice distinguishing which letters represent vowel and consonant sounds. Colour-coding is used to help them realize the initial sound of words that influences which

indefinite article should be used. Once the learners are able to distinguish the initial sounds of words, they need to realize which article to use. In order to make stronger and better associations, they should again use colour-coding. Learners can do the activity individually or in pairs. The articles and words are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.6 Indefinite articles in sentences

Level: A1.1	**Class size:** individual work
Language focus: indefinite articles	**Aims:** to practice using indefinite articles "a" and "an" in sentences
Preparation time: 5 minutes	**Topic:** In the classroom
Activity time: 10 minutes	**Unit in the textbook**: Unit 1, Project 1
Material: 6.6 worksheet, a blue pen and a green pen (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner a worksheet.
2. Ask the learners to fill in the gaps in the sentences with their own words used with the indefinite article "a" and with the indefinite article "an". The first sentence always includes the correct indefinite article as a model sentence. The learners need to fill in the article as well as the word which they choose. Encourage the learners to write the indefinite article "a" with a blue pen and the indefinite article "an" with a green pen.

Notes for the teacher

When the learner is able to distinguish when to use the indefinite article "a" and the indefinite article "an", they need to be encouraged to practice the words with the appropriate articles in sentences. In this activity, a model sentence is provided and the learners need to create their own sentences using the indefinite articles marked with the particular colours and words which they individually choose. As they are asked to fill in their own words which they need to choose and use with the correct indefinite article, teachers can see whether they have understood the

grammatical rule and are able to apply it when making their own sentences. As they are asked to create their own sentences, personalization is implemented. Colour-coding is also used in order to distinguish between the articles. The sentences are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.7 Cardinal Numbers

Level: A1.1	**Class size:** individual work, pair work
Language focus: cardinal numbers	**Aims:** to introduce cardinal numbers and to notice when to use which numbers
Preparation time: 15 minutes	**Topic:** Numbers
Activity time: 15 minutes	**Unit in the textbook**: Unit 1, Project 1
Material: 6.7 worksheet cards with numbers (Appendix 5)	

Before class

Prepare cards for each pair of learners or ask them to prepare (cut) the cards at home.

In class

1. Introduce the usage of numbers by pointing at the different suffixes “teen” and “ty”. For better illustration, use different colours. The suffix “teen” should be marked in pink and “ty” should be marked in brown. These colours are also used in the cards.
2. Ask the learners to work in pairs and to put the cards on the table. The cards with numbers should be put next to the cards with their written equivalents. The learners need to match the numbers with the written words. Then check whether they have matched them correctly pointing at the different suffixes.

Notes for the teacher

The activity applies colour-coding for distinguishing between the cardinal numbers ending in “teen” and the cardinal numbers ending in “ty”. The numbers ending in “teen” are marked in pink and the numbers ending in “ty” are marked in brown. This should be the first activity with cards when introducing and practicing these cardinal numbers, as learners can learn the numbers by physically manipulating the numbers and words while matching the numbers with their word

equivalents. This should enhance their understanding and learning of the cardinal numbers. The words are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.8 A Game with numbers

Level: A1.1	**Class size:** pair work
Language focus: numbers	**Preparation time**: 15 minutes
Aims: to introduce numbers and to notice	**Activity time:** 10 minutes
when to use which numbers	**Topic:** Numbers
Material: 6.8 worksheet - cards with numbers (Appendix 5)	
Unit in the textbook: Unit 1, Project 1	

Before class

Prepare cards for each pair of learners or ask them to prepare the cards at home.

In class

1. Ask the learners to work in pairs. One learner should take the cards with numbers. The other learner should take the cards with words.
2. The learner with the cards with words starts first by reading the word on the card and putting it on the table. The pupil with the cards with numbers needs to choose the card with the equivalent number and place it next to the card with the word.
3. When all the cards have been correctly matched, the game will start again. Now the learner with the cards with numbers will put one card with a number on the table and say the number and the other learner will have to find the card with the right word and place it next to the card with the number.
4. Then the learners can exchange the cards and play the game again.

Notes for the teacher

Learners are supposed to match the numbers with their word equivalents, but in the form of a game. They can play this game as mentioned above or as a pelmanism (putting all the cards on the table and trying to find pairs). Playing with the cards containing words with coloured suffixes should help to create better associations and improve their memory and spelling of the words as colour-

coding is applied. They also develop cooperative skills. The words and numbers are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.9 Which number is it?

Level: A1.1	**Class size:** pair work
Language focus: numbers	**Preparation time:** 15 minutes
Aims: to introduce numbers and to notice when to use which numbers	**Activity time:** 10 minutes **Topic:** Numbers
Material: 6.9 worksheet cards with numbers (Appendix 5)	**Unit in the textbook**: Unit 1 (Project 1)

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner a worksheet with numbers and three words.
2. Ask the learners to choose which word corresponds to the number.
3. When they circle the right word, they are supposed to write the word on the line so that they also practice writing and spelling.
4. When they write the word, they should circle the suffix "teen" with a pink pen/crayon and the suffix "ty" with a brown pen/crayon.

Notes for the teacher

The learners do not only practice words that are used to express the particular numbers, but also spelling. Colour-coding is used in order to help them pay attention to the particular suffixes that distinguish the two types of numbers. By circling the suffixes with the particular colour, they should realize which suffix is used in the word denoting the particular number and this should help them write the word correctly on the line provided. The words and numbers are written in a dyslexia friendly font (Arial) and dyslexia friendly font size.

6.10 Singular and plural forms, can you form them both?

Level: A1.1	**Class size:** individual/ pair work
Language focus: plural	**Activity time:** 10 minutes
Aims: to notice and practice plural	**Preparation time:** 10 minutes
Material: 6.10 worksheet (Appendix 5)	**Topic:** Numbers
Unit in the textbook: Unit 1 (Project 1)	

Before class

Prepare cards for each pair of learners or ask them to prepare the cards themselves at home (cutting the cards at home).

In class

1. Ask the learners to work in pairs. They need to prepare the following cards on the table: cards with indefinite articles, cards with numbers and cards with objects and with the plural suffix -s and -es.
2. Ask the learners to take a card, for example, the card with the word "boy" and place it on the table. Ask them to find the correct corresponding indefinite article. Once they have created the singular form with the indefinite article, ask them to take the card with a particular number; then they should add the word "boy" again and finally add the card with -s to form the plural form. Then they should read the singular and the plural forms together. Do another example for them with the words that form the plural form with -es and then with those that have an irregular plural form. Then the learners are supposed to work in pairs and do the same with other nouns.
3. When all the learners have created the singular and plural forms, they should read them aloud so that the teacher can check whether they have created the singular and plural correctly.

Notes for the teacher

Learners become familiar with the suffixes used for making regular plural forms of nouns as well as with the nouns that have irregular plural forms. By manipulating with the cards, they should notice the adding of -s or -es to the singular form of a noun when making the plural forms. Colour-coding is also used to help them better associate the suffixes with plural formation. Moreover, they also revise the usage of indefinite articles. A dyslexia friendly font is applied.

6.11 What is the plural form of the word?

Level: A1.1	**Class size:** individual/ pair work
Language focus: indefinite articles, plural	**Aims:** to notice and practice indefinite articles and plural
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: Objects and people, Numbers	**Unit in the textbook**: Unit 1, Project 1
Material: 6.11 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Ask them to fill in the appropriate indefinite article. Ask them to circle the articles with the appropriate colours. The indefinite article "a" should be circled with a blue pen and the indefinite article "an" should be circled with a green pen.
2. Once they have filled in the appropriate articles and you have checked their answers, ask them to fill in the appropriate plural suffix – s or -es. Ask them to circle the suffixes also with the appropriate colour. The suffix – s should be circled with a yellow pen and the suffix -es should be circled with an orange pen.
3. After you have checked whether they have filled in the correct suffixes, ask them to write the plural forms of the nouns on the line.

Notes for the teacher

Learners practice indefinite articles as well as plural forms. They focus on the type of indefinite articles they should use with the particular nouns. They use colours to distinguish the indefinite article "a" and the indefinite article "an". When they fill in the appropriate articles, they practice plural formation. They should use different colours to distinguish the suffixes – s and -es. Colouring is useful for better visualization, which should lead to better associations. The learners should notice and practice the plural formation by adding the appropriate suffixes and when they manage to do that, they should also try to write the nouns in the plural forms and thus also practice writing. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.12 There is/there are sentences

Level: A1.1	**Class size:** individual
Language focus: indefinite articles, plural, there is/are	**Preparation time:** 5 minutes **Activity time:** 10 minutes
Aims: to notice and practice indefinite articles, plural and there is/are	**Topic:** Objects
Material: 6.12 worksheet (Appendix 5)	**Unit in the textbook**: Unit 1, Project 1

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Explain that *there is/there are* sentences are formed by using a triangle. Draw the triangle on the board and show them how to construct *there is/ there are* sentences.
2. Then ask them to open the textbook on page 11 and look at the picture. Explain that their task is to fill in the sentences with the appropriate word so that it depicts what is in the picture.
3. Once the learners have filled in the words, check the answers. Ask the learners to read the sentences while using their fingers to follow the arrows next to the triangle.

Notes for the teacher

The triangle is used to help the learners remember the word order applied in *there is/there are* sentences. Colour-coding is used to help them better remember the forms and when to use *is* and *are*. They also practice using *there is/there are* sentences in the context as they create the sentences in order to describe the picture. Once they have managed to describe the picture by using *there is/there are* sentences, the activity may be personalized by asking them to make their own sentences to describe their classroom or their bedroom. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.13 There is, there are, who knows why?

Level: A1.1	**Class size**: individual/ pair work
Language focus: indefinite articles, there is/are	**Aims:** to notice and practice plural, there is/are, indefinite articles
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: In the classroom	**Unit in the textbook**: Unit 1, Project 1
Material: 6. 13 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Ask them to look at the examples and explain that their task is to put the words in the correct order to make sentences.
2. The learners should work individually or in pairs as they try to put the words in the correct order and write the sentence on the line.
3. Ask the learners to circle the function words with the appropriate colour. The function word "there" should be circled with a brown pen, the indefinite article "a" with a blue pen, the indefinite article "an" with a green pen, the plural suffix -s with a yellow pen, the plural suffix -es with an orange pen.
4. Once the learners have created the sentences, check whether the sentences are correct.

Notes for the teacher

Colour-coding is used to help learners notice the grammatical structure *there is/are*, indefinite articles and plural forms. The suffixes that are used for forming the plural form of the noun are in the same colour as the verb to be in the plural form "are" so that learners can create the association between the "are" form and the plural forms of nouns. In addition to putting the words in the correct order, the learners are supposed to write the sentences so they also practice writing; but as the function words and suffixes are colour coded, it should be easier for them to notice and copy when writing the sentences. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.14 What is in my room? What is in my friend's room?

Level: A1.1	**Class size:** individual/ pair work
Language focus: indefinite articles, plurals, there is/are	**Aims:** to practice indefinite articles, there is/are sentences in context and to practice writing and speaking skills
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
T**opic:** My room	**Unit in the textbook**: Unit 1, Project 1
Material: 6.14 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Ask them to think about the things they have in their room at home. You or the learners will write the words that come to their mind on the board. Once you have done the brainstorming, ask them to write six sentences about the things that can be found in their room at home. Explain that they can use the words written on the board or the words that are included in the worksheet.
2. Once they have finished writing their sentences, ask them to work in pairs and tell each other what can be found in their rooms. They should try to remember the things that are in their schoolmate's room. Then ask the learners to write down six sentences about the things their schoolmate has in his/her room.

Notes for the teacher

Start the activity with brainstorming so that the learners' cognitive schemata can be activated. For learners with dyslexia, some example words might be provided so that they can use them when forming sentences about their rooms. The learners practice the grammatical structures but also writing and speaking skills. Moreover, they develop their listening skills as well as memory as they need to remember their schoolmate's description of their room and describe it according to the information provided. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.15 Where are you from?

Level: A1.1	**Class size:** individual
Language focus: personal pronouns, the verb "to be"	**Aims:** to practice the verb "to be" in indicative sentences
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: Countries	**Unit in the textbook**: Unit 2, Project 1
Material: 6.15 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Ask them to look at the triangles and explain how the verb "to be" is used with the particular personal pronouns.
2. Create a sentence and ask the learners to create their own sentences using the particular personal pronouns. Encourage them to use the countries mentioned in the unit 2.
3. Check the sentences they created.

Notes for the teacher

Explain how the verb "to be" is used with the particular personal pronouns in the present tense in affirmative sentences. The triangle is used to help the learners understand the word order used in these sentences. The learners do not only practice the verb "to be" but also the vocabulary from unit 2 which deals with different countries. Colour-coding is used to highlight the verb form used with the particular personal pronouns. The activity can be extended for practicing negative sentences or interrogative sentences. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.16 Guess the country I am from

Level: A1.1	**Class size:** pair work
Language focus: personal pronouns, be", the verb "to be", there is/are	**Aims:** to practice the verb "to there is/are
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: Countries	**Unit in the textbook**: Unit 2, Project 1
Material: 6.16 worksheet (Appendix 5)	

Before class

Prepare the cards from the worksheet for each pair.

In class

1. Give each pair a set of cards from the worksheet. Each learner takes 3 cards. They mustn't show their cards to their schoolmate. They present the information about the country from the card using the grammatical structure *there is/are* and their partner asks questions (*Are you from*….?) trying to guess the country they are talking about.
2. They take turns until they have spoken about all of the countries presented in the cards.

Notes for the teacher

The aim of this activity is to practice grammatical structures in communication. The learners are provided hints but they need to create the sentences themselves. The teacher should monitor their conversations all the time and check whether they are successful in using the grammatical structures correctly. Not only do they practice grammar, but they also learn about famous places from various countries and thus they also develop their intercultural competence. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.17 I **have got** a computer but he **has got** a computer.

Level: A1.1	**Class size:** pair work
Language focus: personal pronouns, the verb "have got"	**Aims:** to practice the verb " have" got" in affirmative sentences
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: My world	**Unit in the textbook**: Unit 3, Project 1
Material: 6.17 worksheet (Appendix 5)	

e got

In class

1. Give each learner the worksheet. Explain when and how the verb "have got" is used and when the verb form "has got" is used. Learners should read the sentences and notice which personal pronouns are used with "have got" and "has got". The teacher can ask them to create their own sentence with each personal pronoun.
2. The learners cut the cards and fill in the sentences with the card with the correct form of the verb have got. Then check their sentences.

Notes for the teacher

The aim of this activity is to explain the difference between "have got" and "has got". Learners with dyslexia need to have the rules explained in a structured way and by using a multisensory approach. Therefore, colour-coding is used to distinguish between the personal pronouns used with "have got" and "has got". In task 2, the cards are used so that the learners can manipulate with them and focus on distinguishing which form of the verb to use in the particular sentences. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.18 Have you got….? No, I haven't got…

Level: A1.1	**Class size:** individual work
Language focus: the verb "have got", personal pronouns	**Aims:** to practice the verb "have got" in negative and interrogative sentences
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: My world	**Unit in the textbook:** Unit 3, Project 1
Material: 6.18 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Explain when we use "haven't got" and when we use "hasn't got". Learners should read the sentences and notice which personal pronouns are used with "haven't got" and "hasn't got" and they should also notice the negative form of this verb. The teacher can ask them to create their own sentence for each personal pronoun.
2. Ask the learners to create their own sentence with each personal pronoun. They should use the triangle which should help them form the sentences. They need to fill in the correct negative form of the verb. Then check the sentences they created.
3. They should notice how questions using the verb "have got" are formed. The learners are supposed to fill in their own nouns in the sentences and read the sentences.

Notes for the teacher

The aim of this activity is to explain how the negative form of the verb "have got" is formed. Learners with dyslexia need to have the rules explained in a structured way and by using a multisensory approach. Therefore, colour-coding is applied to distinguish the personal pronouns that are used with which negative form of the verb "have got". In task 2, a triangle is used in order to illustrate the word order which needs to be used when creating sentences using the negative forms of the verb "have got". A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.19 Possessive genitive

Level: A1.1	**Class size:** individual work
Language focus: "have got", possessive genitive	**Aims:** to practice the verb "have got" and possessive genitive
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: Friends	**Unit in the textbook**: Unit 2, Project 1
Material: 6.19 worksheet (Appendix 5)	

Before class

Prepare a worksheet for each learner.

In class

1. Give each learner the worksheet. Explain how the possessive genitive is formed and used. An example sentence with marked ’s genitive is provided so that learners can notice it more easily.
2. Ask the learners to cut the cards (they can do it at home). Ask them to create the possessive genitive using the cards. Check whether they have created the possessive genitive correctly.
3. Ask them to fill in the missing ’s genitive. Ask them to use an orange pen to remember the form.
4. Ask them to fill in the correct form of the verb have got and then create the possessive genitive.

Notes for the teacher

The aim of this activity is to explain how the possessive genitive is formed and used. Learners with dyslexia need to have the rules explained in a structured way and by using a multisensory approach. Therefore, colour coding is used to point at the ’s they need to add to nouns. They should manipulate with the cards in order to notice and realize how the possessive genitive is formed. Then they write it themselves and finally they fill in the sentences so they can see how it is used in context. A dyslexia friendly font (Arial) and dyslexia friendly font size is applied.

6.20 Prepositions of place

Level: A1.1	**Class size:** individual work
Language focus: prepositions of place	**Aims:** to practice prepositions of place
Preparation time: 5 minutes	**Activity time:** 10 - 15 minutes
Topic: My room	**Unit in the textbook**: Unit 5,
Material: 6.20 worksheet, a box, a pen,	Project 1
a book, a bag, a pencil case, a pencil, a chair (Appendix 5)	

Before class

Prepare a worksheet and cards for each learner (the learners can cut out the cards at home). The learners need to prepare the following objects: a box, a pen, a book, a bag, a pencil case, a pencil, a chair.

In class

1. The teacher asks the learners to put the box and the cards with prepositions on the table. Then the teacher shows different positions of the cards and the box and says the sentences describing these positions. The learners do the same. So for example, the teacher says: *"The card is in the box"* and puts the card with the preposition "in" in the box. The learners do the same with their card and box and say the sentence, while looking at the preposition written on the card. The teacher presents all the prepositions in this way.
2. The teacher gives each learner the worksheet and asks them to do part B. The teacher will show the position of his/her pen, and they will do the same with their objects and fill in the correct preposition in the sentences in their worksheet. The teacher will show the following positions: *The pen is next to the book. The pen is in the bag. The pen is in front of the pencil case. The pen is under the chair. The pen is behind the chair. The pen is between two books. The pen is opposite the pencil.* The teacher needs to check their answers.

Notes for the teacher

The aim of this activity is to explain how the particular prepositions of place are used and what they mean. A multisensory approach is applied as the learners manipulate with the cards in order to show the position the particular preposition represents. More senses are involved when learning.

7 Dyslexia and Teaching Pronunciation

7.1 Phonological processing and phonological deficit

Phonological processing deficits have been identified as one of the main problems for learners with dyslexia. Caravolas, Mikulajová and Kuchaská (2019) note three main components that can be considered to be proximal predictors of individual differences in reading and spelling: **phoneme awareness, letter knowledge and RAN (rapid naming)**. **Phoneme awareness** is said to have an influence on the quality and accessibility of phonological representations. Hilme & Snowling (2009) explain that phonological processing, also called implicit phonology, deals with how children use speech without reflecting on how the spoken words are structured. The typical tasks used to study phonological processing focus on repeating words or non-words. **Phonological awareness**, also called explicit phonology, refers to the ability to make different operations related to speech sounds, to analyze and synthesize phonological elements and thus recognize the structure of spoken words. Phoneme awareness is a type of phonological awareness dealing with the identification and manipulation of individual phonemes (Krasowicz-Kupis, 2008).

When acquiring or learning a language, learners develop epilinguistic and metalinguistic competence. **Epilinguistic competence** is implicitly acquired during earlier development and is automatically and unconsciously applied by pre-literate children. **Metalinguistic competence** is consciously and intentionally learned (Krasowicz-Kupis; Bryant, 2004; Saiegh-Haddad, 2007). Goswani (2000) explains that while developing phonological awareness, children progress from larger to smaller sound units. They start by handling tasks that focus on sentences, phrases and words. Then they focus on phonological units in words, but firstly they work with syllables before focusing on particular phonemes. Tasks that focus on identification, analysis and synthesis and blending are used to assess and teach phonological awareness.

Studies and research in the field of phonological awareness have suggested that phonological problems that occur when learning to read lead to reading problems. Thus, the **phonological deficit** is said to pre-date reading instruction and the possible severity of later reading problems; this can be predicted depending on how severe the phonological processing problems might be (Hulme & Snowling, 2009). Nijakowska (2010: 47) explains that *"phonological deficit is claimed to persist through time, before and after reading has begun."* Krasowicz-Kupis (2008)

and cites various cross-sectional studies that have been conducted to verify the "**core phonological hypothesis"** that focuses on comparing the performance of learners with dyslexia and mainstream learners regarding phonological awareness as one of the predictors of reading difficulties and the effectiveness of early phonological training for the development of reading skills. Nijakowska (2010: 47) explains that *"these studies produced an impressive amount of strong and converging evidence in support of the assumption that weak phonological coding constitutes the cause of dyslexia. In addition, the link between phonological processing deficits and atypical brain activation patterns as well as anatomical differences has been demonstrated repeatedly."*

Various studies (Hoien & Lundberg, 2000; Vellutino et al., 2004; Hulme et al., 2005) have documented phonological processing difficulties that commonly occur in learners with dyslexia, especially in terms of phonological awareness tasks and tasks that require memory for phonological sequences. Lundberg and Hoien (2001) list the following **deficiencies in phonological processing** in learners with dyslexia:

- segmenting words into phonemes;
- keeping sounds in short-term memory;
- repeating back long non-words;
- slow naming of objects in pictures;
- slower rate of speech; and
- problems in phoneme manipulation.

Ramus et al. (2003) mention that according to the phonological coding deficit hypothesis, learners with dyslexia have specific disruptions in the way speech sounds are represented, stored in their memory and retrieved. These disruptions negatively influence the acquisition of grapheme-phoneme correspondences which leads to reading disorders. Vellutino et al. (2004) explain that phonological coding deficits lead to the inaccurate creation of phonological representations of words in the learner's mental schemata of his/her lexicon. Due to such deficits, learners fail to acquire phonological awareness and alphabetic coding skills which leads to the reading problems which learners with dyslexia experience. Nijakowska (2010: 48) also emphasizes that *"children at risk for dyslexia tend to demonstrate failure in creating mental phonological representations long before they begin their reading instruction."*

Wise et al. (2007) also point to the fact that phonological representations of words are first holistic and global and only later do children start distinguishing segments of sounds in words that

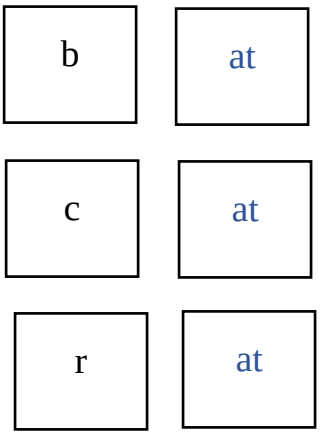
correspond to syllables, rimes and finally individual phonemes. In the pre-literacy period, phonemic representation is quite rare; however, this depends on the linguistic background of the child, as children undergo various types of training aimed at developing phonemic awareness which influences the degree of their phonemic awareness. The nature of language and its orthography also plays a crucial role. Children acquiring a transparent language are said to acquire the phoneme-level representation faster than children acquiring and learning to read in a non-transparent language (Caravolas, Mikulajová, Kuchaská, 2019; Goswami, 2000). Nijakowska (2010) explains that although some dyslexic learners manage to achieve quite good reading skills, they still struggle with decoding, as they tend to have problems with automatically and fluently recognising words due to the phonological deficit that makes it even harder for them to access the higher levels of language processing (syntactic and semantic). She believes that "*a pervasive phonological impairment present in pre-school years and persisting after the onset of reading instruction constitutes a characteristic feature of dyslexia, which at the cognitive level can be perceived as a delay or difficulty in forming segmental phonological representations. Non-segmental and poorly specified phonological representations present in children beginning formal reading instruction can considerably influence their reading development and aggravate reading difficulties*."

7.2 Techniques for developing phonological awareness

Children develop phonological awareness from larger to smaller sound units. Firstly, they learn that sentences are composed of separate words, before being able to identify syllables, onsets and rimes, and only then proceed to developing an awareness of phonemes. **Phonemic awareness** involves separating, blending and manipulating with sounds. Learners need to be able to recognize the particular sounds before producing them. They need to go through four stages: rhyming; isolating and categorizing sounds; blending and segmenting syllables and sounds; and manipulating phonemes (sounds). In the first stage, they need to learn how to recognize a rhyme, differentiate it and finally produce it. In the second stage, they need to focus on isolating and categorizing sounds, recognizing them, differentiating them and finally producing the sounds themselves. Once they have managed to isolate individual sounds, they can proceed to the third stage which focuses on blending syllables, onset and rime, and phonemes, segmenting words in

a sentence, segmenting syllables, onset and rime and phonemes. The last stage dealing with manipulating phonemes involves manipulating initial and final sounds.

When developing phonological and phonemic awareness with dyslexic learners, a multisensory approach, involving different visual cues (such as boxes, markers, pictures, gestures, wooden or plastic letters) and auditory cues such as clapping or tapping that might be useful when counting the number of syllables or sounds in a word is recommended. Cards or tokens can be used to represent sound units by graphemes and for learning how to manipulate with them. Teachers should also be aware of the fact that dyslexic learners need to have rules clearly explained and the opportunity for extensive repetition and practice. It is also useful to present words in sets that are classified according to the rimes they share, as indicated below:



When pointing at the boundaries between words, syllables and sounds, teachers can use **colour-coding** which is also very useful when segmenting and blending onsets and rimes and for helping learners understand what is the initial sound of the word. **Flip cards** can be used for showing how different letters can be combined to form new words. Word slides are also useful for practicing forming new words, as they contain movable parts with different letters so that learners can create various words by moving the letters (Nijakowska, 2010).

Various methods for teaching reading have been introduced such as **the alphabetic method**, **the look and say method and the whole-word method** focusing on memorizing the words rather than the blending and **phonics method**. In order to find out the most effective method for teaching reading and writing in English, a reading review was undertaken by Jim Rose (2006) which took into consideration information from three sources: 1. research; 2. interviews with

practitioners, teachers, trainers, resource providers and policy makers; and 3. school visits and training events. Rose (2006: 4) concludes that *"despite uncertainties in research findings, the practice seen by the review shows that the systematic approach, which is generally understood as 'synthetic' phonics' offers the vast majority of young children the best and most direct route to becoming skilled readers and writers. When thinking about phonic work what most people have in mind is the teaching and learning of reading. However, phonics work is also essential for the development of writing, especially spelling."* **The phonics method** has been also recommended for teaching reading to dyslexic learners; it involves the multisensory approach, the rules are clearly explained and the sounds as well as the graphemes that represent these sounds are systematically introduced. The method focuses on developing five skills – **learning the letter sounds, learning letter formation, blending (crucial for reading), identifying the sounds in words (crucial for writing) and learning tricky words.** The letter sounds are divided into groups of six in order to make learning to read less complicated and more systematic as can be seen below:

1. group: s, a, t, i, p, n
2. group: c k, e, h, r, m, d
3. group: g, o, u, l, f, b
4. group: ai, j, oa, ie, ee, or
5. group: z, w, ng, v, little oo, long oo
6. group: y, x, ch, sh, voiced th, unvoiced th
7. group: qu, ou, oi, ue, er, ar.

The letters included in the first group usually occur in simple words so they are easy for children to blend when making words, such as *pin, tin, pan, sat.* Moreover, letters which can be easily confused, such as b and d, are in separate groups. After learning all 42 letter sounds, children also become familiar with alternative vowel spellings (Lloyd, Wernham, 2010). Lloyd and Wernham (2012: 2) explain that *"the key advantages of this system are that it teaches children to recognise all the main letter sounds early on and shows them how to use their letter-sound knowledge to work out words: running sounds together (blending) for reading and identifying sounds in words (segmenting) for writing. As a result, the children's achievements are very much greater, not only in reading but also in writing; at an early stage, the children have a way of writing each letter sound, and this means they are soon able to write whatever they wish in a way that is readable."* This method also uses visual aids, cards for word building which they can manipulate and various

techniques when implementing the multisensory approach, such as forming letters in the air or in sand, flour or other materials. A story and a song which children can sing are used for each sound. The techniques that are used in the multisensory approach and which are also used in this method have proved to be useful and beneficial for dyslexic learners, and therefore it is recommended to implement them into English lessons when teaching (not only) dyslexic learners.

Answer the following questions:

1. Explain the difference between phonemic and phonological awareness.
2. What role does the phonological deficit play when learning to read?
3. What role does the nature of the language and its phoneme-grapheme correspondences play when acquiring the phoneme-level representations?
4. Why is the phonological deficit also said to affect the acquisition of higher levels of language processing (syntactic and semantic)?
5. What was the aim of the reading review made by Jim Rose?

Task 1 Put in the correct order the following steps used in the Jolly Phonics method when teaching a new sound. Explain each step and illustrate it with a specific example using Jolly phonics materials.

BLENDING	SOUNDING	STORY
SHOW FLASHCARD	DICTATION	

Task 2 Find information about the whole-word approach and the Jolly Phonics method and

a. compare and contrast them.

b. decide which method you, as a future teacher, consider to be more effective for dyslexic (but also mainstream) learners learning English as a foreign language.

c. find research focusing on these methods and present the results in a discussion with your schoolmates.

Task 3 Compare the Jolly Phonics method and the Elkonin method that is used for developing phonemic and phonological awareness in Slovak.

Task 4 Look at the following words and

CHEESE	**CH**RISTMAS	**CH**EF

a. explain why they might be complicated for learners when learning to read.

b. suggest other graphemes (letters) in English that might be complicated for learners for the same reason.

Task 5 Watch the following video by Sue Lloyd called *Vowels and Consonants* (http://tcrw.co.uk/materials-linked-to-phonic-knowledge/vowels-how-they-work/part-1-vowels-and-consonants/) and answer the following questions:

1. Why is the letter <y> an unusual letter?
2. Which two or more letters are used to make other vowel sounds?
3. Which vowel sounds are represented by a vowel and a consonant(s)?
4. Explain the well-known saying: *When two vowels go walking, the first does the talking*.
5. Explain what *hop-over-e digraphs* are and give some examples.

Task 6 Suggest different ways of teaching the following letters and corresponding sounds. Use the multisensory approach and different materials (e.g. sand and flour). Create these activities, prepare the materials and do the activities with your schoolmates or with real pupils if possible.

s	**c**	**u**	**oa**	**oo**	**sh**	**er**

Terminology to remember

blending	*The process of saying the individual sounds in a word and then running them together to make the word (http://jollyreading.com/3-blending/).*
consonant	*One of the speech sounds or letters of the alphabet that is not a vowel. Consonants are pronounced by stopping the air from flowing easily through the mouth, especially by closing the lips or touching the teeth with the tongue (https://dictionary.cambridge.org/dictionary/english/consonant).*

phoneme awareness	*Phonological awareness dealing with identification and manipulation of individual phonemes (Krasowicz-Kupis, 2008).*
phonological processing	*Implicit phonology dealing with how children use speech, without reflecting on how the spoken words are structured (Hilme & Snowling (2009).*
segmenting	*Identifying the sounds in words (http://jollyreading.com/4-identifying-the-sounds-in-words/).*
vowel	*A speech sound produced by humans when the breath flows out through the mouth without being blocked by the teeth, tongue, or lips (https://dictionary.cambridge.org/dictionary/english/vowel)*

7.3 Sounds /æ/, /tʃ/, /ɒ/, /iː/

Level: A1.1	**Class size:** individual/ pair work
Language focus: sounds /æ/, /tʃ/, /ɒ/, /iː/	**Aims:** to introduce and help learners notice the pronunciation of the following sounds: /æ/, /tʃ/, /ɒ/, /iː/ and to notice which graphemes are used to represent these sounds in selected words.
Preparation time: 5 minutes	**Activity time:** 10 minutes
Topic: Sounds and letters	**Unit in the textbook**: Unit 1, Project 1
Material: 7.3 worksheet, cards (Appendix 6)	

Before class

Prepare cards for each pair of learners or they can prepare them at home.

In class

1. Introduce the pronunciation of the sounds /æ/, /tʃ/, /ɒ/, /iː/ pointing to the cards and the graphemes which represent them. First, pronounce the words and ask the learners to say the words themselves. Then ask them to point to the particular grapheme and pronounce it.
2. When the learners become familiar with the sounds and the words they appear in, practice blending the sounds to form the words. The learners should first repeat after the teacher. Point to the particular graphemes and pronounce them, for example the word "bag", pronounce it in this way: b-æ-g, each sound separately and then say all the sounds together to form the word. Ask the learners to do it in the same way.

5. First, the learners practice this with the teacher's help and then they should try it individually or in pairs.

Notes for the teacher

The activity applies colour-coding for distinguishing the particular graphemes that represent the particular sounds. The sound and the grapheme are written in the same colour to highlight the association between them. Moreover, the learners also practice phonological awareness as they practice blending when putting the sounds together to form words. Phonetic sound symbols are used so that the learners can distinguish the sound and the grapheme better. A dyslexia friendly font (Arial) and dyslexia friendly font size is used.

7.4 Words with /æ/, /tʃ/, /ɒ/ or /iː/ sound

Level: A1.1	**Class size:** individual/ pair work
Language focus: sounds /æ/, /tʃ/, /ɒ/, /iː/	**Aims:** to practice noticing the following sounds: /æ/, /tʃ/, /ɒ/, /iː/ in words and noticing the graphemes that represent these sounds in the selected words.
Preparation time: 5 minutes	**Activity time:** 10 minutes
Topic: Sounds and letters	**Unit in the textbook**: Unit 1, Project 1
Material: 7.4 worksheet (Appendix 6)	

Before class

Prepare a worksheet for each learner or pair of learners.

In class

1. Revise the pronunciation of the sounds /æ/, /tʃ/, /ɒ/, /iː/ pointing to the words in the cards from activity 7.3 and the graphemes which represent them.
2. Ask the learners to take four pens or crayons: they should be green, yellow, purple and blue.
3. Ask them to read the words in the worksheet silently and circle the graphemes which represent them: /æ/, /tʃ/, /ɒ/, /iː/. They should circle the grapheme that represents the /æ/ sound with a green pen, the grapheme that represents the /tʃ/ sound with a yellow pen, the

grapheme that represents the /ɒ/ sound with a purple pen and the grapheme that represents the /iː/ sound with a blue pen.

4. Check whether they identified the sounds in the words and the graphemes that represent them correctly.

Notes for the teacher

The activity applies colour-coding for distinguishing the particular graphemes that represent the particular sounds. The sound and the grapheme that represents the sound should be circled with the same color as the phonetic symbol for that sound to strengthen the association between them. Moreover, the learners also practice phonological awareness as they practice noticing the sounds in the words. Phonetic sound symbols are used so that the learners can distinguish the sound and the grapheme better. A dyslexia friendly font (Arial) and dyslexia friendly font size is used.

7.5 Which sound can I hear?

Level: A1.1	**Class size:** individual work
Language focus: sounds /æ/, /tʃ/, /ɒ/, /iː/	**Aims:** to practice noticing the following sounds: /æ/, /tʃ/, /ɒ/, /iː/ in words
Preparation time: 5 minutes	**Activity time:** 5 minutes
Topic: Sounds and letters	**Unit in the textbook**: Unit 1, Project 1
Material: cards from 7.5 worksheet (Appendix 6)	

Before class

Prepare the cards with these sounds /æ/, /tʃ/, /ɒ/, /iː/ for each learner.

In class

1. Revise the pronunciation of the sounds /æ/, /tʃ/, /ɒ/, /iː/ pointing to the words in the cards from activity 7.3 and the graphemes which represent them.
2. Ask the learners to listen carefully to the words which you are going to tell them; when they hear one of the following sounds - /æ/, /tʃ/, /ɒ/, /iː/ in a word, they should hold up the card with that particular sound.
3. Say the following words:

mad, pot, teeth, chess, sad, choose, meet, happy, church, odd, sleep, hospital, chest, stop, tree, cherry, angry, hockey, sweet, fat

4. Check whether they correctly identified the sounds in the words and then repeat the word focusing on the sound.

Notes for the teacher

The activity focuses on developing phonemic awareness as the learners have to pay attention and identify which of the sounds they can hear and identify in the particular word. In order to make better associations, the cards with the phonetic symbols of the particular sounds in particular colours are used; therefore colour-coding is also applied.

7.6 Initial sounds in words

Level: A1.1	**Class size:** individual work, pair work
Language focus: initial sounds in words	**Aims:** to practice noticing the initial sounds in words
Preparation time: 5 minutes	**Activity time:** 5 minutes
Topic: Countries	**Unit in the textbook**: Unit 2, Project 1
Material: 7.6 worksheet (Appendix 6)	

Before class

Prepare the cards from the worksheet for each pair of learners.

In class

1. Tell the learners that they are going to listen to words and ask them to focus on the initial (first sound) of the word. First, show them some examples. Say the word "snake" and explain that we can hear the initial sound "s", say the sound again and also the word: s-snake. Then ask the learners to say it in the same way. Then do the same with the words *car* and *dog.* Once they have understood what they are supposed to do, you can do the activity with them.
2. Say the following names of countries and ask them to say the initial sound which they can hear in each word.

Japan, USA, China, France, Australia, Italy, Greece, Brazil, Germany, Russia, Britain, Spain

3. Ask the learners to work in pairs. Give each pair 2 cards. Each learner takes one card and does not show it to his/her partner. Each card contains a list of countries and the transcription. Learner 1 says the first country on the list and learner 2 needs to say the initial sound of the word. Then learner 2 says a country from the list and learner 1 needs to say the initial sound of the word. They take turns until they go through all the countries on their lists.
4. Then say the following words, but not as a whole word but segmented into sounds. The task of the learners is to guess which country you are saying. For example, you say *dʒ-əˈ-p-æ-n* and they need to say the word *Japan /dʒəˈpæn/.*

/b-r-əˈ-z-ɪ-l/, /ˈtʃ-aɪ-n-ə/, /f-r-ɑː-n-s/, /juː-esˈ-eɪ/, /ˈb-r-ɪ-t-ə-n/, /g-r-iː-s/

Notes for the teacher

The activity focuses on developing phonemic awareness, as the learners need to pay attention and identify the initial sounds of the words (countries). It is recommended to practice this first with the help of the teacher and only then in pairs. When the learners work in pairs, they have the cards and can see how the particular words are pronounced thanks to the transcription. Colour-coding is also applied as the initial sound is in another colour to also point it out in visual form so that the learners can easily check whether they are correct. They also practice blending and pronunciation, as the teacher says the sounds of the word and they need to find out which word it is. In this way, they also develop attention and phonemic awareness. A dyslexia friendly font (Arial) and dyslexia friendly font size is used.

7.7 Distinguishing /ə/ and /ɜː/

Level: A1.1	**Class size:** individual work, pair work
Language focus: /ə/ and /ɜː/ sounds	**Aims:** to practice noticing the initial sounds in words
Preparation time: 5 minutes	**Activity time:** 5 minutes
Topic: Sounds /ə/ and /ɜː/	**Unit in the textbook**: Units 2, 3, Project 1
Material: 7.7 worksheet (Appendix 6)	

Before class

Prepare a worksheet for each learner.

In class

1. Tell the learners to look at these words in the worksheet: *grandfather, grandmother, father, mother, sister, brother*. Say each word and point to the /ə/ sound and the letters that represent it. Say each word again and ask the learners to repeat the pronunciation and while pronouncing the /ə/ sound at the end, ask them to point to the /ə/ sound in the worksheet. Learners should practice pronunciation and therefore they should pronounce the words several times.
2. Then tell the learners to look at these words in the worksheet: *bird, girl, birthday*. Say each word and point to the /ɜː/ sound and the letters that represent it. Say each word again and ask the learners to repeat the pronunciation and while pronouncing the /ɜː/ sound, ask them to point to the /ɜː/ sound in the worksheet. Learners should practice the pronunciation and therefore they should pronounce the words several times.
3. Ask the learners to cut the cards with the /ə/ and /ɜː/ sounds. Tell them that you are going to say several words and their task is to listen carefully; when they hear the /ə/ sound in the word, they need to hold up the card with the /ə/ sound. When they hear the /ɜː/ sound in the word, they need to pick up and show the card with the /ɜː/ sound.

player, hamster, skirt, shirt, spider, dinner, first, shower, third computer, girl,

Notes for the teacher

The activity focuses on the introduction of the /ə/ and /ɜː/ sounds and the graphemes that represent them. Although these sounds can also be represented by other graphemes, in this activity the focus is just on *er* for the /ə/ sound and *ir* for the /ɜː/ sound. When teaching dyslexic learners, it is better to present the sounds and the graphemes representing the sounds step by step in order to prevent confusion. Colour-coding is applied to distinguish the particular graphemes that represent the particular sounds. The sound and the graphemes are written in the same colour to highlight the association between them. The learners practice the pronunciation of the words focusing on noticing the /ə/ and /ɜː/ sounds. A dyslexia friendly font (Arial) and dyslexia friendly font size is used. In the second activity, they develop discrimination skills, as they need to listen carefully and

decide which sound they can hear in the particular word. The cards are used to show which sound they can hear in the word, so that more senses can be involved - they can hear the sound pronounced in the word and at the same time they can see the phonetic symbol of the sound written on the card.

7.8 Distinguishing / s/ and / ʃ/

Level: A1.1	**Class size:** individual work, pair work
Language focus: /s/ and / ʃ/ sounds	**Aims:** to practice noticing the /s/ and / ʃ/ sounds in words
Preparation time: 5 minutes	**Activity time:** 5 minutes
Topic: Sounds/ s/ and / ʃ/	**Unit in the textbook**: Units 5, Project 1
Material: 7.8 worksheet (Appendix 6)	

Before class

Prepare a worksheet for each learner.

In class

1. Tell the learners to look at these words in the worksheet: *shop, short, finish, shoes, fish.* Say each word and point to the /ʃ/ sound and the letters *sh* that represent this sound. Say each word again and ask the learners to repeat the pronunciation; while pronouncing the /ʃ/ sound, ask them to point to the /ʃ/ sound in the worksheet. Learners should practice the pronunciation and therefore they should pronounce the words several times.
2. Then tell the learners to look at these words in the worksheet: *sofa, school, sport, cinema, center*. Say each word and point to the /s/ sound and the letters (*s* and *c*) that represent it. Say each word again and ask the learners to repeat the pronunciation; while pronouncing the /s/ sound, ask them to point to the /s/ sound in the worksheet. Learners should practice the pronunciation and therefore they should pronounce the words several times.
3. Ask the learners to cut the cards with the /s/ and /ʃ/ sounds. Tell them that you are going to say several words and ask them to listen carefully; when they hear the /s/ sound in the word, they need to hold up the card with the /s/ sound. When they hear the /ʃ/ sound in the word, they need to hold up the card with the /ʃ/ sound.

shower, city, center, she, bus, brush, square, shorts, dance, sport, T-shirt, stop, shell, office, shopping, sit, pencil, bookshelf, ship

Notes for the teacher

The activity focuses on the introduction of the /s/ and /ʃ/ sounds and the graphemes that represent them. Colour-coding is applied to distinguish the particular graphemes that represent the particular sounds. The sound and the graphemes are written in the same color to highlight the association between them. The learners practice the pronunciation of the words focusing on noticing the /s/ and /ʃ/ sounds. A dyslexia friendly font (Arial) and dyslexia friendly font size is used. In the second activity, they develop discrimination skills, as they need to listen carefully and decide which sound they can hear in the particular word. The cards are used to show which sound they can hear in the word, so that more senses can be involved - they can hear the sound pronounced in the word and at the same time they can see the phonetic symbol of the sound written on the card.

7.9 Words with the /ə/, /ɜː/, /ʃ/ or /s/ sound

Level: A1.1	**Class size:** individual/ pair work
Language focus: sounds /ə/, /ɜː/, /ʃ/ or /s/	**Aims:** to practice noticing the following sounds: /ə/, /ɜː/, /ʃ/ or /s/ in words and noticing the graphemes that represent these sounds in the selected words.
Preparation time: 5 minutes	**Activity time:** 10 minutes
Topic: Sounds and letters	**Unit in the textbook**: Units 2, 3, 5, 6 Project 1
Material: 7.9 worksheet (Appendix 6)	

In class

1. Revise the pronunciation of the sounds /ə/, /ɜː/, /ʃ/ or /s/ and the graphemes which represent them.
2. Ask the learners to take four pens or crayons: they should be light green, blue, pink and dark green.
3. Ask them to read the words in the worksheet silently and circle the graphemes which represent them: /ə/, /ɜː/, /ʃ/ or /s/. They should circle the grapheme that represents the /ə/ sound with a light green pen, the grapheme that represents the /ɜː/ sound with a blue pen, the grapheme that represents the /ʃ/ sound with a pink pen and the grapheme that represents the /s/ sound with a dark green pen.

4. Check whether they correctly identified the sounds in the words and the graphemes that represent them.

Notes for the teacher

The activity applies colour-coding for distinguishing the particular graphemes that represent the particular sounds. The sound and the grapheme that represent the sound should be circled by the same color as the phonetic symbol for that sound to strengthen the association between them. Moreover, the learners practice phonemic awareness, as they practice noticing the sounds in the words. Phonetic sound symbols are used so that the learners can distinguish the sound and the grapheme better. A dyslexia friendly font (Arial) and dyslexia friendly font size is used.

Bibliography

American Psychological Association. *APA Dictionary of Psychology*. Retrieved from: *https://dictionary.apa.org/intervention*

Bailey, E. (2017). Teaching vocabulary to students with dyslexia. ThoughtCo. Retrieved from: https://www.thoughtco.com/teaching-vocabulary-to-students-with-dyslexia-3111207

Başar, E. (2006). The theory of the whole-brain-work. In *International Journal of Psychophysiology*, Vol. 60, pp. 133-38.

Birsh, J.R. (Ed.). (2005). *Multisensory teaching of basic language skills*. Baltimore: Paul H. Brookes Publishing Co.

Berlin, R. (1887) *Eine besondere art der wortblindheit (dyslexia).* Berlin: Bergmann.

Bloom, O. *Made by Dyslexia Interview*. [online] youtube.com [15.12.2021] Video, retrieved from https://www.youtube.com/watch?v=-_ij_ZyDwVI

Boer, A-L.; Steyn, T.; Toit, P. H. (2001). A whole brain approach to teaching and learning in higher education. In *South African Journal of Higher Education*, Vol. 15, No.3, pp. 185-193

Borkowska, A. (1997). Zaburzenia jezykowe u dzieci z trudnosciami w czytaniu I pisaniu [Language disorders in children with reading and spelling difficulties]. In A. Heryzk and D. Kadyielawa (eds*) Zwizek mózg – zachowanie w ujeciu neuropsychologii klinicznej [The Relation Between the Brain and the Behaviour from the Perspective of Clinical Neuropszchology*] (pp. 269-292). Lublin: Wydawnictwo Uniwersytetu Marii Curie-Sklodowskiej.

British Dyslexia Association (2009). *"Dyslexia Research Information."* [online] British Dyslexia Association [11.10.2021] Retrieved from: http://www.bdadyslexia.org.uk

Brown, H. D. (2000). *Principles of Language Learning and Teaching*. New York: Longman.

Cambridge dictionary. [online] Cambridge university press. [15.12.2021] Retrieved from: https://dictionary.cambridge.org/dictionary/english/accuracy

Caravalos, M.; Mikulajová, M.; Kuchaská, A. (2019). Developmental Dyslexia in Czech and Slovak. In Verhoeven, L.; Perfetti, Ch.; Pugh, K. (2019). *Developmental Dyslexia across Languages and Writing Systems.* Cambridge: Cambridge University Press.

Carrol, J. B.; Sapon, S. M. (1959). *Modern Language Aptitude Test*. Chicago, IL: The Psychological Corporation. Harcourt Brace Javanovich, Inc.

Cassese-Pawlowski, A. C. (2019). *Using multisensory instruction to support reading growth in a fifth grade general education classroom*. New Jersey: Rowan University.

Center for Functional MRI. What is fMRI? [online] UC San Diego School of Medicine. [15.12.2021] Retrieved from: http://fmri.ucsd.edu/Research/whatisfmri.html

Cimermanová, I. (2016). Integrácia žiakov so špecifickými potrebami vo výučbe anglického jazyka v príprave budúcich učiteľov. In *Kľúčové kompetencie pre celoživotné vzdelávanie V.: zborník príspevkov Centra celoživotného a kompetenčného vzdelávania Prešovskej univerzity v Prešove*. Prešov: Prešovská univerzita v Prešove.

Cook, V.; Ryan, D. (2016). *The Routledge Handbook of the English Writing System.* New York: Routledge.

Davis, K., Christodoulou, J., Seider, S., & Gardner, H. (2011). The theory of multiple intelligences. In R.J. Sternberg & S.B. Kaufman, *Cambridge Handbook of Intelligence*. Cambridge: Cambridge University Press.

Dehaene, S. (2009). *Reading in the brain: The new science of how we read*. London: Penguin.

Dejerine J. (1891). *Sur un cas de cécité verbale avec agraphie, suivi d'autopsie.* In Mém Soc Biol, 1891; 3: 197–201.

Doyle, J. (2002). *Dyslexia: An Introduction Guide.* Chichester: John Wiley and Sons.

Drake, W. E. (1968). Clinical and pathological findings in a child with a developmental learning disability. In *Journal of Learning Disabilities*, Vol.1, pp. 486–502.

Dyslexia Help. University of Michigan. *Vocabulary.* [online] Dyslexia Help [11.10.2021] Retrieved from: http://dyslexiahelp.umich.edu/professionals/dyslexia-school/vocabulary

Dyslexia SPELD Foundation. *Structured Synthetic Phonics: A Guide for Teachers and Parents.* [online] Dyslexia SPELD Foundation [15.12.2021] Retrieved from: https://dsf.net.au/CMSPages/GetFile.aspx?guid=64d9ae37-e4f7-4d1d-b4c3-7e3dba1c5d63

Dyslexia teaching points: Games to help the dyslexic learners. [online] youtube.com [15.12.2021] Retrieved from: https://www.youtube.com/watch?v=IoOGyHKm5XY

Eddy, E. (2011). *On Interconnections among Selected Aspects of English Grammar in Slovak Learners' Acquisition.* Prešov: Prešovská univerzita.

Ellis, R.; Loewen, Sh.; Elder, C.; Erlam, R.; Philp, J.; Reinders, H. (2009). *Implicit and Explicit Knowledge in Second Language Learning, Testing and Teaching.* Bristol: Multilingual Matters.

Fauziah, A.; Apriliaswati, R.; Susilawati, E. (2018). *The Use of Boggle Game to Improve Students' Vocabulary in Writing Descriptive Text.* [online] [15.12.2021] Retrieved from file:///C:/Users/Kika/Downloads/23686-67035-1-PB.pdf

Fawcett, A., Roderick, I. (1993). "Children with Dyslexia show Deficits on Most Primitive Skills." In *Cognitive Science Society*. *Proceedings of the Fifteenth Annual Conference of the Cognitive Science Society*. Hillsdale, NJ: Erlbaum, pp. 422-7.

Free personality test. [online] personalitymax [15.12.2021] Retrieved from: https://personalitymax.com/personality-test/

Frith, U. (1999). Paradoxes in the definition of dyslexia. In *Dyslexia*, Vol. 5, pp. 192-214.

Gajar, A. H. (1987). Foreign language learning disabilities; the identification of predictive and diagnostic variables. In *Journal of Learning disabilities*, Vol. 20, No. 6, pp. 327-330.

Ganschow, L.; Sparks, R. (1995). Effects of direct instruction in Spanish phonology on the native-language skills and foreign-language aptitude of at-risk foreign-language learners. In *Journal of Learning Disabilities*, Vol. 28, No. 2, pp. 107-120.

Ganschow, L.; Sparks, R.; Javorsky, J. (1998). Foreign language learning difficulties: A historical perspective. In *Journal of Learning Disabilities*, Vol. 31, No. 3, pp. 248-258.

Gardner, H. & Hatch, T. (1989). Educational Implications of the Theory of Multiple Intelligences. In *Educational Reader*, Vol. 8, No. 8, November 1989, pp. 4-10.

Goswami, U. (2000). Phonological representations, reading development and dyslexia: Towards a cross-linguistic theoretical framework. In *Dyslexia*, Vol. 6, pp. 133-151.

Gromisch, E. S. (2011). Short-Term Memory. In: Kreutzer, J. S.; DeLuca, J.; Caplan, B. (eds). (2011). *Encyclopedia of Clinical Neuropsychology.* New York: Springer.

Habbib, M. The neurological basis of developmental dyslexia: An overview and working hypothesis. In *Brain*, Vol.123, 2000. 2373-2399p.

Hankerová, K. *Private archive of dyslexic learners' written works.*

Harel, S.; Nachson, I. (1997). Dichotic listening to temporal tonal stimuli by good and poor readers. In *Perceptual and Motor Skills*, Vol. 84, pp. 467–73.

Hinshelwood J. (1917). *Congenital word-blindness*. London: Lewis.

Ho, C. S. H.; Fong, K. M. (2005). "Do Chinese Dyslexic Children Have Difficulties Learning English as a Second Language?" In *Journal of Psycholinguistic Research*, Vol. 34, No. 6, pp. 603-18.

Huddleston, R.; Pullum, G. (2008). *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.

Hulme, C.; Snowling, M. (2009). *Developmental Disorders of Language Learning and Cognition*. Oxford/Malden: Wiley-Blackwell. International Dyslexia Association. *Multisensory Structured Language Teaching Fact Sheet*. [online] International Dyslexia Association [10.11.2021] Retrieved from: https://dyslexiaida.org/multisensory-structured-language-teaching-fact-sheet/

Hutchinson, T. (2013). Project 1. Students' Book. Fourth edition. Oxford: Oxford University Press.

International Dyslexia Association (2009). *About dyslexia-definition*. [online] International Dyslexia Association. [10.10.2021] Retrieved from: http://www.dyslexia-ca.org.

Javorčíková, J. *Private archive of dyslexic learners' written works.*

Jolly Reading. *Blending.* [online] Jolly Reading. Educational products [15.12.2021]. Retrieved from: http://jollyreading.com/3-blending/

Jolly Reading. *Identifying the Sounds in Words.* [online] Jolly Reading. Educational products [15.12.2021]. Retrieved from: http://jollyreading.com/4-identifying-the-sounds-in-words/

Kintsch, W. (1998). *Comprehension: A Paradigm for Cognition*. Cambridge, UK: Cambridge University Press.

Kiss, T.; Lin, Ch. (2016). In *Malaysian Journal of ELT Research*, Vol. 12, No. 1, pp. 37-59.

Klaus, B. (1985). Doctor fights for dyslexia theory. In *the New York Times*. Retrieved from: https://www.nytimes.com/1985/11/24/nyregion/doctor-fights-for-dyslexia-theory.html

Knightley, K. *Made by Dyslexia Interview*. [online] youtube.com [15.12.2021] Video, retrieved from https://www.youtube.com/watch?v=OLb6ehPPc4E.

Konstam, E.; Neuhaus, D. (2011). Decoding Skills. In: Goldstein, S.; Naglieri, J. A. (eds). *Encyclopedia of Child Behavior and Development.* Boston, MA: Springer.

Kormos, J., & Smith, A. M. (2012). *Teaching languages to students with specific learning differences*. Bristol, UK: Multilingual Matters.

Krashen, S. (1982). *Principles and Practice in Second Language Acquisition*. USA: Pergamon Press.

Krasowicz-Kupis, G.; Bryant, P. E. (2004). Świadomość jezykowa dzieci polskich I angielskich a czytanie [Linguistic awareness of Polish and English children vs. reading]. In M. Bogdanowicz, M.; Smoleń, M. (eds). *Dysleksja w kontekście nauczania jezyków obcych [Dyslexia and Foreign Language Teaching]* (pp. 36-53). Gdańsk: Wydawnictwo Harmonia.

Krasowicz-Kupis, G. (2006). Dysleksja a rozwój mowy i jezyka [Dyslexia vs. speech and language development]. In G. Krasowic-Kupis (ed.). *Dysleksja rozwojowa. Perspektywa psychologiczna [Developmental Dyslexia. Psychological Perspective]*. Gdańsk: Wydawnictvo Harmonia.

Krasowicz-Kupis, G. (2008). *Psychologia dysleksji [Psychology of Dyslexia]*. Warszawa: Wydawnictwo Naukowe PWN.

Kuczynski, B.; Kolakowsky-Hayner, S. A. (2011). Auditory Discrimination. In: Kreutzer, J. S.; DeLuca, J.; Caplan, B. (eds). *Encyclopedia of Clinical Neuropsychology*. New York: Springer.

Kussmaul, A. (1877). Diseases of the nervous system and disturbances of speech**.** In H. von Ziemssen (Ed.) *Cylopedia of the practice of medicine* (pp.770–778). New York: William Wood, 1877.

Levine, M. D. (2002). *A Mind at a Time.* New York: Simon and Schuster.

Lidiasari, Y.; Supardi, I. (2017). Using Scrabble Game in Improving Students' Vocabulary Mastery of SMP Negeri Jawai. In *Jurnal Pendidikan dan Pembelajaran*, Vol.6, No. 12 [online] [15.12.2021] Retrieved from: file:///C:/Users/Kika/Downloads/23217-65916-1-PB.pdf

Lloyd, S. *Vowels and Consonants*. [online] Teaching Children to Read and Write. [15.2.2021] Retrieved from: https://tcrw.co.uk/materials-linked-to-phonic-knowledge/vowels-how-they-work/part-1-vowels-and-consonants/

Lloyd, S.; Wernham, S. (2010). *Phonics Teacher's Book.* England: Jolly Learning Ltd

Lloyd, S.; Wernham, S. (2012). *The Phonics Handbook. A Handbook for Teaching Reading, Writing and Spelling.* (4th edition). England: Jolly Learning Ltd.

Łodej, M. (2016). *Dyslexia in First and Foreign Language Learning. A Cross-Linguistic Approach*. Cambridge: Cambridge Scholars Publishing.

Londhe, V. A.; Marmor, A. K.; Abhay, D. S.; Aaron, C. B. (2007). *Blueprints Clinical Cases in Pediatrics*. Philadelphia, PA: Lippincott Williams and Wilkins.

Lovegrove, W.J.; Bowling, A. Badcock, B.; Blackwood, M. (1980). Specific reading disability: differences in contrast sensitivity as a function of spatial frequency. In *Science*, 210: 439-40.

Lundberg, I.; Miller-Guron, L. (2000). Dyslexia and second language reading: A second bite at the apple? In *Reading and Writing*, Vol. 12, No. 1, pp. 41-61.

Lundberg, I.; Hoien, T. (2001). Dyslexia and phonology. In Fawcett, A. J. (ed.). *Dyslexia. Theory and Good Practice* (pp. 109-123). London: Whurr.

Lundberg, I. (2002). Second language learning and reading with additional load of dyslexia. In *Annals of Dyslexia*, Vol. 52, pp. 165-187.

Martin, J.; Lovergrove, W. (1987). Flicker contrast sensitivity in normal and specifically-disabled readers. In *Perception*, Vol. 16, pp. 215-221.

McIntyre, C. W. and Pickering, J. S. (1995). *Clinical studies of multisensory structured language education for students with dyslexia and related disorders*. Salem, OR: IMSLEC. Retrieved from: http://www.ldonline.org/article/6332/

Merriam-Webster dictionary. [online] Retrieved from: *https://www.merriam-webster.com/dictionary/alexia*

Miller-Guron, L.; Lundberg, I. (2000). "Dyslexia and Second Language Reading: A Second Bite at the Apple?" In *Reading and Writing*, Vol.12, pp. 41-61.

Minnesota Literacy Council. *Multisensory Activities to Teach Reading Skills*. [online] Minesora Literacy Council. [13.11.2021] Retrieved from: https://mnliteracy.org/sites/default/files/multisensory_techniques_to_teach_reading_skills.pdf

Moody, S. (2004). *Dyslexia: A Teenager's Guide*. London: Vermilion.

Moody, S. (2007). *Dyslexia: Surviving and Succeeding at College*. London: Routledge.

Nicolson, R.I., Fawcett, A.J. (2007). Procedural learning difficulties: Reuniting the developmental disorders? In *Trends in Neurosciences*, Vol. 30, No.4, pp. 135-141.

Nicolson, R.I., Fawcett, A.J. (2008). *Dyslexia, Learning and the Brain*. Cambridge, Mass: MIT Press.

Nijakowska, J. (2010). *Dyslexia in the Foreign Language Classroom*. Bristal: Multilingual Matters.

Nijakowska, J. (2015). Foreign language teachers' professional training needs on inclusive practices and dyslexia: the DysTEFL2 project's findings. In *ICERI2015 Proceedings*.1775-1784. IATED Publications.

Nijakowska, J. et al. (2016). *Dyslexia for Teachers of English as a Foreign Language*. Poland: University of Lodz. Retrieved from: http://www.dystefl2.uni.lodz.pl

Nijakowska, J.; Kormos, J. (2016). Foreign language teacher training on dyslexia: DysTEFL resources. In *Multilingualism, literacy and dyslexia*, edited by G. Reid and L.Peer. London: Routledge.

Obrzut, J. E. (1988). Deficient lateralization in learning-disabled children: developmental lag or abnormal cerebral organization? In Molfese DL, Segalowitz SJ, editors. *Brain lateralization in children: developmental implications*. New York: Guilford Press; 1988.

Orton-Gillingham Academy. *What is the Orton-Gillingham Approach?* [online] Orton-Gilingham Academy [5.11.2021] Retrieved from: https://www.ortonacademy.org/resources/what-is-the-orton-gillingham-approach/

Orton-Gillingham Academy. *Teaching Grammar to Those with Dyslexia*. [online] Orton-Gillingham Academy. [5.11.2021] Retrieved from: https://ortongillinghamonlinetutor.com/teaching-grammar-to-those-with-dyslexia/

Orton, S. T. *Wordblindness in School Children and Other Papers on Strephosymbolia :(specific Language Disability-dyslexia)* 1925-1946 (No. 2). Maryland: Orton Society.

Paulesu, E.; Demonet, j. F.; Fazio, F.; McCrory, E.; Chanoine, V.; Brunswick, N.; Cappa, S. F.; Cossu, G.; Habib, M.; Frith, C. D.; Frith, U. (2001). "Dyslexia: Cultural Diversity and Biplogical Unity." In *Science*, Vol. 291, No. 5511, pp. 2165-7.

Paulesu, E.; Danelli, L.; Berlingeri, M. (2014). Reading the dyslexic brain: Multiple dysfunctional routes revealed by a newmeta-analysis of PET and fMRI activation studies. In *Frontiersin Human Neuroscience*, Vol. 8, p. 830.

Perfetti, C. (2007). Reading ability: Lexical quality to comprehension. In *Scientific Studies of Reading*, Vol. 8, pp. 293-304.

Pumfrey, P. D.; Reason, R. (1992). *Specific Learning Difficulties Dyslexia: Challenges and Responses.* London: NFER-Routledge.

Quizlet [online] quizlet.com [10.12.2021] Retrieved from: https://quizlet.com/

Rainger, P. (2003). *A Dyslexic Perspective on E-content Accessibility. Disabled people's International.* Retrieved from: http://www.techdis.ac.uk/seven/papers/.

Ramus, F., Pidgeon, E., Frith, U. (2003). The relationship between motor control and phonology in dyslexic children. In *Journal of Child Psychology and Psychiatry*, Vol. 44, pp. 712-722.

Red Words in Action. [online] youtube.com [15.12.2021] Retrieved from: https://www.youtube.com/watch?v=ZJYHNjGaKYw&ab_channel=BSEBears

Reeves, J. W. (2015). *Thinking about thinking: Studies in the background of some psychological approaches.* London: Routledge.

Richland, K. (2021). *Learning Differences, Learning Disabilities, Multisensory Teaching, Orton-Gillingham, Spelling, Structured Literacy*. Retrieved from: https://pridereadingprogram.com/what-is-orton-gillingham/

Romero, Y. (2020). Lazy or Dyslexic: A Multisensory Approach to Face English Language Learning Difficulties. In *English Language Teaching*, Vol. 13, No. 5.

Rose, J. (2006). *Independent review of the teaching of early reading.* Nottingham: Department for Education and Skills.

Saiegh-Haddad, E. (2007). Epilinguistic and metalinguistic phonological awareness may be subject to different constraints: Evidence from Hebrew. In *First Language,* Vol. 27, pp. 358-405.

Senanayake, Ch. (2021). Teaching English Vocabulary as a Second Language To Dyslexic Students: WITH SPECIAL REFERENECE TO MULTI-SENSORY PEDAGOGY. In *International Journal of Scientific and Research Publications*, Vol. 11, No. 2.

Shams, L., Seitz, A.R. (2008). Benefits of multisensory learning. In *Trends in Cognitive Sciences*, Vol. 60, pp. 411- 417.

Schmalz, X.; Marinus, E.; Coltheart, M.; Castles, A. (2015). Getting to the bottom of orthographic depth. In *Psychonomic Bulletin & Review*, Vol. 22, pp. 1614-1629.

Schneider, E. (1999). *Multisensory Structured Metacognitive Instruction. An Approach to Teaching a Foreign Language to at-Risk Students.* Frankfurt am Main: Peter Lang.

Snowling, M.J. (2001). Developmental dyslexia. In *Current Paediatrics*, Vol. 11, pp. 10-13

Snowling, M. J. (2006). "Language Skills and Learning to Read: the Dyslexia Spectrum." In *Dyslexia, Speech and Language: A Practitioner's Handbook*, edited by M. J. Snowling and J. Stackhouse, 1-14. London: Whurr Publishers.

Sparks, R.; Ganschow, L.; Pohlman, J. (1989). Linguistic coding deficits in foreign language learners. In *Annals of Dyslexia*, Vol. 39, pp. 179-195.

Sparks, R.; Ganschow, L; Kenneweg, S.; Miller, K. (1991). Use of an Orton-Gillingham approach to teach a foreign language to dyslexic /learning-disabled students: Explicit teaching of phonology in a second language. In *Annals of Dyslexia*, Vol. 41, pp. 96-118.

Sparks, R.; Patton, J.; Ganschow, L.; Humbach, N. Javorsky, J. (2006). Native language predictions of foreign language proficiency and foreign language aptitude. In *Annals of Dyslexia*, Vol. 56, No. 1, pp. 129-160.

Stansfield, Ch. W.; Reed, D. (2004). Using the Modern Language Aptitude Test to Identify a Foreign Language Learning Disability: Is it Ethical? In *Language Assessment Quarterly*, Vol. 1, No. 2&3, pp. 161-176

Stein, J.; Walsh, V. (1997). To see but not to read; the magnocellular theory of dyslexia. In *Trends Neuroscience*, Vol. 20, pp. 147-52.

Valdois, S.; Gérard. C.; Vanault, P.; Dugas, M. (1995). Peripheral developmental dyslexia: a visual attentional account? In *Cognitive Neuropsychology*, Vol. 12, pp. 31–67

Van der Leij, L. A.; Morfidi, E. (2006). "Core Deficits and Variable Differences in Dutch Poor Readers Learning English." In *Journal of Learning Disabilities*, Vol. 39, No. 1, pp. 74-90.

Van Witteloostuijn, M., Boersma, P., Wijnen, F., & Rispens, J. (2021). Grammatical performance in children with dyslexia: The contributions of individual differences in phonological memory and statistical learning. In *Applied Psycholinguistics*, Vol. 42, No. 3, pp. 791-821.

Vellutino, F. R.; Fletcher, J. M.; Snowling, M. J.; Scanlon, D. M. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? In *Journal of Child Psychology and Psychiatry*, Vol. 45, No.1, pp. 2-40.

Verhoeven, L.; Perfetti, Ch.; Pugh, K. (2019). *Developmental Dyslexia across Languages and Writing Systems*. Cambridge: Cambridge Uniuversity Press.

What is it like to have dyslexia? [online] youtube.com [15.12.2021] Video, retrieved from: https://www.youtube.com/watch?v=sLWBqz_GrRQ

Wise, J. C.; Sevcik, R. A.; Morris, R. D.; Lovett, M. W.; Wolf, M. (2007). The growth of phonological awareness by children with reading disabilities: A result of semantic knowledge or knowledge of grapheme-phoneme correspondences? In *Scientific Studies of Reading*, Vol. 11, No. 2, pp. 151-164.

Wolf, M.; Bowers, P. G. (1999). “The Double-deficit Hypothesis for Developmental Dyslexia.” In *Journal of Educational Psychology*, Vol. 91, No. 3, pp. 415-38.

Wydell, T. N.; Butterworth, B. (1999). “A case study of an English-Japanese bilingual with monolingual dyslexia.” In *Cognition*, Vol. 70, pp. 273-305.

Wydell, T. N.; Kondo, T. (2003). “Phonological Deficit and the Reliance on Orthographic Approximation for Reading: a Follow Up Study on an English-Japanese Bilingual with Monolingual Dyslexia.” In *Journal of Research in Reading*, Vol. 26, No. 1, pp. 33-48.

Ziegler, J C.; Perry, C.; Ma-Wayatt, A.; Ladner, D.; Schulte-Korne, G. (2003). “Developmental Dyslexia in Different Languages: Language-specific or Universal?” In *Journal of Experimental Child Psychology*, Vol. 86, No. 3, pp. 169-93.

Appendix 1

Cards: Who am I?

He studied dyslexia from the educational point of view. In 1869 he studied the effects of individual differences on different learning difficulties	Sir Francis Galton
The first physician who dealt with the question of developmental dyslexia. He described the case of a 14-year old boy who had good intellectual capacities but failed to learn to read.	Pringle Morgan
He was a Glasgow eye surgeon who attempted to describe the symptoms of dyslexia. He stated that dyslexia is of neurological origin and noticed that dyslexic children showed symptoms which were typical for visual word blindness.	James Hinshelwood
He is known for his lateralization theory of dyslexia. He started using the term strephosymbolia to refer to dyslexia but later adopted the term alexia which he used to refer to children who had problems with reading.	Samuel Orton

Appendix 2

Cards: Which areas do I have problems in?

poor accuracy while reading; low speed while reading; poor spelling;
poor comprehension of words, especially long words; problems with pronouncing long words

writing and copying a text accurately; following and understanding instructions; filling in different forms; taking notes; structuring written assignments

copying from the board correctly; remembering information; remembering their ideas while speaking, writing, listening or reading; remembering numbers such as dates and names; doing several tasks at the same time, such as taking notes while listening to the teacher; repeating long words and phrases

copying from the board correctly; remembering information; remembering their ideas while speaking, writing, listening or reading; writing and copying a text accurately; following and understanding instructions

filling in different forms; taking notes; structuring written assignments; copying a text accurately; following and understanding instructions

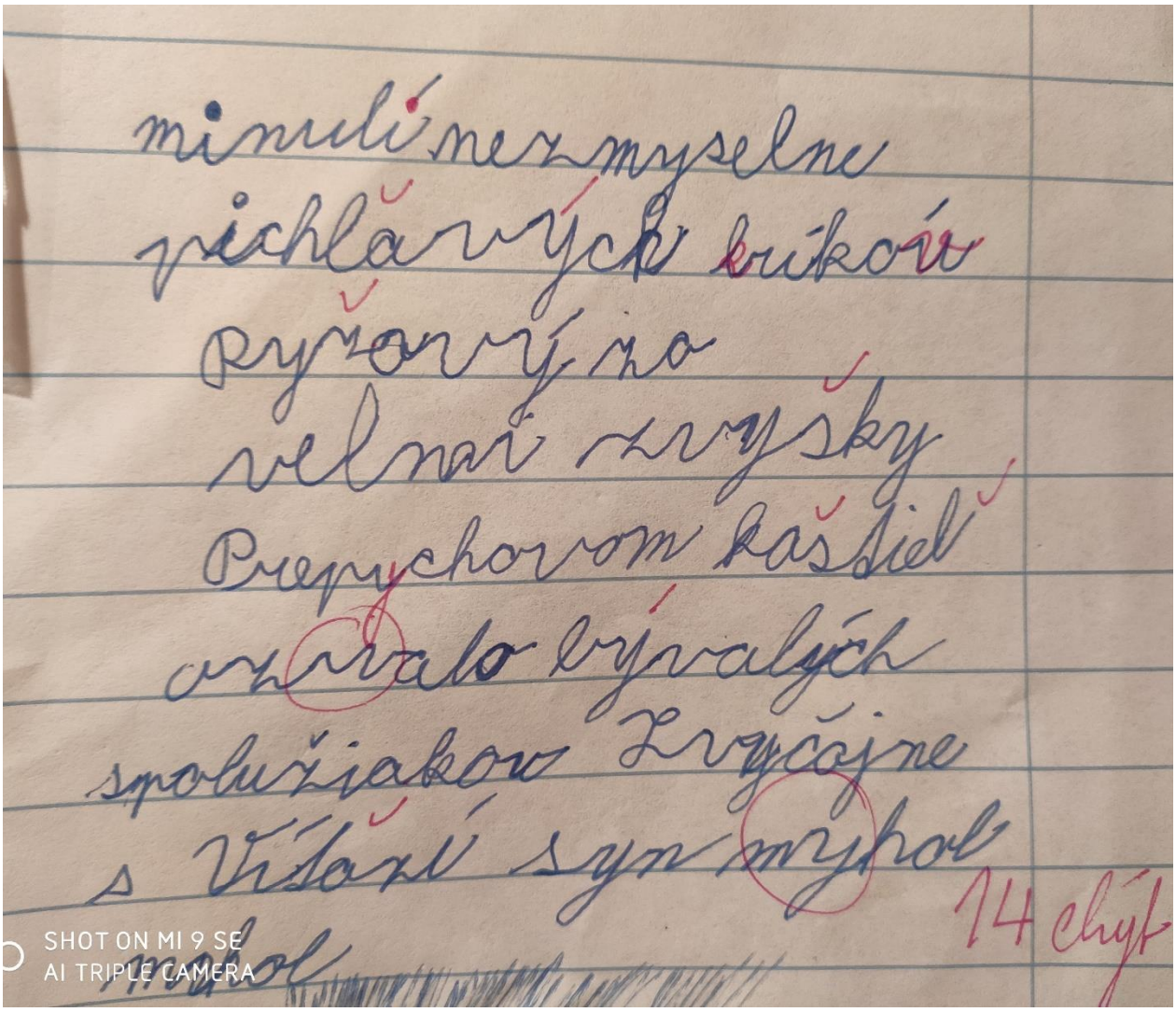
poor accuracy while reading; low speed while reading; poor spelling; remembering numbers such as dates and names; doing several tasks at the same time, such as taking notes while listening to the teacher; repeating long words and phrases

low speed while reading; poor spelling;
poor comprehension of words, especially long words; doing several tasks at the same time, such as taking notes while listening to the teacher; repeating long words and phrases

remembering their ideas while speaking, writing, listening or reading; remembering numbers such as dates and names; filling in different forms; taking notes; structuring written assignments;

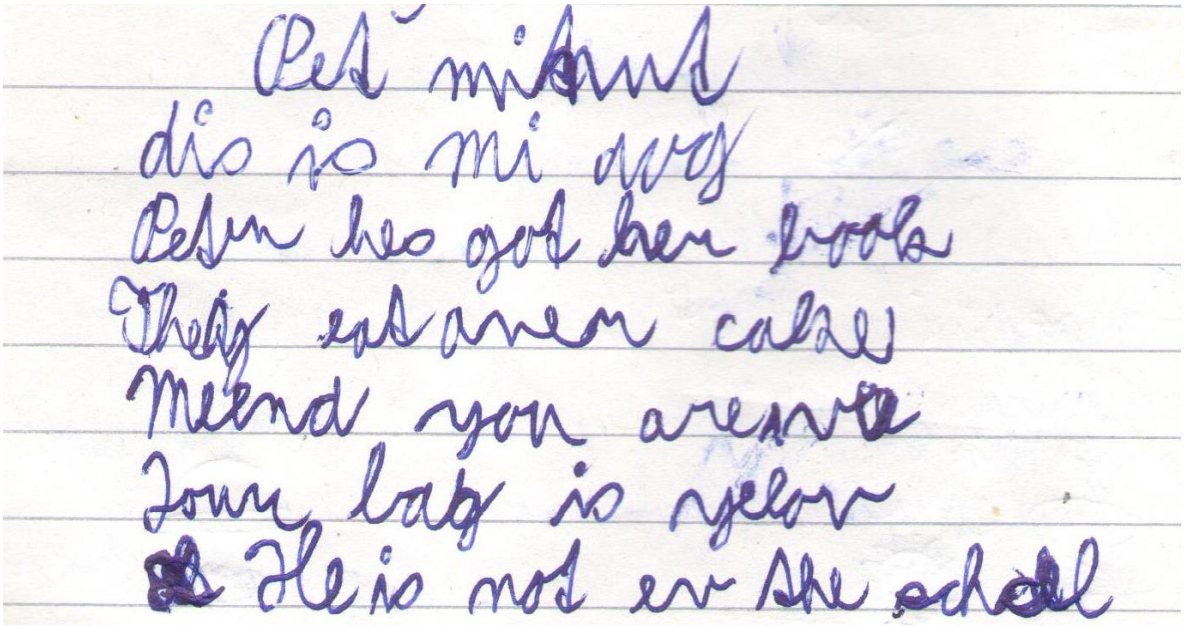
Appendix 3

A dyslexic learner's dictation in Slovak:

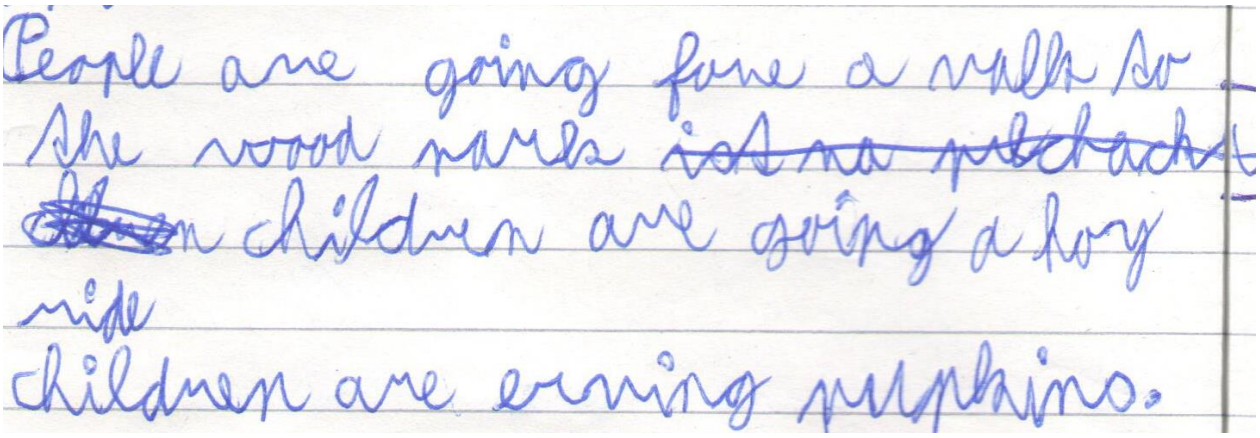


(Javorčíková's private archive)

A dyslexic learner's dictation in English:



(Hankerová's private archive)

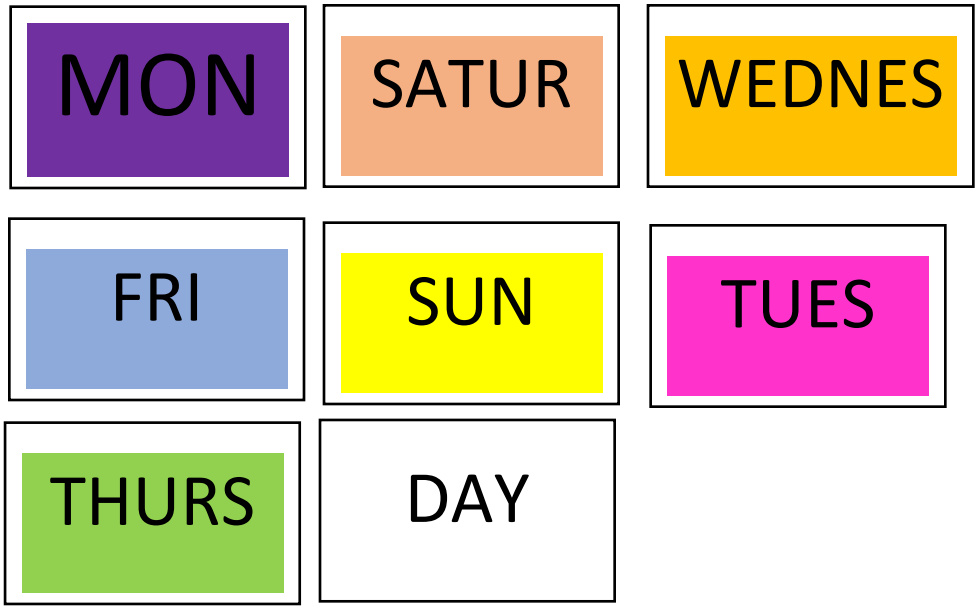


(Hankerová's private archive)

Appendix 4

5.4 Days of the Week

Cards



Task: Fill in the missing days of the week according to the numbers. The colours will help you.

1. The first (1st) day of the week is _____ .
2. The second (2nd) day of the week is _____ .
3. The third (3rd) day of the week is _____ .
4. The fourth (4th) day of the week is _____ .
5. The fifth (5th) day of the week is _____ .
6. The sixth (6th) day of the week is _____ .
7. The seventh (7th) day of the week is _____ .

5.5 My family – a family tree

Fill in the missing information about your family members.

My grandmother is …….. . She's …….. years old.

My grandfather is …….. . He's …… years old.

My mother is …….. . She's …… years old.

My father is …… . He's …….. years old.

My sister is …… . She's …….. years old.

My brother is …….. . He's …….. years old.

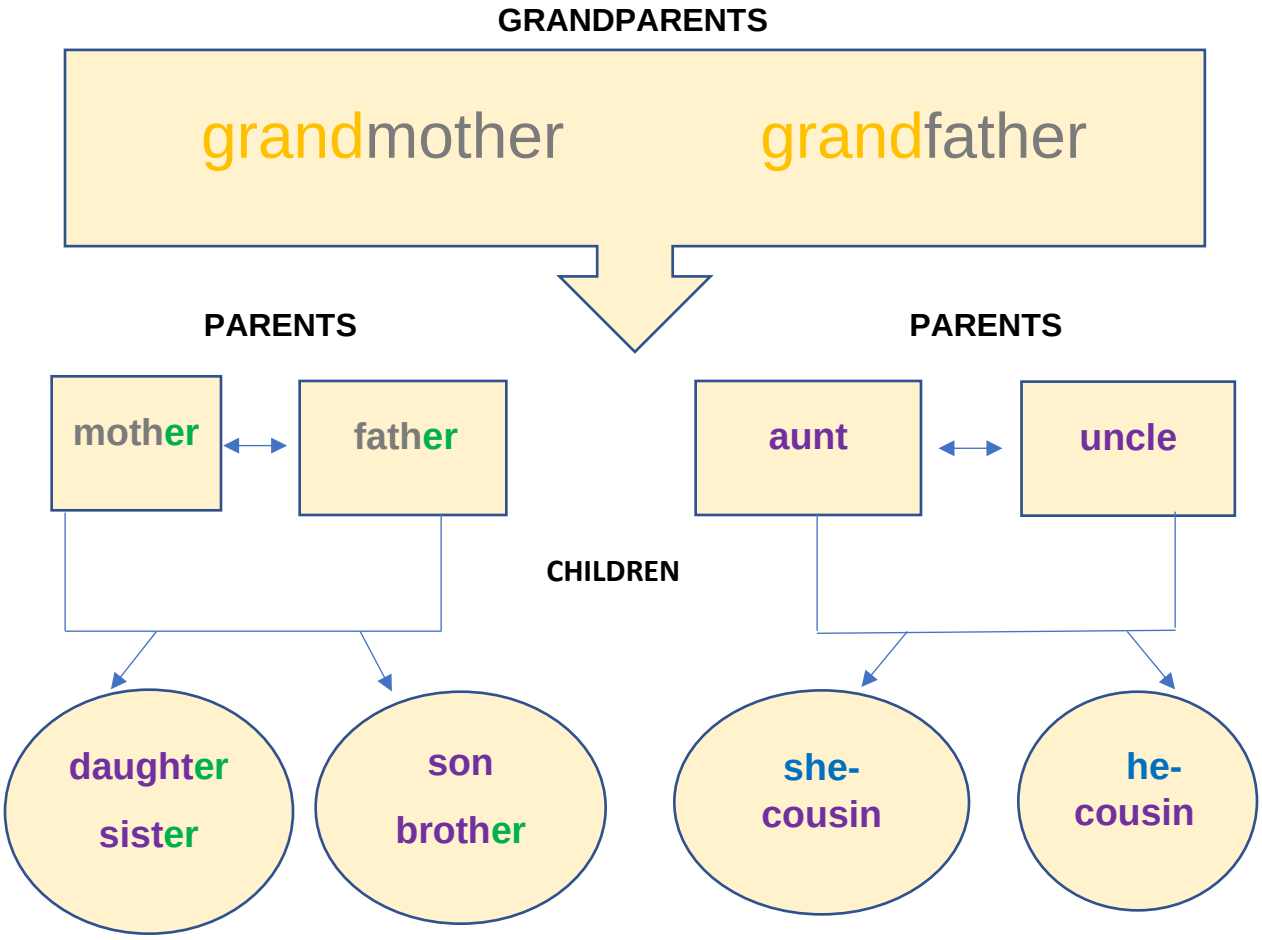
My aunt is …… . She's …….. years old.

My uncle is …… . He's …… years old.

My she-cousin is …… . She's ……..…..years old.

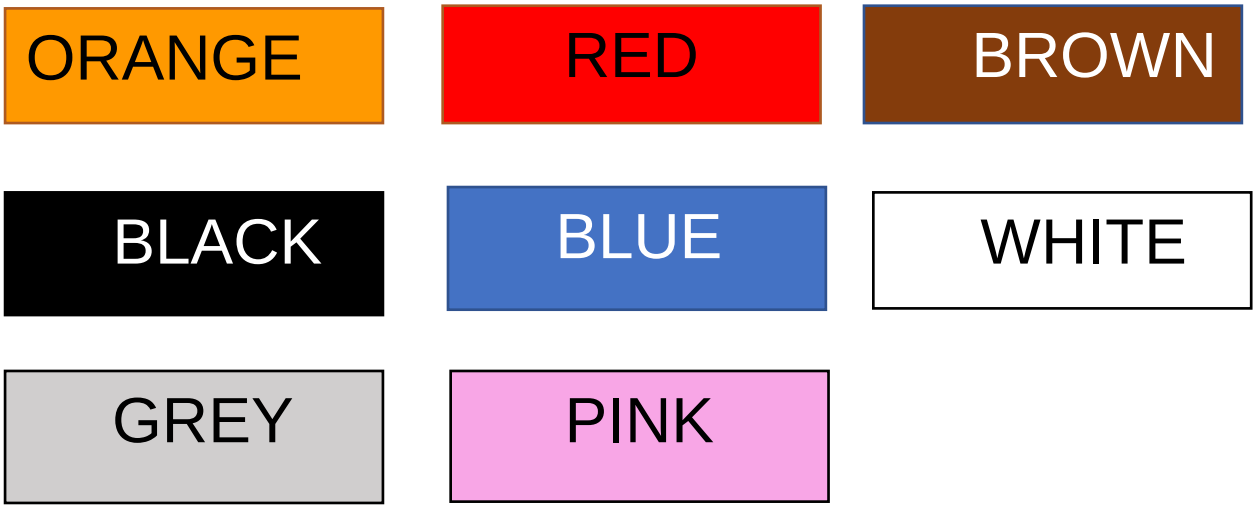
My he-cousin is …… . He's …… years old.

A FAMILY TREE



5.6 Colours

Set of coloured cards



Fill in the sentences according to the picture on page 31 (task 5). Cut out the following cards and use them to fill in the sentences.

ORANGE	RED	BLACK
BROWN	BLUE	WHITE
GREY	PINK	

1. Mikey has got a _____ T-shirt in picture

A, but he has got a _____ T-shirt in picture B.

2. Mikey has got a _____ skateboard in picture A, but he has got a _____ skateboard in picture B.
3. Mikey has got a _____ watch in picture

A, but he has got a _____ watch in picture B.

4. Mikey has got a _____ mobile in picture

A, but he has got a _____ mobile in picture B.

5. Mikey has got a _____ radio in picture

A, but he has got a _____ radio in picture B.

5.7 A Mindmap – Describing body parts (people, animals)

Task: Place the words in the boxes into the group in which they belong (people and animals); some may belong to both groups. Colour the words with the appropriate colour.

(1) Body parts: mouth, hand, body, arm, ear (plural ears), head, foot (plural feet), eye, leg (plural legs), nose, fur, beak, feathers, tail, tooth (plural teeth), whiskers, wing (plural wings)

people

animals

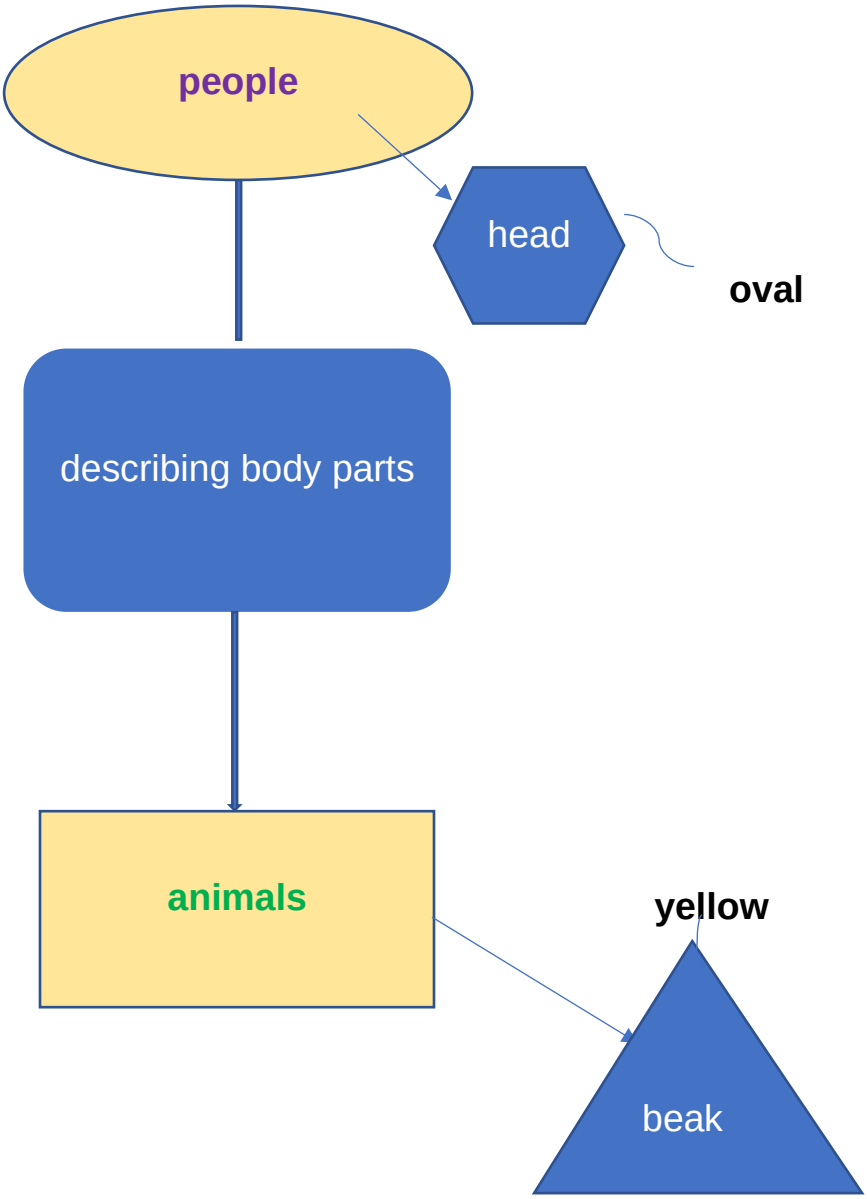
(2) Describing body parts: large, small, big, long, short, four, two, blue, green, brown, grey, black, pink, yellow, thick, soft, oval, round

people

animals

Fill in the missing parts of the mindmap (look at the example).

A sample mindmap (basic framework to be completed)



Appendix 5

6.4 Descovering Indefinite Articles

a	an
board	apple
picture	orange
house	umbrella
man	cat

woman	pen
pencil	girl
bag	watch
boy	door
chair	dog

6.5 Which Indefinite Article – a or an?

A, Circle the initial letter of the following words. Use blue for initial consonant sounds and green for initial vowel sounds in the following words.

B, Fill in a and an.

_____ man

_____ umbrella

_____exercise book

_____ girl

_____ cat

_____ orange

_____ pen

_____ picture

_____ house

_____ door

_____ boy

_____ watch

_____ apple

_____ pencil

_____ desk

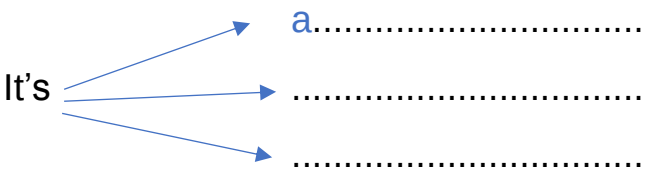
_____ chair

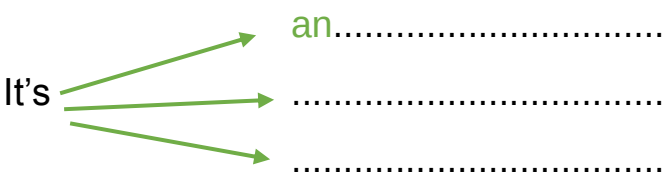
_____ man

_____ bag

6.6 Indefinite articles in sentences

Fill in the sentences with your own words. Do not forget to use the correct indefinite articles.





6.7 Cardinal Numbers

6.8 A Game with Numbers

eleven	11
twelve	12
thirteen	13
fourteen	14
fifteen	15
sixteen	16
seventeen	17
eighteen	18
nineteen	19

twenty	20
thirty	30
forty	40
fifty	50
sixty	60
seventy	70
eighty	80
ninety	90

6.9 Which number is it?

Look at the numbers below and choose the correct word for each number. Then write the numbers on the line.

30 .....

a, thirteen b, eleven c, thirty

15 .....

a, nineteen b, fifteen c, fifty

14 .....

a, fourteen b, forty c, thirteen

80 .....

a, eighteen b, ninety c, eighty

70 .....

a, fifteen b, seventeen c, seventy

16 .....

a, sixteen b, sixty c, nineteen

12 .....

a, twenty b, thirty b, twelve

6.10 Singular and Plural Forms, can you find them both?

orange	orange
watch	watch
glass	glass
box	box
desk	desk
window	window

boy	boy
girl	girl
apple	apple
bag	bag
umbrella	umbrella
man	woman

child	person

11	12	13	14
15	16	17	18
19	20	2	3
4			

a	a	a

a	a	a

a	a	a

a	a	a

an	an	an

s	s	s	s

s	s	s	s

es	es	es

men

women

children

people

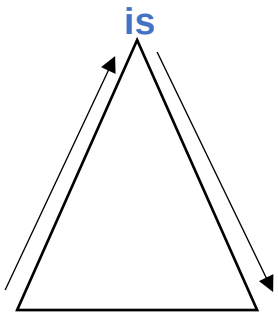
6.11 What is the plural form of the word?

Fill in a/an or -s/-es. Write the plural forms on the line.

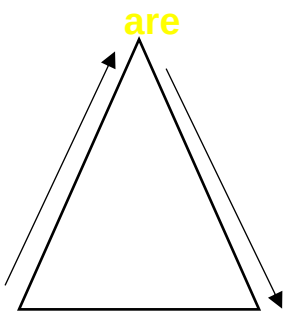
..... orange	two orange.....	_____
..... watch	three watch.....	_____
..... apple	ten apple.....	_____
..... glass	two glass.....	_____
..... box	two box.....	_____
..... cat	four cat.....	_____
..... umbrella	two umbrella.....	_____
..... dog	five dog.....	_____
..... house	two house.....	_____
..... pencil	three pencil.....	_____
..... desk	two desk.....	_____

6.12 There is/there are sentences

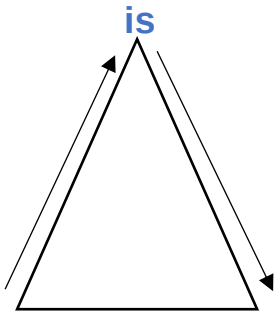
Look at the picture on page 11 (Project 1) and describe what is in the picture. Fill in the following sentences with the appropriate information.



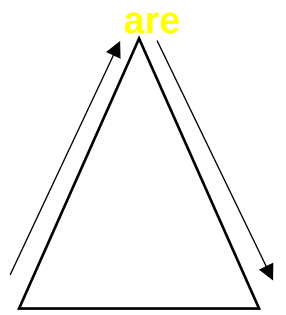
There a .....



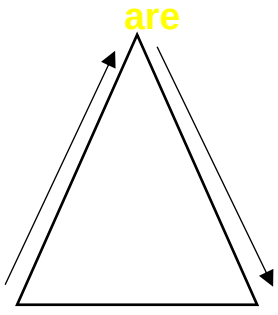
There .....



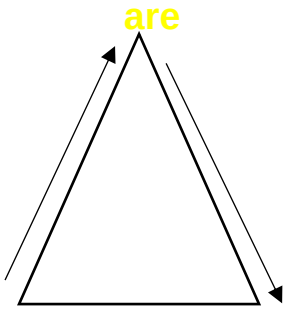
There a .....



There .....



There .....



There .....

6.13 There is, there are, who knows why?

Put the words in the correct order to form sentences.

Example: is There dog a __There is a dog. _____

organges two are There ___There are two oranges._____

1.six are There apples

_____

2. an There umbrella is

_____

3. three chairs There are

_____

4. a dog is There.

_____

5. There glasses four are.

_____

6. watches two are There.

_____

6.14 What is in my room? What is in my friend's room?

Describe your own room. Use there is/are.

You can use these words:

chair, table, book, bag, pen, pencil, watch, picture, window, box

There .....

There .....

There .....

There .....

There .....

There .....

Describe your partner's room. Use there is/are.

There .....

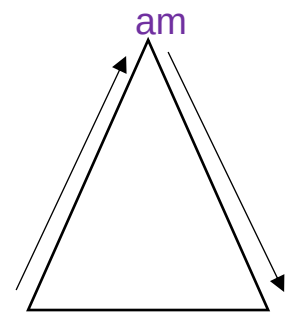
There .....

There .....

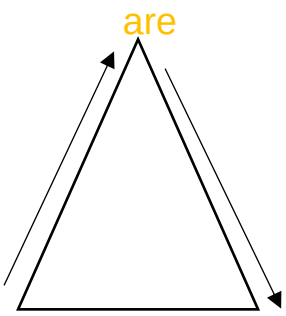
There .....

6.15 Where are you from?

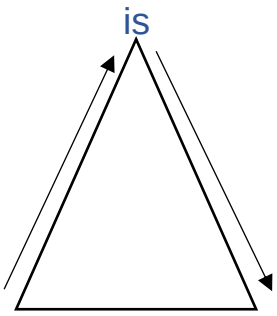
Fill in the following sentences with the appropriate information.



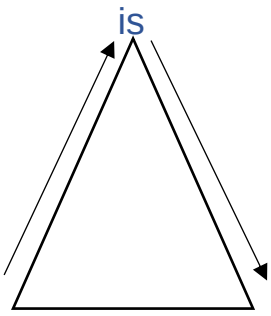
I from .....



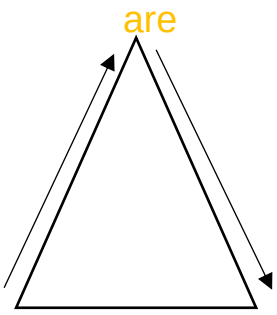
You from .....



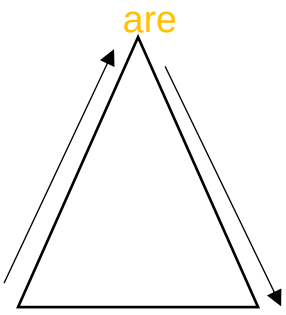
He from .....



She from .....



We from .....



They from .....

6.16 Guess the country I am from

There is…

Big Ben

Cambridge university

Queen Elizabeth II.

Bath

There is…

Great Wall

The Terracotta Army

Hong Kong

the Summer Palace in Beijing

There is…

Colosseum

The Grand Canal in Venice

Pompeii

Leaning Tower of Pisa

There is…

Barcelona

Valencia

Santiago de Compostela

Madrid

There is/are…

Grand Canyon

Niagara Falls

Statue of Liberty

White House

There is/are …

Sydney Opera House

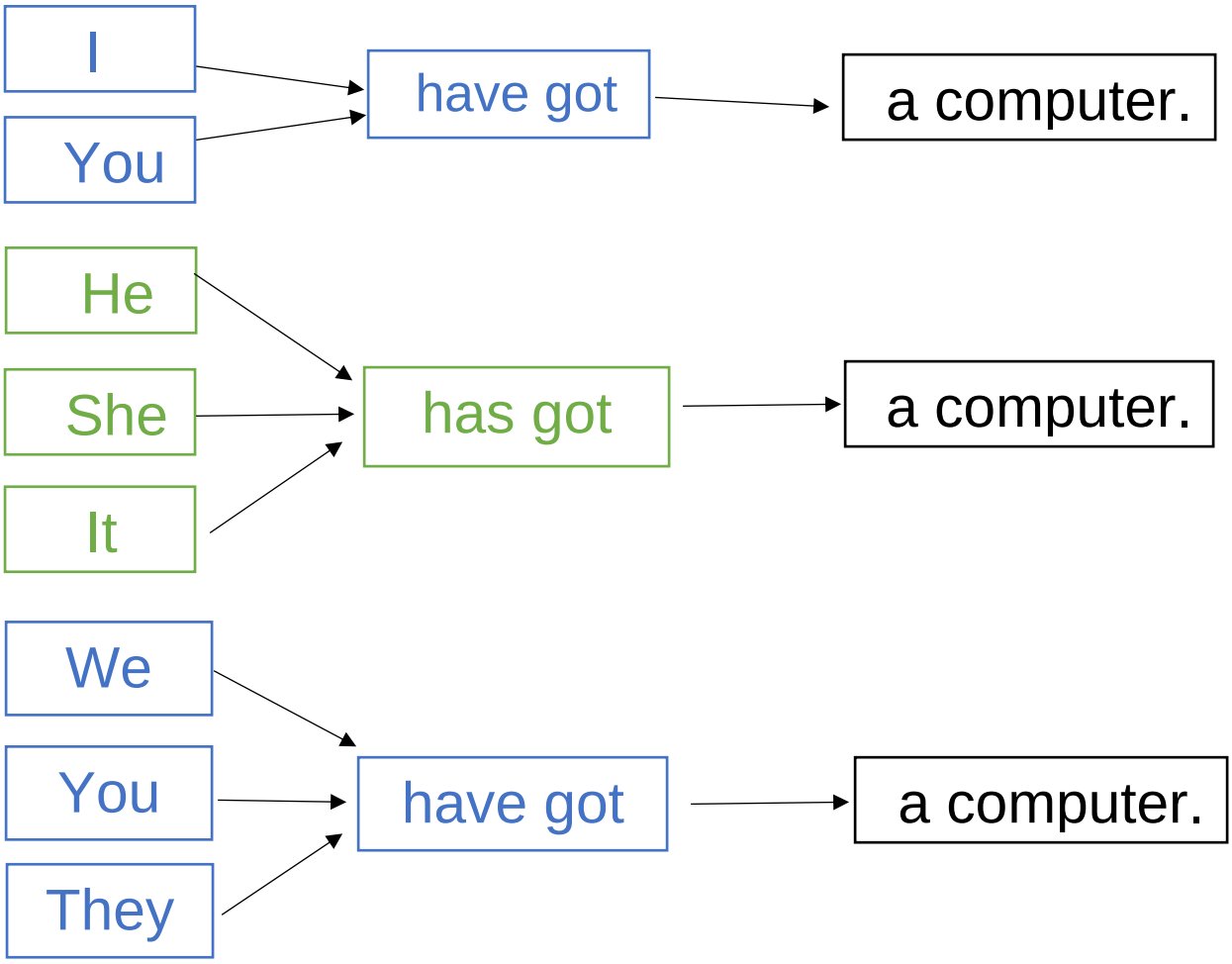
Victoria

kangaroo

Kangaroo Island

6.17 I have got a computer but he has got a computer.

Task 1 Read the sentences and pay attention to the verb „have got“.



Task 2 Use the cards with „have got“ and „has got“ and fill them in the following sentences.

We _____ a games console.

He _____ a television.

They _____ a radio.

I _____ a mobile phone.

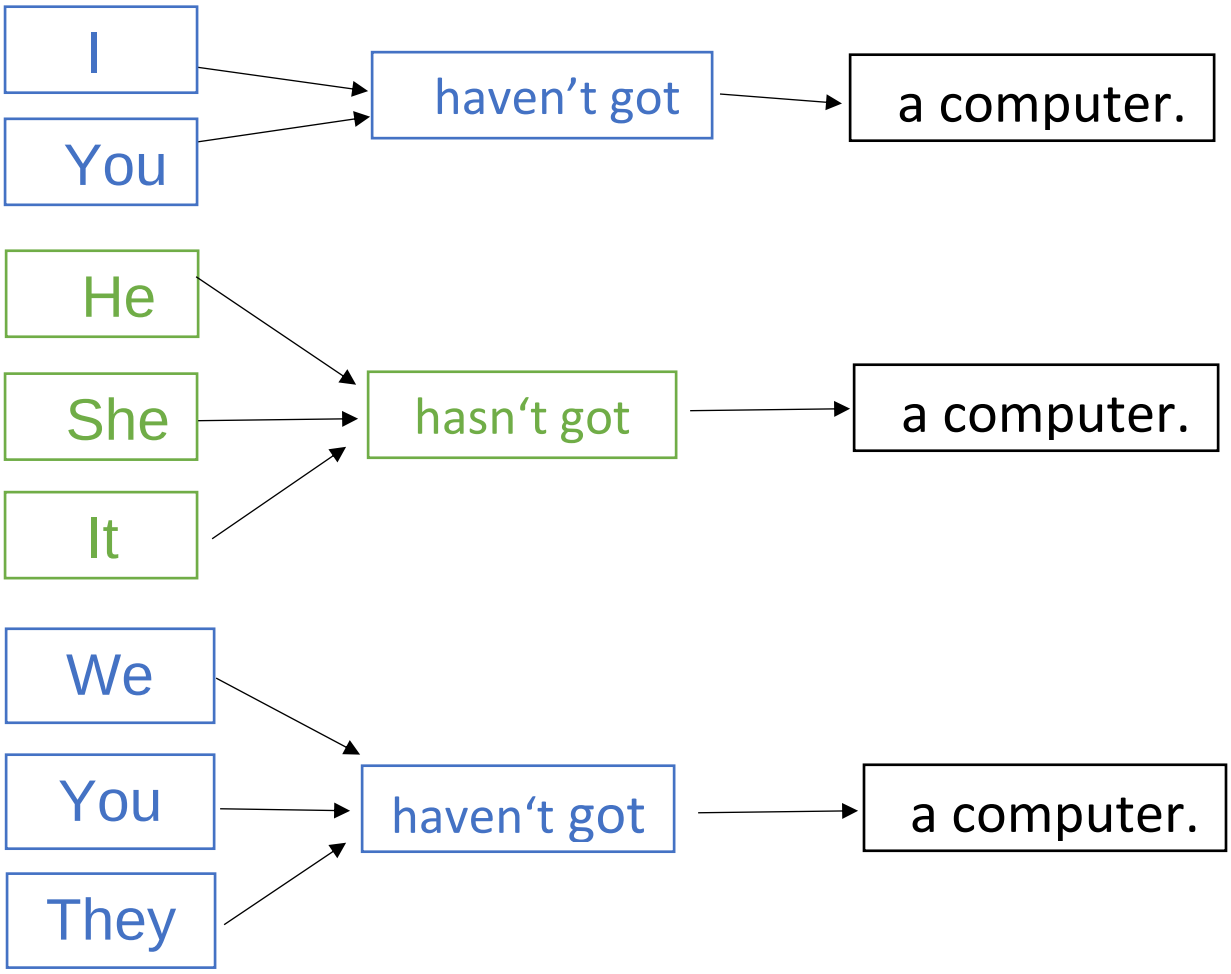
She _____ an MP3 player.

You _____ a skateboard.

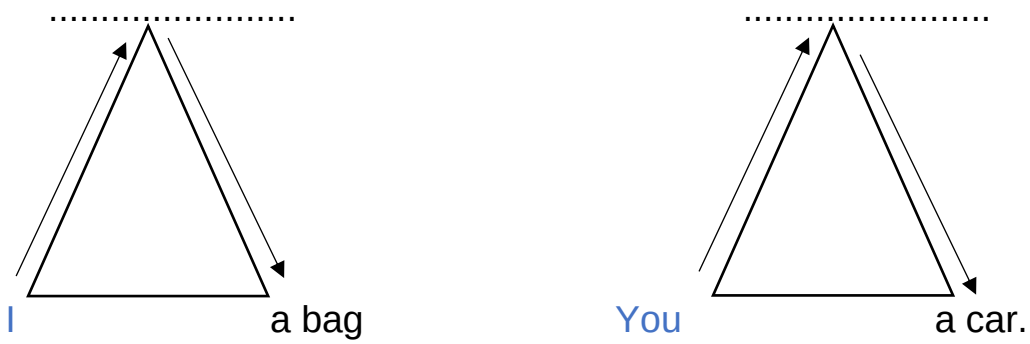
have got	has got
have got	has got
have got	
have got	

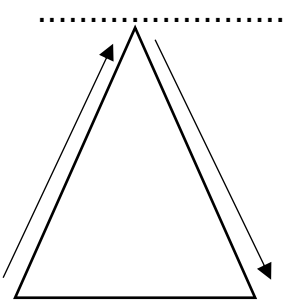
6.18 Have you got….? No, I haven't got…

Task 1 Read the sentences and pay attention to the verb „have got".

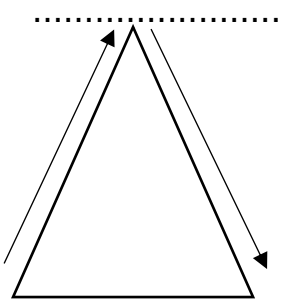


Task 2 Form sentences with haven't got or hasn't got. Use the triangles.

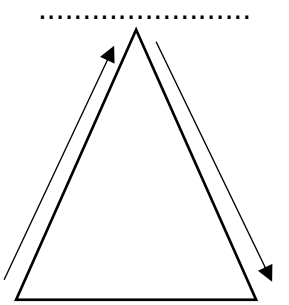




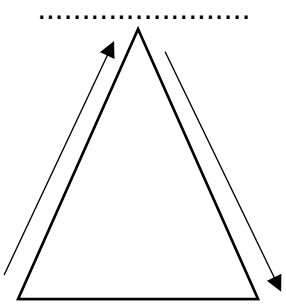
He a mobile.



She a camera.

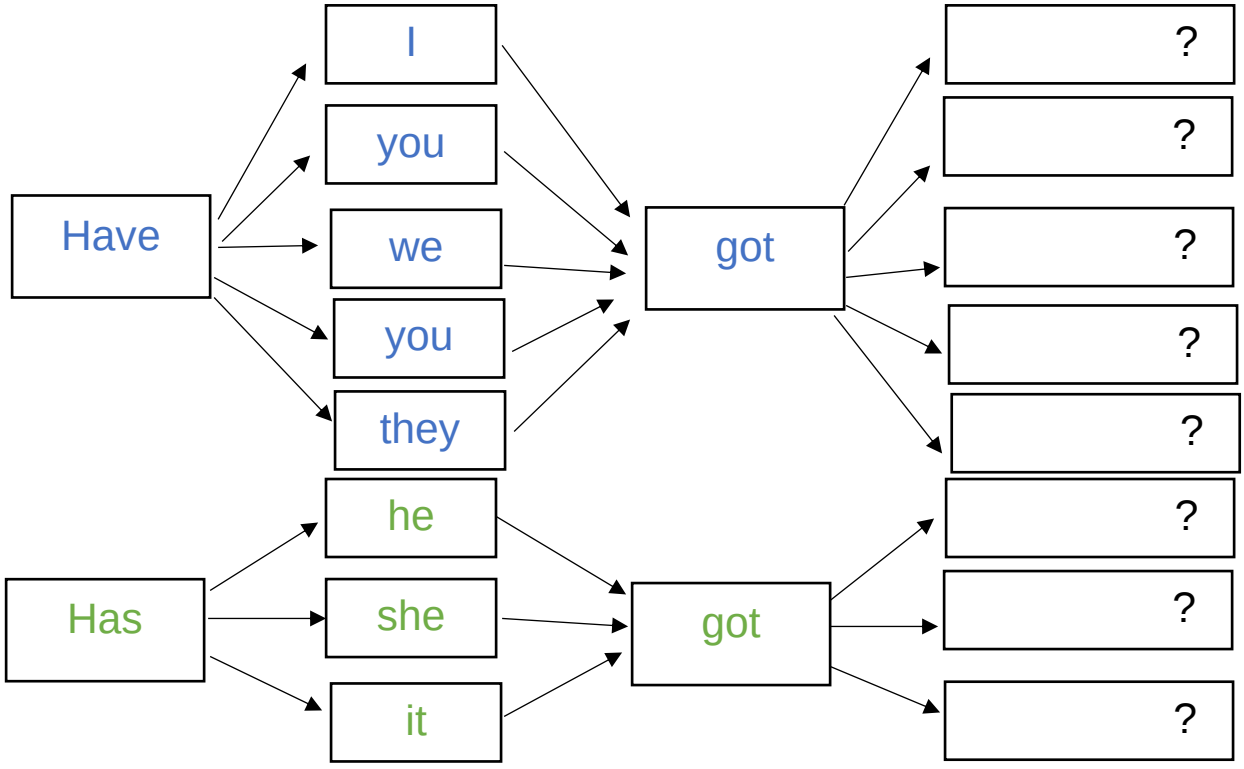


We a dog.



They an apple.

Task 3 Read the questions and fill in a noun (your own examples).



6.19 Possessive genitive

A/ Look at the sentences and notice ‘s genitive. Then fill in the sentences yourself.

Joe has got a toothbrush. This is Joe’s toothbrush.

Joe + ‘s = Joe’s

B, Cut the following cards and practice forming ‘s genitive.

Joe	Mel	Jack
Mary	Buddy	‘s
‘s	‘s	‘s
‘s	bag	watch
box	book	dog

C/ Fill in ‘s genitive.

Mel__ book

Jack__dog

Mary__ pen

Buddy__box

Tom__ watch

Julia__mobile

Peter__ umbrella

D/ Fill in the sentences with the verb ‘has got’ and ‘s genitive.

Mel _____ a watch. This is _____ watch.

Jack _____ a book. This is _____ book.

Mary _____ a bag. This is _____ bag.

Grandma _____ a dog. This is _____ dog.

Buddy _____ a box. This is _____ box.

Tom _____ a pen. This is _____ pen.

Julia _____an umbrella. This is _____ umbrella.

6.20 Prepositions of place

A/ Cut the cards and follow your teacher's instructions.

ON	IN	UNDER
NEXT TO	IN FRONT OF	
BEHIND	OPPOSITE	BETWEEN

B/ Take a pen and put it on the same place as your teacher. Write down the sentence describing the position of the pen.

Use these prepositions:

on	in	under	next to	in front of
behind	opposite	between		

Example: The pen is on the table.

The pen is _____ the book.

The pen is _____ the bag.

The pen is _____ the pencil case.

The pen is _____ the chair.

The pen is _____ the chair.

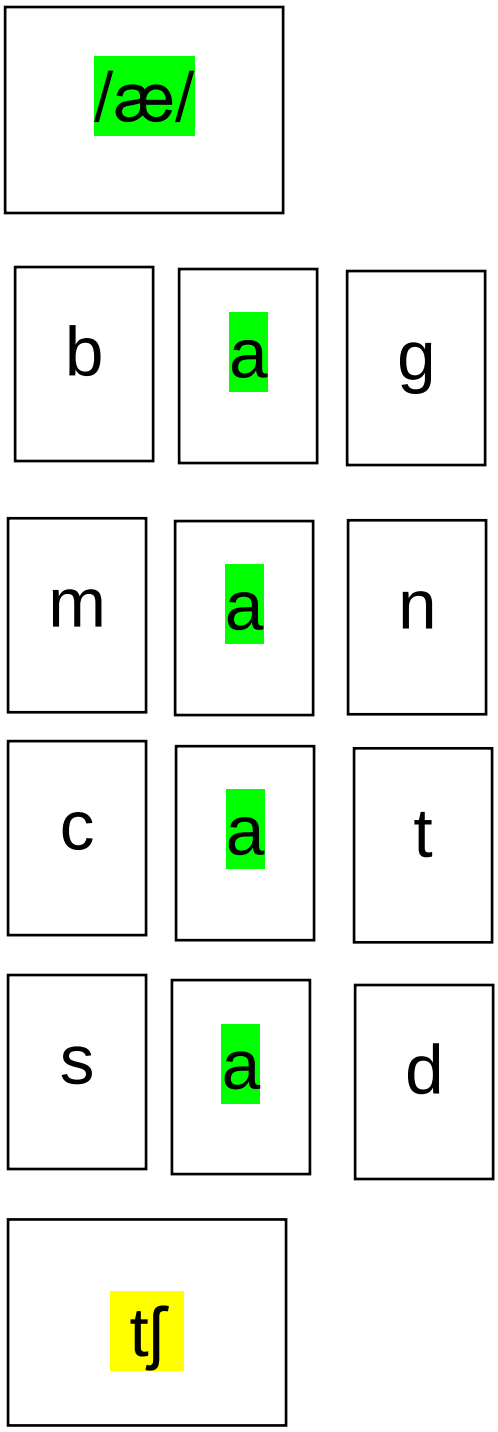
The pen is _____ two books.

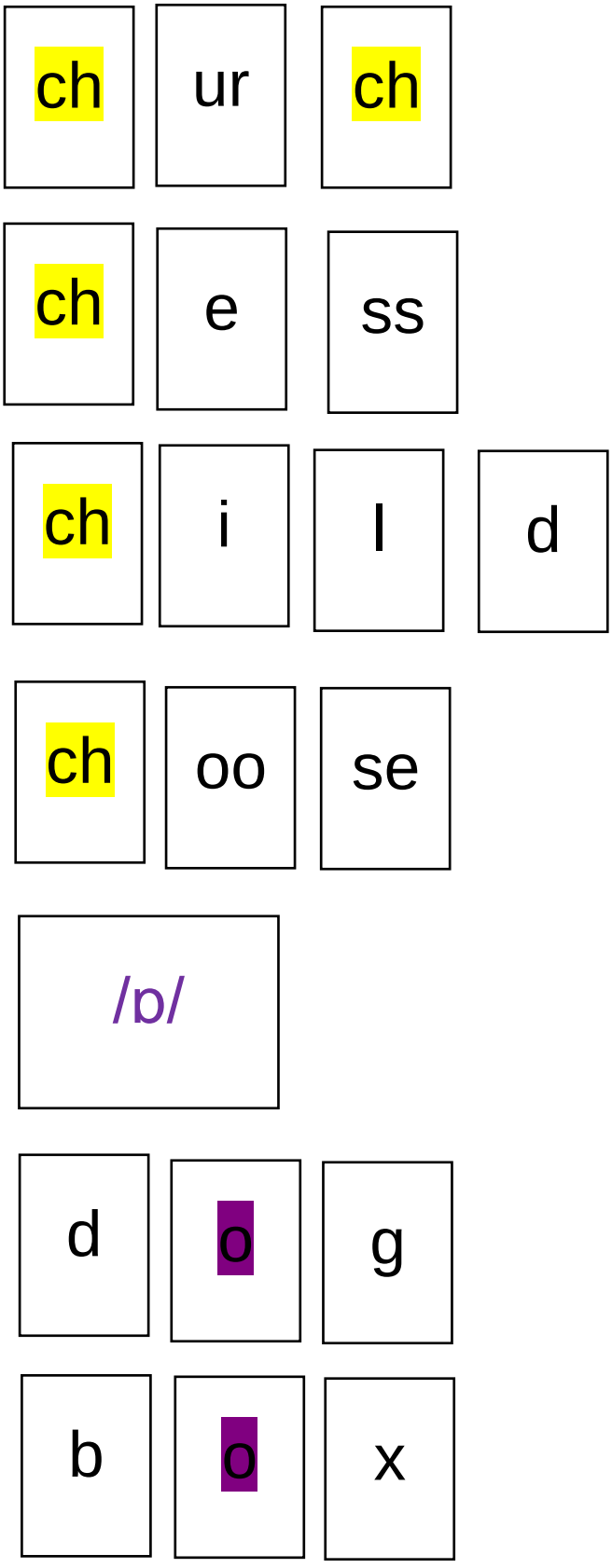
The pen is _____ the pencil.

Appendix 6

7.3 Sounds /æ/, /tʃ/, /ɒ/, /iː/

Look at the sounds and pronouce them. Then pronounce the words and notice the grapheme used for the particular sound. Then practice blending with your teacher's help.

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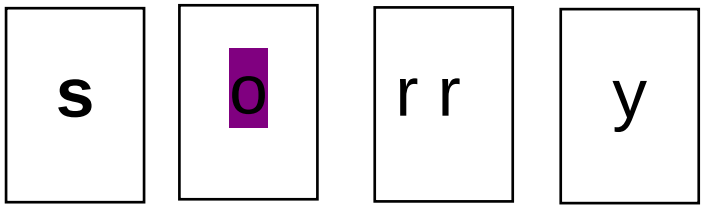
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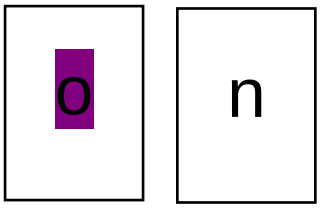
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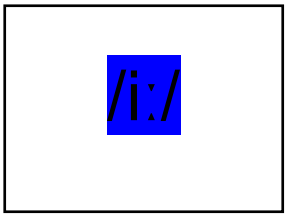
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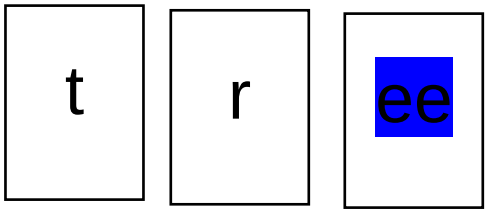
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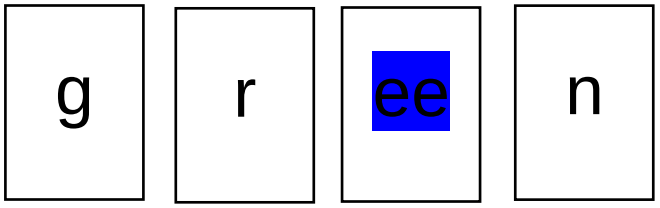
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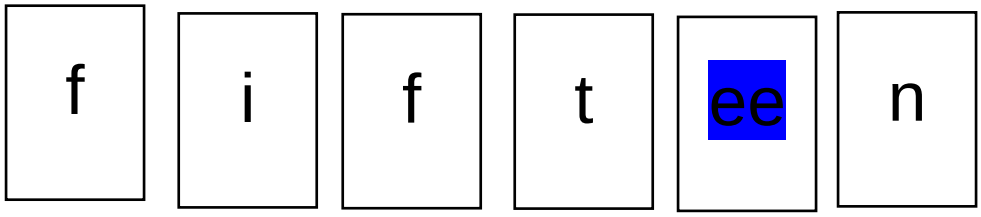
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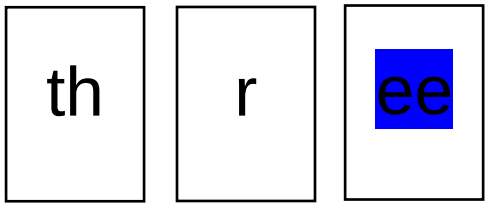
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7.4 Words with /æ/, /tʃ/, /ɒ/ or /iː/ sound

Colour the graphemes in the words according to the instructions:

- Use the green colour for the grapheme that represent /æ/ sound in the words.
- Use the yellow colour for the grapheme that represent / tʃ / sound in the words.
- Use the purple colour for the graphemes that represent /ɒ/ sound in the words.
- Use the blue colour for the graphemes that represent /iː/ sound in the words.

sand	hot	chicken
off	chop	and
on	hat	church
jam	chair	not
child	sixteen	at
tree	dog	nineteen

7.5 Which sound can I hear?

/æ/

/tʃ/

/ɒ/

/iː/

7.6 Initial sounds in words

Student 1

Spain /speɪn/

Russia /ˈrʌʃ.ə/

Brazil /brəˈzɪl/

Italy /ˈɪt.əl.i/

China /ˈtʃaɪ.nə/

Japan /dʒəˈpæn/

Student 2

Britain /ˈbrɪt.ən/

Germany /ˈdʒɜː.mə.ni/

Greece /griːs/

Australia /ɒsˈtreɪ.li.ə/

France /frɑːns/

USA /juː.esˈeɪ/

Student 1

Spain /speɪn/

Russia /ˈrʌʃ.ə/

Brazil /brəˈzɪl/

Italy /ˈɪt.əl.i/

China /ˈtʃaɪ.nə/

Japan /dʒəˈpæn/

Student 2

Britain /ˈbrɪt.ən/

Germany /ˈdʒɜː.mə.ni/

Greece /griːs/

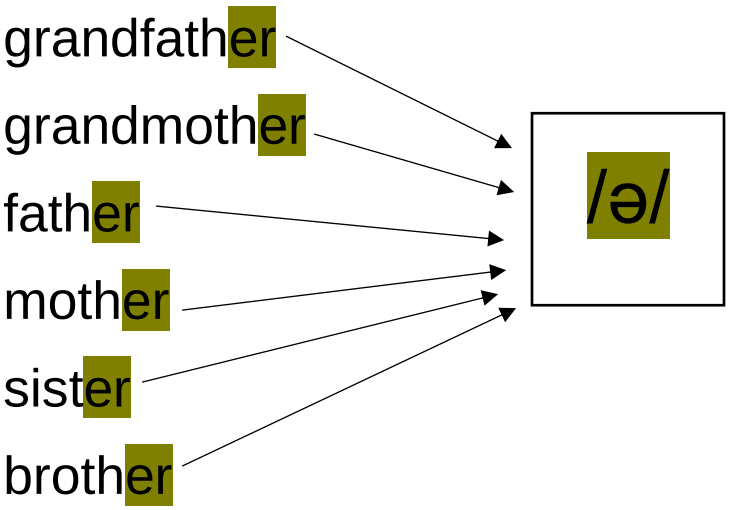
Australia /ɒsˈtreɪ.li.ə/

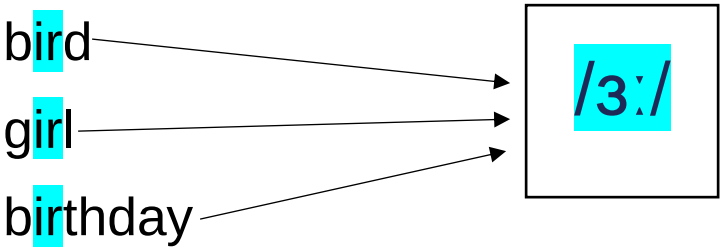
France /frɑːns/

USA /juː.esˈeɪ/

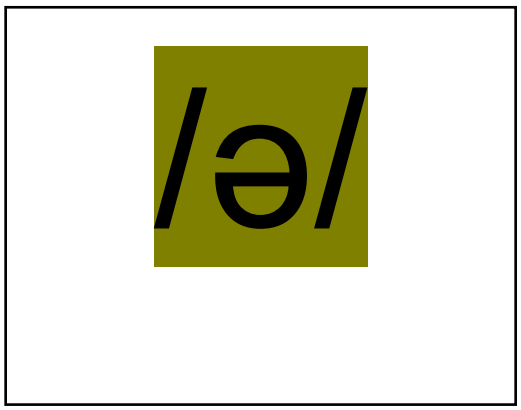
7.7 Distinguishing /ə/ and /ɜː/

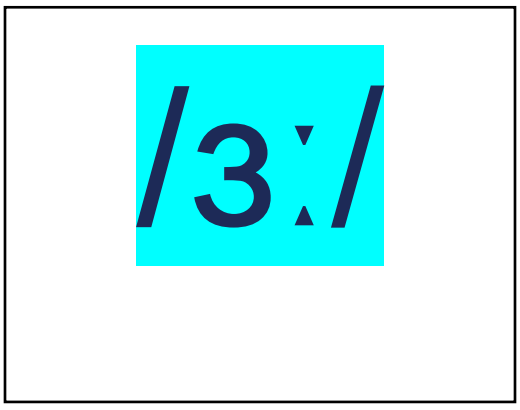
A/ Look at the following words and pronounce them. Pay attention to /ə/ and /ɜː/ sounds.





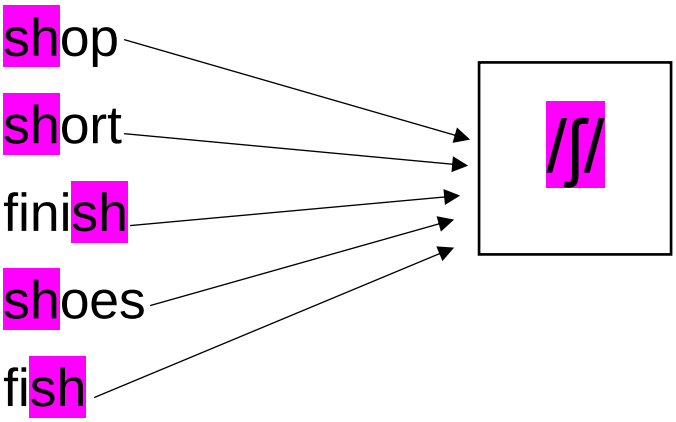
B/ Cut the cards. Listen to your teacher. When the teacher says a word that includes /ə/, show the card with this sound. When the says a word that includes /ɜː/ sound, show the card with this sound.

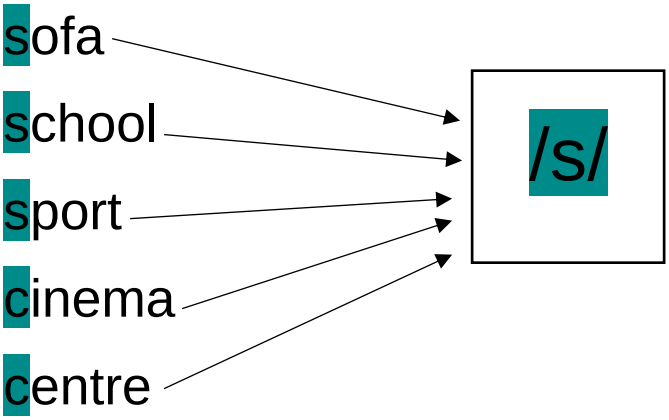




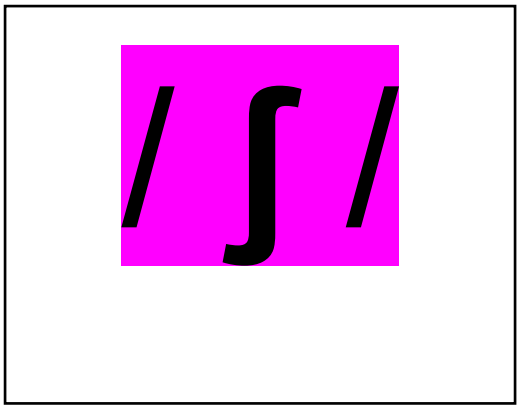
7.8 Distinguishing / s/ and / ʃ/

A/ Look at the following words and pronounce them. Pay attention to /s/ and / ʃ / sounds.





B/ Cut the cards. Listen to your teacher. When the teacher says a word that includes /s/ sound, show the card with this sound. When the teacher says a word that includes / ʃ/ sound, show the card with this sound.



7.9 Words with /ə/, /ɜː/, /ʃ/ or /s/ sound

Colour the graphemes in the words according to the instractions:

- Use the light green colour for the grapheme that represent **/ə/** sound in the words.
- Use the blue colour for the grapheme that represent **/ɜː/** sound in the words.
- Use the pink colour for the graphemes that represent **/ʃ/** sound in the words.
- Use the dark green color for the graphemes that represent **/s/** sound in the words.

brother	third	shop
office	mother	centre
short	girl	father
bird	cinema	finish
player	school	brush
sofa	birthday	computer