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Developing Reading Skills in English in Primary School
Learners with Dyslexia

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Zásady pro vypracování:

V teoretické části diplomandka vymeží základní pojmy (dyslexie, specifické poruchy učení), popíše vztahy mezi nimi a pojedná otázku rozvoje čtecích dovedností v anglickém jazyce u žáků s dyslexií. V praktické části provede výzkum zaměřený na žáky s dyslexií na 2. stupni základní školy v hodinách anglického jazyka. Formou pozorování a strukturovaného rozhovoru s učiteli nejprve zjistí, jakými technikami jsou čtecí dovednosti u těchto žáků rozvíjeny. Dále diplomandka navrhní a v praxi ověří různé, pro žáky nové techniky rozvoje této dovednosti. Subjektivní percepce efektivity jednotlivých technik u žáků zjistí prostřednictvím strukturovaného rozhovoru.
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Abstract:

How to develop reading skills in English in primary school learners with dyslexia should be the key-question for every teacher of English as a second language, not only in the primary school. Dyslexia is the most frequently diagnosed disorder within the whole group of specific learning difficulties, and as also proved by my research, there are some dyslexics present in almost every class. There is no doubt dyslexic learners should learn foreign language together with their non-dyslexic peers, and so this paper attempts to make this process less difficult and more effective.

Therefore this paper begins with introduction of all the specific learning difficulties their characteristics and relations among them. Further it summarizes all the relevant data necessary when teaching English to a dyslexic learner in general and subsequently focuses on the information related to developing reading skills in English only. All these pieces of information are then jointly utilized in the research.

In this part of the paper, a program focusing on reading skills development while using to the pupils new techniques of reading development is being designed and applied within a case-study – respecting all the data obtained and presented in the theoretical part, as well as the personal data of the pupils selected for the research. All the data are being gathered, employing all the relevant instruments and methods, providing as many viewpoints as possible. Outcomes are then being analysed, and its results used to answer the question whether the specially designed reading-skills development program contributed in a positively on the learners’ reading skills.

Key-words:

Specific learning difficulties - dyslexia - reading skills development - primary school - English as a foreign language.
Souhrn:

Otázka, jak rozvíjet čtecí dovednosti v anglickém jazyce na základní škole u žáků s dyslexií, by měla být klíčovou pro každého učitele angličtiny nejen na základní škole. Dyslexie zaujímá první místo v celé skupině specifických poruch učení, a jak také dokazují výsledky mého výzkumu, v každé třídě se jich najde většinou hned několik. Není pochyb o tom, že žáci s dyslexií by se měli učit cizí jazyk společně s ostatními spolužáky, a proto se tato práce pokouší tento proces zjednodušit a zejména pak zefektivnit.

Z toho důvodu tato práce hned v úvodu vymezuje a následně i charakterizuje všechny specifické poruchy učení a vtahy mezi nimi. Dále nabízí shrnutí veškerých relevantních informací potřebných ve výuce angličtiny u dyslektických žáků a následně se zaměřuje na data, která se týkají právě rozvoje čtecích dovedností v angličtině. Všechny tyto části jsou následně jako celek využity pro potřeby výzkumu.

Tato část mé diplomové práce, představuje mnou vytvořený a následně použitý program, který se zaměřuje na rozvoj čtecích dovedností. Současně používá pro žáky zcela nové techniky rozvoje čtení, zatímco je brán ohled na veškeré získané a v teoretické části prezentované informace, stejně jako na veškeré osobní data žáků vybraných pro výzkum. Tato data jsou shromážděna pomocí veškerých relevantních nástrojů a metod a poskytují tolik úhlů pohledu, kolik je jen možné. Výstupy jsou následně analyzovány a tyto výsledky jsou použity k odpovědi, zda tento speciálně navržený program přispěl k pozitivnímu rozvoji čtecích dovedností zkoumaných žáků.

Klíčová slova:

Specifické poruchy učení - dyslexie – rozvoj čtecích dovedností- základní škola – angličtina jako cizí jazyk.
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1. Introduction

The words of the language, as they are written or spoken, do not seem to play any role in my mechanism of thought.

(Albert Einstein)

When not only looking at, however especially reading and comprehending this quote - given by one of the most world-famous dyslexics, dozens of questions with only one integrating point are arising immediately without any restrain. They all start at the point how dyslexic people utilize their thoughts, without the words, or vice versa, how the words can have a meaning for people whose minds function mainly in pictures. How can they daily operate with a system, their minds are not compatible with; and how this gift - that in the non-dyslexic world becomes their weakness - could be turned back into their strength. Learners with dyslexia therefore can not acquire the reading skills, using the same system as the dominant, non-dyslexic society does – and so the process, when looking for the most effective approach, technique or strategy in which dyslexics’ strengths and abilities would not be a handicap, remains open.

Therefore, one of this work’s major aims is to provide all the relevant answers to these questions. It attempts to define dyslexia - including all the others specific learning difficulties and relations among the group, in the beginning, followed by a chapter devoted entirely to this reading-skills acquisition disorder. As the core of this paper lies also in the construction of a reading-skills development program and the verification of its effectiveness, the last part within the theoretical part provides the actual reading-skills development process information, focusing on its individual stages, teaching methods and general principles.

With nearly one-hundred years of this, scientific reading-skills-development of learners with dyslexia, process – considering the work of Dr. Samuel Orton and his team, as its veritable beginning – nowadays theoretical basis within the English-speaking environment is markedly extensive. Well established systems, using many various techniques and approaches, are being incorporated in all these countries such as Great Britain, USA, Canada, Australia, etc.. Within the Czech language environment, the situation is quite comparable. The problem however appears, as English becomes the global lingua franca, when talking about the reading-skills development of learners
with dyslexia in the area of EFL. Based on the United Nations’ 1989 Convention on the Rights of the Child, every child shall have:

> the right to freedom of expression; [which includes] freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice (Article 13/1),

and furthermore, that a disabled child should: “enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community” (Article 23/1). Therefore every child, with dyslexia or any other specific learning difficulty should learn a foreign language.

As already mentioned above, there are really well established systems for developing reading skills of learners with dyslexia in their mother-tongues. However, the difference between Czech and English does not allow using just one of these systems in the EFL situation. My personal and a very intensive experience of developing reading skills in the English (as a first language) environment, provided a strong motivation for focusing on this topic - willing construct and practically verify a system of English language reading skills development within the Czech environment.

1.1. Czech vs. English terminology

As the title of this subchapter already suggests, the terminology of Czech and English literary sources, as well as of various authors in both languages, differs really broadly – therefore I perceive a necessity for its unification and clarification in the very beginning of my work.

When talking about the Czech literature, terms such as *specifické poruchy učení* or *vývojové poruchy učení* or *specifické vývojové poruchy* (Zelinková, 2003; Pokorná, 2001; Smutná, 1996) are being used. Regardless of what term is being employed, it normally comprises all sub-categories such as dyslexia, dysgraphia, dysorthographia, dyscalculia, ADHD and a few less frequently used ones such as dyspraxia, dysmusia and dyspinxia.

Within the English educational-scientific environment, the hierarchy and linkage of individual terms shifts. Both terms (specific learning difficulty and dyslexia) are also being applied; however there is no sub- or super-ordination. As Philomena Ott writes:
“The European Dyslexia Association (1994) stated that ‘dyslexia is a medical term, specific learning disability (or difficulty) is an educational one’” (1997, p. 14). Despite this division, according to my perception, the term “dyslexia” is much more frequent and popular when dealing with educational literary sources. In this case, it comprises all areas of learning difficulties, such as reading, writing, spelling, grammar, math, etc.

In a conclusion, I feel that the Czech terminology is clearly organized and well structured, while situation with the English one is not so clear. There is a great variance in terminology within the scope of literature as well as a result of geographical differences. According to Pokorná, if a child moves within the USA or just a couple of miles in various directions, terms such as language difficulties, special or specific language problems, perception disorders would be used (2001, p. 60).

In my work, dealing with ELT within the Czech environment, the Czech concept is being applied. That means that specific learning difficulties are taken as a superordinate term to dyslexia and that dyslexia covers pupils’ problems in the area of reading skills only.
2. Defining specific learning difficulties

Specific learning difficulties - is a general term used to comprise educational problems in the area of reading, writing and mathematics. However, it always has not been so. Early definitions of specific learning difficulties include only dyslexia, later on problems with writing and reading were being added, and finally – in the second half of the twentieth century – also problems with mathematics were accepted into this group. (Pokorná, 2001, p. 68) This situation may be also supported by its definition that is part of the public law, made by the US Office of Education in 1977:

Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation of emotional disturbances or of environmental, cultural, or economic disadvantage.

Symptoms of all these difficulties are highly individual and enormously wide. They may occur together with other handicaps – such as sensory, mental or behavioural ones, or external influences – such as cultural differences. (Zelinková, 2003, p. 10) Specific learning difficulties symptoms do not show themselves just in one particular area; however they share a large amount of common features. These may be: speech disorders, concentration problems, problems with short term memory, motor skills, laterality and others (Zelinková, 2003, p. 10, Ott, 1997, p. 5, 28-35). Ott refers to them as a cluster of symptoms and states that:

It would be unusual for an individual to have all these difficulties. [...] The prognosis depends on individual strengths and weaknesses, on the individual learning strategies, on the degree of the [specific learning difficulty], on when the diagnosis was made and on appropriate tuition (1997, p. 5).

As I already stated, specific learning difficulties concept comprises various areas of teaching-learning process, and so the Czech literature uses special terminology to subdivide them into several categories, I analyze more in detail in following subchapters.
2.1. Dyslexia

Dyslexia is the most widely spread disability among all of the SpLDs. Researches generally state that at least about 70-80 per cent of people with SpLD have primary difficulties with reading and language processing. Some of them talk even about 80 per cent of dyslectics among the whole SpLD group (IDA fact sheets). When talking about absolute numbers of dyslexic people in the population, researches also vary. Regarding to the absence of clear criteria for certifying dyslexic learners, setting any reasonable number is just guesswork. According to the British Dyslexia Association, the estimate of children having some degree of dyslexia is 10 per cent. (Ott, 1997, p. 12)

“Dyslexia ranges from mild to moderate to severe to profound” (Bright Solutions for Dyslexia, 1998, a). In relation to that, it is extremely difficult task to specify signs and symptoms of dyslexia. It is a very wide cluster of elements and there are no two people having the same combination as well as range of these difficulties. As C. M. Stowe states:

There is no one “dyslexic” profile, no one standard set of characteristics. Instead, some students have speech articulation problems and halting verbal expression, while others speak fluently. […] Some seem to be in a world of their own, while others listen attentively and are very aware of social cues. Some cannot decode the simplest word, while others can read almost anything but have trouble comprehending what they read. Some reverse letters in reading and writing, whereas others do not (2000, p. 3).

2.2. Dysorthographia

Dysorthographia is a term generally not used within English literary sources very frequently. It is mostly included under the term dyslexia when taken as a unit for problems with reading only, as well as when understood as the whole concept of specific learning difficulties. However in the Czech literature dysorthographia is described as a specific spelling disorder (Zelinková, 2003, p. 100), that externalize itself mainly in the area of so called specific dysorthographic errors or grammar errors (Zelinková, 2003, p. 9, 101, 106).

[These] errors are affected especially by insufficiently developed auditory perception, rhyme perception and reproduction, understanding the content of written text, eventually by insufficient development of graphomotor skills (Zelinková, 2003, p. 100).
Some of the errors made by dysortographic people are misrepresentation of sounds (both consonants and vowels), usage of wrong word-boundaries, wrong syllabification, omission versus addition or shifting of letters, or inconsistent spelling.

2.3. Dysgraphia

Dysgraphia (or agraphia) is a disorder in the ability to acquire writing skills. It affects graphical features of written text and its legibility (Zelinková, 2003, p. 9). It is caused mainly by deficiencies in the area of fine and gross motor skills, movement coordination, attention skills, three-dimensional orientation, and others. The most often combination of deficiencies are – problems with fine motor skills, reduced visual imagination (inability to visualize individual letter-shapes) and disability to remember motor patterns of letter-shapes. Re-education of this disorder focuses on fine and gross motor skills-development and writing activities, such as smooth movement of pupil’s wrist and correct holding of the pen or pencil. (Zelinková, 2003, p. 92)

2.4. Dyscalculia

Dyscalculia is a disorder in the ability to acquire mathematical skills. A pupil with this disorder mainly suffers from great difficulties in the area of understanding numbers and dealing with mathematical operations. (Zelinková, 2003, p. 10) Dyscalculia is a disorder that’s development depends on many factors – organic, psychic, social and didactic ones. That is also why, there are various types of dyscalculia and so individual re-educational approaches need to be applied. Re-education of dyscalculia starts with development of psychic functions, followed by pre-numerical conceptions, formation and automatization of mathematical concepts. (Zelinková, 2003, p. 111-112) As also Zelinková says: “As well as with dyslexia re-education process, we are looking for the level where the child actually is, and from there we proceed towards more complex and difficult tasks” (2003, p. 112 – my translation).
2.5. Attention Deficit Hyperactivity Disorder (ADHD)

ADHD is, as its unabbreviated name already says, an attention disorder connected with hyperactivity. Within this cluster, concepts such as ADD (Attention Deficit Disorder), ODD (Oppositional Defiant Disorder), ADHD without aggression and ADHS with aggression are being incorporated. “Principal signs of this disorder are attention disorders, hyperactivity and impulsivity” (Zelinková, 2003, p. 13 – my translation). Re-educational process is based on the pupils’ diagnosis in connection with the whole environment that surrounds him – family, friends, and teachers. Primary task is to change these problematic surroundings, to minimise negative stimuli that may function as starting mechanisms. (Zelinková, 2003, p. 200)
3. Dyslexia

Dyslexia, as I already stated in the previous chapter, is the most widespread of all SpLDs, and that is why it is studied with the highest intensity, among all the SpLD sub-categories. Its study had a long history; dyslexic people are dealing with a variety of strong and weak points, as well as various social and emotional problems. There are also several sub-divisions and close relations to psychology medicine and other scientific fields. There is a discussion about various learning styles associated to this disorder and nearly countless numbers of viewpoints on it.

Regarding all that, I try to provide its complex picture within this chapter. According to my perception of this area, all the following subchapters are being ordered from those most general and broadly-known to those more specific, including really detailed information on this topic.

3.1. Defining dyslexia - morphology of the term

The word dyslexia comes from the Greek. It consists of two different words δυσ- dys- meaning weakened, deficient or damaged and λέξις lexis meaning word, reading or language. People with dyslexia are called dyslexic or dyslectic. (Dyslexia, Slovník cizích slov, 2000, p. 159, Dyslexia and the Brain)

As outlined in the following chapter (3.2.), there are about 120 years of some development in the field of dyslexia, as well as there are several scientific viewpoints within these questions. Based on this condition, it is no surprise; there is an enormous amount of dyslexia definitions. I choose the one that is, according to my perception, really accurate and exactly representing my perception of this problem that I try to transfer into this paper. It was created by the International Dyslexia Association, adopted by the board of directors on November 12th, 2002 and it states 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 the growth of vocabulary and background knowledge (IDA fact sheets).
3.2. Dyslexia in a historical development perspective

Term dyslexia was coined in 1887 by Professor Rudolf Berlin, an ophthalmologist working in Stuttgart. He used it when referring to a young learner who had severe difficulties in learning to read and write in spite of having typical intellectual and physical abilities in all other respects (Dyslexia and the Brain, Dyslexia, Ott, 1997, p. 5).

Within the end of the nineteenth century, also other scientists were studying this problem. One of them was a German physician Adolf Kussmaul, who coined the phrase word-blind to describe those patients who would today be called dyslexic. Following terminological development happened especially thanks to scientific contribution of Dr James Hinshelwood and William Pringle Morgan. Dr. Hinshelwood was “one of the first doctors to do clinical studies on children who could not read. He believed that what he called ‘congenial word blindness’ was based on either brain defects or injury” (Stowe, 2000, p. 12). He also noted a tendency, nowadays taken as mythical, towards more dyslexic males than females, pointed out heredity elements of literacy problems and the need of different teaching methods. (Ott, 1997, p. 6)

Despite all this scientific research on the field of dyslexia research, world had to wait for probably major contributor in this area, till the end of the second decade of the twentieth century. It was Dr. Samuel Orton, the American neurologist, who “believed that the reading problems he saw in intelligent children were based on neurological factors” (Stowe, 2000, p. 12). He examined many dyslexic children and discovered similarities in their errors – one of which was “the instability in recognition and recall of the orientation of letters and the order of letters in words” (Ott, 1997, p. 7), which he called stephosymbolia. In the 1930s, influenced by the kinesthetic work of Helen Keller and Grace Fernald, Orton asked his research assistant Anna Gillingham, to create a multisensory learning program for people with dyslexia, which later become known as the Orton-Gillingham method. It is based on multi-sensory teaching techniques that are linked to weaknesses of individual dyslexic learners and due its complexity and positive effects, this approach is discussed in detail in the chapter 4.3.4.. (Stowe, 2000, p. 12, Ott, 1997, p. 8) “Orton died in 1948. To ensure that his work continued, a group of his associates formed the Orton Society in 1949. It later changed its name to the Orton Dyslexia Society” (Ott, 1997, p. 7).
In the 1970s, a new hypothesis, based partly on Orton's theories, emerged that dyslexia originates from a deficit in phonological processing, also called phonemic or phonological awareness, or difficulty in recognizing that spoken words are formed by discrete phonemes. (Dyslexia) While, various literary sources use both terms – phonemic and phonological awareness – I believe the structure of phonemic being a subset of phonological, or in other words phonological being a broader notion than *phonemic* should be mentioned here. In order to be consistent in terminology, I further use the term phonological as a more general one. Problems with phonological awareness are a keystone of reading, writing and spelling difficulties. In detail, children with lack of this awareness have problems with remembering the sounds of letters, blending sounds, focusing on basic language tasks, such as rhyming words. (Stowe, 2000, p. 6)

Nowadays, various new technologies are being developed and used to search for the basic source of dyslexia. “It is now generally believed that physiological differences in brain organization and structure are at the root of the dilemma” (Stowe, 2000, p. 6). However, is still is not the final stage of this research. As Stowe also writes: “There may be other factors that we have not yet discovered” (2000, p. 7).

3.3. Strengths and weaknesses of dyslexic learners

Dyslexic person have (as do other people) strengths and weaknesses in how they process and organize information within the brain. Understanding these strengths and weaknesses can help tutors, employers, employees and students find more effective approaches to organizing learning and work (Krupska, 1995, p. 39).

3.3.1. Weaknesses

Among the most evident weaknesses of dyslexic learners, there are great differences in day-to-day performances. Dyslexic learners have good and bad days and they also do not make the same mistakes when reading all the time. When talking generally, the most frequent errors of dyslexic learners when reading in English are:

- reading a word on one page and not recognizing it on the very next one
- knowing the phonics, but inability to sound out unknown word
- substituting similar-looking words, such as sunrise for surprise or house for horse
omitting or changing suffixes, saying need for needed or late for lately
- guessing an substituting difficult words with their synonyms
- misreading, total omitting or even adding small function words, such as an, a, the, are, of
- becoming visibly tired after reading for only a short time

(Bright Solutions for Dyslexia, 1998, a)

One of the most problematic symptoms is the problem with short term memory as well. (Ott, 1997, p. 4-5) Ineffective cooperation between long and short term memory centers, causes problems in either storing or recalling memories, and thereby affects the reading process. Mostly, this situation is taken as a unit; however Sally Raymond isolates individual memory difficulties into problems with audio, visual, semantic and working memories. According to her, each of these memory problems should be diagnosed and treated separately. She describes weaknesses in the audio memory, as problems with decoding unfamiliar phonetic clusters, while familiar words are being read as one visual unit. Visual memory problem is than the opposite. Weaknesses in the semantic memory are referred to as difficulties accessing names accurately from the memory, which markedly lowers comprehension of the text. At last, the working memory weakness causes problems in sequencing individual tasks, in relation to lower concentration caused by interference and distraction from other stimuli. (2002, p. 68–72)

Within the group of frequent errors also often belongs directionality confusion of certain letters, especially b-d-p-q or n-u and others (Bright Solutions for Dyslexia, 1998, a), which should not be there. However, Stowe comments on this item as a myth and adds that “people with dyslexia are as prone to reversals as anyone else, but not more so. […] Occurrence of reversals is neither a diagnostic sign nor a causal factor of dyslexia” (2000, p. 5).

When talking about common myths about dyslexia, I would like to mention gender distinction as well. Most of the authors, such as Ott mark the prevalence of males as one of the major characteristics of dyslexia. On the contrary, as Stowe proceeds in her chapter: “it is a stereotype, that gender is a factor, and that there are more males with dyslexia than females” (2000, p. 5). This could be supported by statement of Sally E. Shaywitz, M.D. published in the New England Journal of
Medicine. As she writes: “Previously, it was believed that dyslexia affected boys primarily; however, more recent data indicate similar numbers of affected boys and girls”.

3.3.2. Strengths

However, not to talk just about negative aspects of being dyslexic, there is also a relatively long list of their strengths. People with dyslexia have a different brain anatomy compared to others - which is discussed mainly in chapters 3.6. and 3.7. - so they may benefit from that in certain areas of their lives. According to R. D. Davis and his book The Gift of Dyslexia, dyslexic people generally share eight basic abilities:

- they can utilize the brain’s ability to alter and create perceptions
- they are highly aware of the environment
- they are more curious than average
- they think mainly in pictures instead of words
- they are highly intuitive and perceptive
- they think and perceive multi-dimensionally (using all the senses)
- they can experience thought as reality
- they have vivid imaginations

(Davis, 2006, p. 5)

All these strengths than have positive impact on these peoples’ future. Due to these capabilities they may be proficient in areas such as architecture, psychology, teaching, athletics, music, computers, photography and so on (Bright Solutions for Dyslexia, 1998, a).

3.4. Social and emotional problems related to dyslexia

Dyslexia is not just a “problem” associated with school. Each of us uses language, and especially reading, in everyday life. And the same situation applies to the process of developing reading skills in dyslexic learners. Even though, it may seem just as something they work on at school, or within allocated time with their parents at home only, dyslexia affects their behaviour – at school and at home - as well. In the literature, behavioural disorders are referred to as secondary symptoms of dyslexia.
Learners with dyslexia differ from their peers from the very beginning of their educational process. Their emotional problems begin, as soon as the first reading instruction does not match their reading style, and over the following years frustration mounts, as their classmates reading skills develop more rapidly than their own. That is also why “dyslexia re-education process does not focus just on its surpassing, however largely also on overcoming emotional and social problems” (Pokorná, 2001, p. 148 - my translation).

Behavioural disorders may include anxiety, lack of concentration, infantility, anger, aggression, depression and many others. Anxiety is the most frequent of these emotional symptoms that affect learner’s self-image, as well as may cause various family problems. Such child may than refuse to cooperate and write homework, loose or hide books, falsify signatures. In the end, all these problems combined together may create so called vicious circle, which is very complicated to get off. (Pokorná, 2001, p. 147-153, IDA fact sheets)

3.5. Learning styles

Each of us has own learning style, and how we, as a pupil or a teacher, use it in the learning-teaching process, depends on its awareness. According to Zelinková, learning style is “a method, how individuals master new knowledge. It is individual and not following it may be one of the causes of failure, though the child’s home-preparation is sufficient” (2003, p. 185). There are several models and theories of learning styles – while Howard Gardner's Multiple Intelligence Model and the VARK system or VAKOG concept are probably the most popular ones. As the practical part of my thesis stems primarily from the VARK system, I do not analyse the Gardner’s model – even though knowledge of pupil’s intelligence type can inspire teacher when planning lessons or preparing work-materials – and focus primarily just on the senses or representational systems learners employ within the learning-teaching process. Four letters in the VARK acronym stand for:

- **V** = visual – meaning we look and see – taking information through eyes, like to see things written down, in the form of diagrams, pictures etc.
- **A** = aural or auditory – meaning we hear and listen – taking information through ears, like to hear things being said, listen to cassettes.
R = read/write
K = kinesthetic – meaning we feel externally (tactile), internally (visceral or emotional) and movement (psycho-motor) – taking information through hands, bodies or emotions, like to touch things, move hands or feet or walk around.

(VARK, Revell, 2000, p. 31)

„The systems [learners] use to experience the world, are called [their] primary representational systems” (Revell, 2000, p. 31). In the area of style preferences, there are two possible outcomes. First possibility is tendency to use one of the senses above the rest, which is in the book by Jane Revell and Susan Norman called preferred primary representational system, or no notable tendency at all. In this case, all the senses are used with nearly equal intensity, and so there is a fifth type of a study strategy, called multimodal (MM).

As Hanušová states in her article: “Finding preferred learning styles helps not just to the learner, however also to the teacher when working with a certain class. This is twice as important in learners with SpLDs” (Hanušová). As dyslexia itself has purely individual characteristics, dyslexic learning styles are unique as well. Some dyslexia learners may prefer learning in groups while others tend to individual work, some may learn better by means of using pictures, drawing activities or graphical computer games, for others it could be not so effective and they may prefer other methods. As Krupska writes:

Teaching methods in our society are largely focused on activities which rely on language and the consequent need to process a great deal of verbal information in one form or another. Such an approach favours students who have no difficulties with processing language efficiently or using a sequential approach to learning (1995, p. 39).

According to all this distinctness in dyslexic learning styles, it is a very complicated task to address individual learners by means of their preferred approach. It could be possibly done – as tested in my research – within individual re-educational lessons, however it is a very complicated and demanding task, involving various differentiation and individualization techniques in a regular language lesson. In this case, more than anywhere else, multisensory approach and application of appropriate metacognitive strategies are crucial elements. Dyslexic learners need to thing about and
organise everything they learn – everything must be meaningful, often with highly personal connections. (Krupska, 1995, p. 39-40, Zelinková, 2003, p. 185)

3.6. Hemispheric dominance – laterality

Dyslexia is closely associated with brain, its functions and specializations of individual brain hemispheres. In the past, there was a theory about exclusive connection between right-handed population and left hemisphere dominance, and vice versa, however it was soon replaced by Paul Broca’s and John A. Wada’s research results. Especially Wada’s, and later also Doreen Kimur’s, research proved left hemispheric dominance in the area of speech within one-hundred per cent of right handed, and sixty to seventy per cent of left handed non-dyslexic population. Left brain hemisphere, also called speech hemisphere, is then essential for reading skills development, as well as all others language based actions.

On the other hand, based on anatomical as well as neurological causes, which are closely described in following paragraphs, dyslexic people clearly rely more on right hemisphere processing. According to research of learners with SpLDs, accomplished by Smutná and Novák, there are only “forty-seven per cent of cases with corresponding dominance of right hand and right eye, thus with left brain hemisphere dominance” (145 – my translation). Based on the same research, the second place is taken by so called ambidexterity – well known variant of cross-dominance or neutral laterality, represented by more than twenty-eight per cent of dyslexics – which, based on the research of Zdeněk Žlab and František Synek, is a preferable type in the period of beginning reading, when cooperation of both hemispheres is necessary.

There are several lists characterizing individual hemispheres and its functions, however listing just those major ones should be sufficient when illustrating its difference in the viewpoint of dyslexia.
Table 1: Hemisphere characteristics

<table>
<thead>
<tr>
<th>Left hemisphere</th>
<th>Right hemisphere</th>
</tr>
</thead>
<tbody>
<tr>
<td>verbal – uses language</td>
<td>non-verbal – uses pictures, shapes and colour</td>
</tr>
<tr>
<td>rational</td>
<td>intuitive</td>
</tr>
<tr>
<td>analytical-synthetic (sequential analysis)</td>
<td>holistic-global – complex inter-relationships</td>
</tr>
<tr>
<td>linear progression</td>
<td>global approach</td>
</tr>
</tbody>
</table>


3.7. Etiology of dyslexia

To list and describe elements causing dyslexia is no easy task. There are several various approaches or divisions when dealing with this problem, as well as – and more importantly – the research still continues and so what was believed to be true couple decades or even years ago, does not have to be true anymore.

According to some of the most recent findings, there could be defined two – respectively three - levels of causes. According to Zelinková, who refers to Uta Firth’s research, there are biological-medical, cognitive and behavioural levels. On the other hand, Thomson and Watkins in their book mention just two main levels – neurological and cognitive. As these two are mentioned in both literary sources, they are analysed really closely in following paragraphs. (Thomson1998, p. 11, Zelinková, 2003, p. 21)

**Neurological or biological-medical level** comprises genetics, as well as brain structure and its functions. Nowadays, there are definite proofs of connection between dyslexia and several key-genes. As early as in 1983, abnormalities on the fifteenth pair of chromosome were described, and as the research has continued, the latest results talk about chromosomes number two, thee, six, seven, fifteen, eighteen and maybe others. However, it is not just genes, but also their combination with other factors, that contribute to the probability of dyslexia appearance. (Zelinková, 2003, p. 21-22)

Scientists also discovered great differences in brain anatomy, as well as abnormal functions of individual brain-parts and cooperation between them in dyslexic and non-dyslexic people. One of the most often mentioned findings is that about great anatomy changes on planum temporale. While about sixty-five per cent of all individuals have the left planum temporale wider, and only about ten per cent of cases develop in the opposite way, people diagnosed with dyslexia have both sides equally large. As Zelinková explains planum temporale’s importance, “this area of brain takes
part in higher-level-processes including sensory and motor analysis, working memory, attention and language” (2003, p. 23 – my translation). In addition, there could also be differences in the size of whole brain hemispheres as well. As Roxanne F. Hudson, Leslie High and Stephanie Al Otaiba state in their article, “most brains of right-handed, non-dyslexic people are asymmetrical with the left hemisphere being larger than the same area on the right”. However, as they continue, referring to research of Sabine Heim and Andreas Keil, there is prove of symmetry or even asymmetry in the opposite way (right hemisphere being larger than the left one) within the right-handed population with dyslexia. In conclusion, even though there are several contradictory findings on this topic, and its study continues, knowledge about brain structure of dyslexic people provides with a significant help. (Zelinková, 2003, p. 22-23, Hudson, 2007)

Besides planum temporale’s and brain-hemispheres size, there are also several other abnormalities analysed within the dyslexic brain. Some of them are:

- more small neurons in thalamus, which is the brain-centre where information from sensory organs (eye, ear) are transferred towards higher cerebral-cortex processes
- abnormal cellular migration, formation of connections among them and meronecrosis that originate in the embryo-development period
- less efficient inter-hemispheric communication caused by smaller, and in some cases even shorter, brain structure called corpus callosum that connects both brain hemispheres

(Zelinková, 2003, p. 23)

On the boundary of neurological and cognitive perspective, there is a cerebellar theory created by Roderic Nicolson and Angela Fawcett. As Zelinková defines: “[It] explains changes in cognitive and behavioral mechanisms on the basis of deficit in the cerebellum structure and function [and] it distinguishes dyslexia symptoms from its causes” (2003, p. 24 – my translation). Cerebellum’s main function is the integration of sensory perception with limbs targeted-motion control. Its deficit may lead to balance, movement-coordination and movement-automatization disorders; limbs stiffness and others. Based on researches implemented in the end of the twentieth century, cerebellum also significantly participates on frontal cortex activities including Broca’s area that is involved in speech production, language processing and especially in language comprehension. (Zelinková, 2003, p. 24-25)
When talking about the **cognitive level**, various authors documented variety of deficits – such as phonological and visual deficits, those in the area of language and automatization processes, deficits in memory and some others. (Zelinková, 2003, p. 26) All these deficiencies are closely linked. Visual deficit is mainly associated with eye-tracking and eye sequencing difficulties. According to a study of George Pavlidis, a Greek scientist who studied eye-tracking of developmental dyslexics in comparison with non-dyslexic readers, eye-tracking pattern of dyslexics, reading short and long words or pseudo-words, was markedly different. (Jošt, 1998, p. 30) On the other hand, as Thomson mentions in her work:

Reviews of eye movement research indicate that eye movement and eye sequencing difficulties are secondary to the primary problem in decoding the visual symbols into sounds, i. e. the reading process itself. The eye is but a receptor. However, there is a good deal of evidence for difficulties in serial and sequencing skills, particularly where sound encoding is involved. These difficulties are usually associated with some kind of short-term memory problem (1998, p. 11).

Based on this statement, there is a clear and tight connection between the visual deficit and deficiencies in phonology and memory. These three segments are the key base for this level within dyslexia etiology. (Thomson, 1998, p. 11-12)

There are several **types of memory** – short-term, long-term, working memory – and according to various researches; the long-term memory is the only one functioning, in most cases, identically in dyslexic and non-dyslexic learners. On the other side, working memory, as a sub-type of short-term memory, is important when dealing with actual tasks or situations. It is necessary in situations when various information coming from different areas need to be used at the same time. Scientific researches proved grammar to be the most problematic area of language related to deficits in working memory. However, short-term memory as a whole is associated with wider cluster of dyslexia difficulties. As Thomson writes: “dyslexics have difficulties in remembering letter patterns and basic sound correspondences” (1998, p. 12). They have problems with remembering series, or basic letter patterns necessary for reading. As Thomson continues “A letter combination taught one day will be forgotten the next day” (1998, p. 12). Short-memory disorders may also cause problems in remembering new vocabulary, even if heard just a couple of seconds before. Based on these difficulties,
interconnectedness between memory and phonological deficiencies is evident. (Thomson, 1998, p. 11-12, Zelinková, 2003, p. 30)

All of these deficits may of course combine in various ways. That is also where most of the researchers perceive to be the cause of dyslexia. (Zelinková, 2003, p. 31)

3.8. Types and sub-types of dyslexia

According to the literature I have studied, there are three various approaches how to distinguish individual sub-types of dyslexia. Their order, in following subchapters, is based on their frequency in that literature.

3.8.1. Developmental X acquired dyslexia

**Developmental dyslexia** is generally the type; this whole paper is about. It can be shortly characterized by an “unexpected difficulty in reading in children and adults who otherwise possess the intelligence, motivation, and schooling considered necessary for accurate and fluent reading” (Shaywitz, 1998), and its causes are already described closely in the chapter 3.7..

On the other side there is **acquired dyslexia**. This type is also known as deep dyslexia and it is caused by an extensive damage of left hemisphere, which must be sufficient to cause aphasia – an inability in production and understanding the language - and often also a left hemiparesis. (Reading Success Lab, Aphasia)

As there are several approaches in dividing individual sub-types of dyslexia that are really close, I should also mention the one presented on the web-site of the Reading Success Lab. According to this institution, there are three basic types of dyslexia:

- **Trauma dyslexia** – its occurrence is connected with some type of brain injury or trauma
- **Primary dyslexia** – its presence is not caused by damage, however more likely by a, often hereditary, dysfunction of the left hemisphere of the brain (cerebral cortex). “Individuals with this type are rarely able to read above a fourth grade level and may struggle with reading, spelling, and writing as adults” (Reading Success Lab).
Developmental dyslexia – its cause is a hormonal development during the early stages of fetal development and it fades with the time.

3.8.2. Linguistic, perceptual and mixed dyslexia

This distinction is based on theory of professor Dirk J. Bakker, a Dutch researcher, whose analysis arises from functional specialization of brain-hemispheres. As it is closely described in the following chapter, each hemisphere specializes on different elements – the left hemisphere on language, while the right one on shape and direction – which means that without their well-balanced cooperation, reading can not become accurate nor fluent. Re-education of these types is based on Hemisphere-Specific Stimulation (HSS).

Left-hemispheric dyslexia, or L-type (linguistic), is the case, when learner reads really fast, however he also produce a lot of substantive errors and guesses. That is why children with this sub-type of dyslexia are also called guessers. It is caused by insufficiently developed mechanisms of spatial perception (right hemisphere) and so the learner primarily uses just the left hemisphere when reading. Re-education focuses on visual perception, left-right and spatial orientation – it means on elements supported by the right brain hemisphere. Books for its re-education are without any pictures, in black-and-white print, in order not to distract learner’s focus. When deciding what language – German or English – would be more appropriate to learn with this type, researchers indicate English as more appropriate.

Right-hemispheric dyslexia, or P-type (perceptual), is, on the other side, characterized by a slow, fragmented but accurate reading with low comprehension. It may be described as a beginner reading, that can not be surmounted without specialized assistance, which is done by means of left-hemisphere stimulation – e.g. by tasks focused on communicative competence development. P-type dyslexia is often diagnosed in children with developmental dysphasia or those having a small vocabulary and aversion towards talking. These children are also called spellers. For these dyslexic learners, German is more appropriate to be learned when compared to English.

Third type within this distinction - so called M-type (mixed) – has been recently proposed. This group is characteristic by slow reading and quite some substantive

3.8.3. Visual, auditory, or motor processing difficulties

Within this division of dyslexia sub-types “three main areas of language processing difficulties […] can be identified. Someone may have difficulties in one, two or all three of these areas, but usually one or two difficulties predominate” (Krupska, 1995, p. 33).

**Visual processing difficulty** is a problem with a visual perception of print. Learners with this sub-type usually have difficulties with recognizing familiar words, letters – as they say – do not hold still, and so it is very hard for them to distinguish individual letters and words. Their reading is also quite slow, delivering each word separately. They have to put all their focus onto the decoding process, so no energy is left to comprehend its content.

**Auditory or phonological processing difficulty** is the opposite of the visual one, when talking about comprehension. Reading of these learners nearly fully depends on excellent understanding the text, so they can substitute word, they can not read, with its synonymy. These people have a very poor memory for sounds, so they must rely on their visual appearance – having a bank of words they can recognise as a unit. On the other side, also in this case, reading style is very slow and hesitant. Difficulties with names or words recollection are frequent too.

**Motor processing or motor integration difficulty** is related to writing problems, more than to reading. I mention it here, just because they are often closely related to visual processing difficulties and so they belong into this group. (Krupska, 1995, p. 33-35)
4. Developing reading skills

Literacy is necessary for survival in daily life – whether it is to read road signs, to shop in a supermarket, to know how to work the video or to read directions on the medicine bottle. In all advanced cultures the ability to read, write and spell is vital for communication and employment. Proficient reading is an essential tool for learning a large part of the subject matter taught at school (Ott, 1997, p. 50).

4.1. Stages in the development of reading

Developing reading skills is an enormously complex system that needs to be undoubtedly segmented into individual phases. There are several models, out of which those by developmental psychologist Uta Frith (1985) and the City University of New York professor Linnea C. Ehri (1991) are being quoted probably most often. They both break down early literacy development into three distinct stages, using different titles, however having very similar content. In Firth’s model, these stages are called: logographic, alphabetic and orthographic, while Ehri labels them as: emergent readers, phonetic cue reading and cipher sight word reading. (Thomson, 1998, p. 13)

Logographic or emergent readers stage can be generally described as a period when children recognise written words as one unit without any sound–symbol association. These words, having certain significance for him, are read as logograms, which means, they help in building an early sight vocabulary.

Alphabetic or phonetic cue reading stage follows when the child begins to recognise letter-name-sound correspondence. This phase requires phonemic awareness in order to be able to decode new words. It involves the application of phoneme- grapheme rules that are taught by means of the phonic, or in another words analytical- synthetic reading method. For each dyslexic child, moving from the logographic to alphabetic stage is a very important and challenging step. In this case, multisensory methods – that are described closely later in the text (chapter 4.3.4.)– are an excellent tool. (Broomfield, 2000, p. 29)

Orthographic or cipher sight word reading stage is the final period of the reading-learning process, which could be characterized by an automatic word recognition, as well as by usage of contextual cues that help in reading comprehension. This phase involves sight recognition words storage, associated with a mental lexicon. (Ott, 1997, p. 53-54, Thomson, 1998, p. 13-14)
Besides this three-stage development categorization, another, more detailed system – focusing on essential stages of teaching reading skills – may be effective. Due to its higher complexity and clearer structure, it is analysed in the following chapter and also used as a key-reference for the developing reading skills methodology described in the practical part.

4.2. Essential stages of teaching reading skills

There are five basic steps when developing reading skill. Each of these steps stems out of the previous one and they are all interconnected. This concept comes logically out of the Frith’s system described in the previous chapter, using just a different structure. Each of these stages represents unsubstitutable element on the long journey of reading skills development. According to the US National Reading Panel (NRP) and its report from 2000, the stages, described in following subchapters are, phonemic awareness, phonics, vocabulary development, reading fluency and reading comprehension strategies.

4.2.1. Phonemic awareness

Phonemic awareness, as the first step within various teaching methods – e.g. the phonic/analytical-synthetic method that is described closely in the chapter 4.3.2., and that is taken as the key-method for the whole case-study program. Aim of this stage is to be able to listen to a word or a syllable and break it into individual phonemes. In other words, “phonemic awareness refers to the ability to identify and manipulate phonemes in spoken words” (Antunez, 2002). Lack of this ability is the most powerful determinant of possible failure in learning to read. Children with lack of this awareness are not able to deal with various tasks, such as:

- phoneme segmentation – e.g. what sounds do you hear in the word *hot*?
- phoneme deletion – e.g. what becomes of *cat* without the *k* sound?
- phoneme matching – e.g. do *pen* and *pipe* start with the same sound?
- phoneme counting – e.g. how many sounds are in the word *cat*?
- phoneme substitution – e.g. what becomes of *hot* when *h* turns into *p*?
- blending – e.g. putting sounds together – *h* *o* *t*
rhyming – e.g. naming words that rhyme with one given word - *pot*

(Bright Solutions for Dyslexia, 1998, b)

These abilities should be greatly developed within early stages of learning EFL, by means of meaningful activities such as language games or various songs and poems with rhythm and repetition that are easy to memorize. It means this stage also involves learning new vocabulary words, their meaning and their pronunciation. In a conclusion, it is important to stress that phonemic awareness must exist or be taught before phonics instruction begins. (Antunez, 2002, Bright Solutions for Dyslexia, 1998, b, Thomson, 1998, p. 14-15)

4.2.2. Phonics or phonological processing

Phonics or phonological processing as the second step in developing reading skills means “understanding that there is a predictable relationship between phonemes and graphemes” (Antunez, 2002). The aim of this stage is to link individual sounds and their phonograms – to letters or groups of letters representing a sound. Each link between symbol and its sound needs to be checked and practiced by means of using multisensory approach. Every phonogram should be distinguished: visually – in various print-forms and auditory – recognising its presence and eventual position in a word, as well as learned to say – being able to pronounce it, and to write. (Broomfield, 2000, p. 96) In the end of this process the link should be fluent and automatic. On the other hand, this is just the ‘roadblock’ for learners with dyslexia. They can learn phonics in isolation, however there is a problem with its usage when dealing with unknown words. (Bright Solutions for Dyslexia, 1998, b, c)

“Both phonemic awareness and phonological processing are auditory processing skills. Therefore, they can – and should – be taught before letters are introduced” (Bright Solutions for Dyslexia, 1998, b). Although, this statement may function in the English language environment, it becomes more complicated in the EFL situation. Therefore, in my opinion, these skills should be introduced and developed within early stages of foreign language study, ideally during an audio-oral course stage.
4.2.3. Vocabulary development

Vocabulary development “refers to the knowledge of stored information about the meanings and pronunciations of words necessary for communication” (Antunez, 2002). Lexicon development is one of the greatest challenges when teaching reading, because not only phonics, but also context is really necessary for its fluency and comprehension. In other words, “vocabulary development is a primary determinant of reading comprehension” (Antunez, 2002). Therefore, vocabulary needs to be taught, not just to dyslexic but to all learners, since the very beginning of the developing reading skills process. (Antunez, 2002)

For this task, various – mainly multisensory – methods and strategies could be used. For learners – not only - with dyslexia, word-games - such as pairs, domino, lotto, snakes and ladders, bingo, tactile activities – using sand, paints or plastic letters for tracing new words, dramatizations, mind-maps and many others are highly beneficial. (Broomfield, 2000, p. 103) Broomfield also refers to reading cards that may help in memorizing, practicing and recalling certain key-words. These could be just any words that are important within certain lexical sets, or – when using analytical-synthetic teaching method – they could be representatives of individual sounds. (2000, p. 101-102, 104)

4.2.4. Reading fluency

Fluency is “the ability to read words accurately and quickly, […] and it is also a critical factor necessary for reading comprehension“(Antunez, 2002). Fluent, oral reading more likely supports the comprehension, as well as memory-storage of the content, than when reading with difficulty, spending too much energy on the reading process itself.

There are two basic approaches used when teaching reading fluency. The first one is based on the guided oral reading, when the learner is systematically and explicitly provided with a feedback from the teacher. The second approach works, on the other hand, with independent silent reading, that encourages students to read silently on their own. In this case, the teacher plays much less dominant role, providing just minimal guidance or feedback. (Antunez, 2002)
To increase reading speed, there is also a variety of ways how to do that. Some of them, as Ott mentions them in her book, are:

- tape-recording pupil’s reading of a short text, listening to his own reading, self-reflecting his own errors and reading the text again, when trying to beat his own record
- paired reading, when teacher or parent reads together with the child and uses various corrective methods in case of child’s error, that may happen especially when reading unknown words
- various competition games, when pupil gets point for each correctly read line and teacher for the one on which pupil makes a mistake

(Ott, 1997, p. 74-75)

In the case of dyslexia readers, oral reading should be lowered to minimum. Dyslexic learners should never be exposed to an oral reading of an unknown text. Reading rate of children with moderate or severe dyslexia is also usually much lower than in case of non-dyslexic readers. (Bright Solutions for Dyslexia, 1998, c) As the severity of dyslexia plays role in the reading fluency – and also comprehension, there should also be made a note about influence of the Bakker’s dyslexia typology. As it was already analyzed in the previous text, L-type dyslexic learners read quickly with errors, while P-types’ reading is accurate, but slow and the comprehension is also on a very low level.

4.2.5. Reading comprehension

Reading comprehension is “the culmination of all of the reading skills and the ultimate goal of learning to read” (Antunez, 2002). It is important to master all four above analysed skills to achieve it, as well as, in the opposite direction, reading comprehension promotes reader’s proficiency in the area of those skills. (Antunez, 2002) Reading comprehension is an active process in which thoughtful and intentional interaction between the reader and the text is required.

In the process of reading comprehension development, a lot of attention, as well as various specific learning components need to be provided. In several literary sources, there are various lists what learners need for effective reading, such as purpose for reading, pre-existing knowledge about the subject of the text, discussion of the main
ideas and characters and so on. However, these listings are not made for EFL learners. In this case, motivation and interest in the topic may help as well; on the other hand elements such as knowledge of the lexical set used in the text are playing their role too. Activities and tasks with focus on movement, colours, pictures or graphs, multisensory items and all other elements resulting from learners’ individuality, his strengths and learning style, are primary within this stage. As many of these activities are being used within my research, its listing, description and analysis is included in the practical part as well. (Stowe, 2000, p. 84-85, Hurtová, 2006, p. 27)

4.3. Teaching methods

As following Ott’s and Broomfield’s terminology, there are several methods that could be used when developing reading skills. Based on these two literary sources, there are various systems for sorting these methods. According to Ott, there are four major methods – the whole word or look and say method, the phonic method, the whole sentence method or the language experience model and the alphabetic multisensory method. On the other side, Broomfield categorises a bit more and uses two main approaches with each of them comprising two methods – bottom up approach with look and say and phonic methods and top down approach with shared reading and the language experience method. (Ott, 1997, p. 51-53, Broomfield, 2000, p. 31-34) As the information of these two major literary sources markedly overlap, the aim of the following subchapters is to integrate them into one compact unit.

4.3.1. Whole word/look and say method

This method, together with the phonic method, belongs to the bottom up approach. It means, they are both based on the process when beginning reader starts at the level of the print and smoothly moves upwards towards the meaning of the whole text. (Broomfield, 2000, p. 31)

The basis of this method lies in showing learners whole words – or even phases, following the presupposition that repeated visual perception helps in memorizing and immediate recognition of the words as visual units. Based on Broomfield, “this [method] uses a core of words accepted as most frequently occurring in written texts
and in children’s own reading and writing” (2000, p. 31), that are mostly referred to as keywords or high-frequency words. For this purpose, flash-cards, reading games and activities aimed at increasing sight vocabulary have been frequently used. (Ott, 1997, p. 51)

However, this method is not lately broadly supported within the English as the first language environment and, in my opinion; it is not the ideal concept for the EFL dyslexia learners either. Generally, when learning any foreign language, most of the vocabulary – needed for effective reading, is already learned as a visual unit, and so any lesson following this method can not provide as much support as other methods or their combination. In this field, difficulty with defining the vocabulary core might occur as well.

When talking about the situation in English speaking countries, Hinshelwood’s statement about not many pupils being able to be taught to read using the look and say method, should be mentioned. As he advises, “[learners] should be taught to read on the old [phonic] method, beginning with the letters of the alphabet […] and then to read the simple words […] spelling them out letter by letter” (Ott, 1997, p. 51). In addition, the look and say method can be very ineffective for many pupils, especially for those with dyslexia, because – as stated by Thomson and Watkins (1990) - it requires exactly those elements – such as short-term memory, in which dyslexics are not very strong. (Ott, 1997, p. 52)

4.3.2. Phonic/ analytical-synthetic method

That is why most clinicians who teach dyslexic learners agree on the necessity of explicit phonetic instruction in an effective re-educational program. Phonic method thus is frequently used, being based on the knowledge of letter-sound correspondence. Both, synthetic – how to take individual sound or letter and put it together to form a word, and analytic – how to look at a long word and break it into smaller pieces, must be taught all the time. Dyslexics being taught by means of this method learn to sound out individual letters in words, which is a very useful skill for deciphering un-familiar words, aiming towards being a much more independent reader. Re-educational programmes based on this approach rely mainly on games, activities and texts with controlled vocabulary range, limited to words consisting mainly of the sounds that have
been already learned. This kind of text can provide learner with a confidence and encourage him in further independent reading development. (Bright Solutions for Dyslexia, 1998, d, Broomfield, 2000, p. 32, Ott, 1997, p. 52, Stowe, 2000, p. 63)

On the other side, there are two elements making this method not so appropriate. Firstly, as many clinicians highlight, over-reliance on teaching phonetic details and its accompanying omission of the word or sentence meaning, may create slow, unmotivated readers. (Stove, 2000, p. 63-64) Secondly, as many dyslexic readers have a very limited phonological awareness, it may be very difficult for them to blend and synthesize sounds. In addition, even though they achieve this ability, it may cost them too much energy, which then does not remain for the reading comprehension stage. (Ott, 1997, p. 52-53)

In the case of an EFL re-educational lesson, I am convinced; choice of this method should be mainly beneficial. Dyslexic learners do not usually begin to learn English during very early stages of their school-attendance, and so there should be enough space for development of analytical-synthetic reading techniques in Czech, which could be built on later within EFL. In the situation, when this time is not provided, audio-oral approach should be applied. In my opinion, this method may also precisely supplement the whole word method that is used by most of the pupils when learning new vocabulary.

4.3.3. Top down approach

The term top down approach refers to “the reader starting with the whole text, looking for meaning based on contextual clues and then using these to work down to the level of the print of the page” (Broomfield, 2000, p. 31). As all the methods within this approach begin on the level of text, they are not fully employable within the environment of EFL. However some of its elements may still be beneficial and so a brief characteristic is provided in two following paragraphs.

**Shared reading method** is based on parents reading books to/with their children. This is of course a highly suggested concept when dealing with acquisition of mother tongue literary skills; however in EFL it is no easy task. Shared reading is also called whole language, or real books method. The term real books then reflect the usage of picture, story or information books. Usage of picture books by teacher, both in EFL
and individual re-educational lessons is clearly beneficial and supportive in the area of
the whole literary skills development for dyslexic as well as non-dyslexic learners.
(Broomfield, 2000, p. 33)

Language experience method is another group within the top down
approaches. It, as well as the shared reading method, focuses primarily on the content.
Learner, using this method, is being encouraged to use the meaning of the sentence to
help him in getting the sense of its individual words. Cloze or multiple-choice texts can
be used for this purpose. This method’s disadvantage lies in non-sufficient vocabulary
knowledge that may lead to failure in the reading task. For learners with dyslexia, both
of these methods are highly challenging as they require quite extensive vocabulary
and/or phonics knowledge. (Broomfield, 2000, p. 34, Ott, 1997, p. 53)

4.3.4. Multisensory learning

Multisensory learning is sometimes titled as a special approach within all these
reading-development approaches. It stands above all of those already described
approaches and as its title suggests, it is based on active involvement of all the senses
employable in EFL. As Margaret Byrd Rawson, a former President of The Orton
Dyslexia Society said:

Dyslexic students need a different approach to learning language from that
employed in most classrooms. They need to be taught, slowly and thoroughly,
the basic elements of […] language – the sounds and the letters which represent
them – and how to put these together and take them apart. They have to have lots
of practice in having their writing hands, eyes, ears, and voices working together
for the conscious organization and retention of their learning. (IDA fact sheets)

By its means, learners, and especially those with dyslexia, are better able to
establish automatic links between sound and symbol, which is the key component on
the path of reading skills development. A very important point, as also Broomfield
reminds in her book is that “the objective is not multisensory teaching from the teacher:
the objective is multisensory learning with the learner” (2000, p. 36). This learner-
targeted aim is then together with the application of multisensory principle one of the
essential elements of every, not only reading re-educational, lesson. (Ott, 1997, p. 53,
Broomfield, 2000, p. 35-36)
There are also several broadly respected teaching systems – such as **The Orton Gillingham Multisensory Method** or its continuator **The Barton Reading and Spelling System**, following an extensive cluster of principles; however multisensory elements have the leading position among all of them. Both of these teaching systems are based on the analytical-synthetic method, teaching English phonic system at first, followed by the syllabic system, spelling probabilities and rules and so on. Besides the multisensory and phonic elements - systematic, cumulative, direct instruction or diagnostic teaching principles, as described in detail in the chapter 4.4., are being followed. (Bright Solutions for Dyslexia, 1998, d, Barton reading and spelling system, Broomfield, 2000, p. 36-37)

4.3.5. What reading method works best for learners with dyslexia?

When focusing purely on choosing the most suitable method for developing reading skills in learners with dyslexia, there is apparently no clear single path. Each of those, already above described methods, has its positive as well as negative elements. As Stowe comments:

> Most clinicians who teach students with dyslexia agree that there has to be explicit phonetic instruction for a program to be effective. [...] On the other hand, many clinicians are aware that an over-reliance on the details of phonetic instruction to the exclusion of thinking about what the words and sentences mean can also create slow, stilted, unmotivated readers” (2000, p. 63-64).

In the Czech environment of EFL lessons, both of the bottom up approaches contain certain elements that EFL readers should benefit from. On one side, EFL learners with dyslexia should tend to the analytical-synthetic method, as it is used for learning how to read in Czech as well, on the other side, tendency to the whole word reading method should draw from their global learning style. (Zelinková, 2003, p. 167,169)

On the other side, there are two good points, made by Ott, diverting these thoughts about the ideal method. The first one states that “the vast majority of [dyslexic] pupils learn to read whatever the method used but about twenty per cent of pupils fail to learn effective reading” (1997, p. 51). The second of them focuses more on the teacher’s role in making decision about the method. It emphasises that “the proficient and successful teacher will be familiar with all these methods and will incorporate elements
of each in [his] teaching“ (1997, p. 51). In a conclusion, it means that knowledge of our pupils and their learning styles, together with a variety of teaching methods and selecting their most effective and suitable elements, are the solution in the area of developing reading skills.

4.4. General principles for teaching reading skills

On the top of the awareness of our pupils’ learning style and appropriate teaching methods, there are several principles that should frame every successful reading program. As C. M. Stowe writes, they are “simple and basic, but they are also very powerful” (2000, p. 56). Based primarily on her book, there are these principles:

- **Involve the student** – being actively involved in own learning is beneficial for all pupils, but in case of those with dyslexia this recommendation becomes even more important
- **Use multisensory teaching methods** – it is important to make sure that learners can see, hear, say and write what they learn with focus targeted on their individual learning style – multisensory language teaching requires the direct teaching with continuous learner-teacher interaction
- **Teach students to use logic rather than rote memory** – as dyslexics usually have an above-average IQ, but difficulties with their long and short-term memory, acquiring language as a logical system of interrelated rules (which English with its eighty-five per cent of phonetically regular lexicon is) is highly recommended
- **Present material sequentially** – start from the very beginning and work, together with the learner, on his knowledge (metaphorically pictured as a house) having a strong and solid foundation – materials used should systematically follow the logical order of the language – all the knowledge should be cumulated
- **Present material in small units** – when teaching new sounds and symbols, only one or two should be presented at a time, otherwise he might remember none of the material
- **Practice, practice, practice and review** – provide opportunities for repetitive and various practice as well as review of every unit introduced within the program
- **Help students organize time and space** – it provides them with an overview that puts details in their proper places – simple information about what will happen,
not just during the lesson, but within the whole program, provides them with a predictable and safe environment for learning – neat classroom organization and learning how to deal with multiple assignments plays also an important role

- **Individualize instruction** – it is important to provide pupils with their own learning pace, let them build on their strengths and suppress their weaknesses
- **Always be aware of the emotional climate** – make the pupils forget about their insecurities and provide them with the experience of success
- **Laugh a lot** – make the pupils to feel relaxed and comfortable
- **Provide ‘dyslexia-friendly’ text** – make all the levels of print – letters, words, lines, paragraphs, whole pages, as visually appropriate as possible

(2000, p. 51-56, IDA fact sheets)

4.4.1. Making the text dyslexia friendly

As one of the last, but not least elements supporting dyslexic learners’ reading skills development, should be the visual appearance of text. As it was already stated in one of the previous chapters, visual perception of many dyslexic learners is different compared to other people. That is the reason why there are various rules, principles and recommendations in order to make the text as dyslexia friendly as possible.

**Font type** is one of the most important elements when preparing text for dyslexic learners. “Fonts should be rounded, allow for space between letters, reflect ordinary cursive writing and be easy on the eye (BDA, 2007). There is an enormous number of various type faces, while some of them are more difficult to be read by dyslexics than others. Although this preference is highly individual, there are proves about certain font types being more appropriate for readers with dyslexia. According to the British Dyslexia Association (BDA) webpage, the article by Ian Litterick and others, the best choice are so called sans-serif (=without serifs) fonts. They are preferred by many teachers, even though their usage can lead to confusion with some letter combinations, such as *oa* and *oo*; *rn* and *m*. On the other side, serif fonts, such as Times New Roman and others tend to obscure the shapes of letters and so they become nearly illegible for many dyslexic learners. (BDA, 2007, Litterick, 2003)

That is why, various dyslexia friendly fonts, such as Arial, Comic Sans, Tahoma, Sassoon, Tiresias, Myriad Pro and many others are being designed. Especially
the Comic Sans type face is then often highlighted – even though some people find this font too bold, informal, or even childish, because of its slight alternation of standard shapes, in order to avoid possible dyslexia confusions – e.g. in b, d, q and p letters. Another interesting dyslexia-friendly font is Sassoon. It was originally designed for early reading, however today it is highly recommended for readers with dyslexia. Letter shapes of this type face are similar to those that English schools use to teach handwriting, with exaggerated ascenders and descendents in order to emphasise individual word shapes. (BDA, 2007, Litterick, 2003)

When talking about ascenders (upper letter stems – e.g. b, d, h etc.) and descendents (lower letter stems – e.g. p, q, g etc.), their importance in the legibility of text can not be omitted. Many dyslexic readers rely on recalling the visual shape of individual letters and so these may help them identify the letter more easily. Letters having too short ascenders as well as descendents are more difficult to be recognised, making the whole reading slower and less accurate. (Litterick, 2003)

In the area of individual letters – before moving on the whole text features, question of text-size and upper vs. lower case letters usage should be commented on as well. As Krupska highlights in her book, larger print, than teacher would use for himself, should be used in case of dyslexia learner. (1995, p. 77) When being more specific, minimal size twelve or fourteen is being suggested by the BDA. In the case of making photocopies, Krupska also suggests to enlarge them if possible and especially never reduce the print size. (1995, p. 78) As it is recommended by the BDA, lower case letters should be used rather than capitals every time when possible especially because „using capital letters for emphasis can make text harder to read“ (BDA, 2007) and reader of such a text may have a feeling he is being shouted at.

When moving upwards, decisions about appropriate text alignment, spacing or total amount of text per line should be made in order to comfort the learner when reading. It is generally recommended to use just the left margin alignment with ragged right side. All the words in one line should then have even amount of space between them, so letters do not seem jumbled together, and so it is easier for the dyslexic reader to follow the print. Each line should also have limited amount of words or characters. The BDA recommends limiting lines to sixty to seventy characters and Krupska writes about the average of twelve words per line. It is important especially in order to ease
tracking of individual lines. The last, but not least important feature of each dyslexia-
friendly paragraph should be its spacing. As the text should not be dense within a line as
well as within the whole page, it is recommended to use 1.5 or 2 spacing of lines. Para-
graphs should be short and empty line between them is broadly suggested. In order
to improve reader’s orientation in the text, highlighting, numbering or using various
colours for individual lines may be also beneficial. When emphasising some text, bold
print should be used instead of italics of underlining, as these two ways can make the

Not only **colours of text** in individual lines, but also **colours of the paper** –
done by means of printing on colour-paper or using tinted strips, overlays and lenses
may improve the process of developing reading skills of learners with dyslexia. Ac-
According to the BDA, dyslexics using these overlays said that “the print stays still and
does not dance about” as well as that “it is not as dazzling as white paper” or that “the
spaces between words are clearer, so they can concentrate on the words” (2007).
Preference for specific colours differs from person to person – though blue is stated as
the most commonly preferred one, and so experimenting with various backgrounds is
necessary. On the contrary, it should be also stated, that not all researches agree with
these beneficial aspects of colour-overlays usage. As R. F. Hudson refers to the
American Optometric Association (2004) and Iovino, Fletcher, Breitmeyer and
Foorman (1998) study outcomes, “there is no strong research evidence that intervention
using coloured overlays or special lenses has any effect on the word reading or
comprehension of children with dyslexia” (2007). As the majority of literary sources,
used for this thesis, support the concept of using colour overlays, its effectiveness is
tested within the research and its results are described in the practical part.
5. Research

*If we do not know what we are looking for, we do not understand what we find.*

(H. Poincaré – my translation)

The overall aim of this part of my thesis was to verify the effectiveness of the whole reading-development program, using various techniques, designed for dyslexic learners. In order to achieve that, several partial aims had to be established, while each of them always stemmed out from the previous one. As the whole research could be divided into three main parts - initial data collection, analysis and interpretation, re-educational program itself and final data collection including its analysis and interpretation - each of them had its own aim, supplemented individually by a set of questions to be answered after its completion.

The initial data collection-instruments were used in order to gain information about the scope and variety of techniques, used in the school the research took place, to be analysed and used as the initial-point for all the following actions. To verify a successful achievement of this aim, two key-questions were formulated:

- **Q1:** What reading-skills development techniques are used by the English language teachers when working with dyslexic learners?
- **Q2:** What is the selected learners’ initial reading-skills level from the viewpoint of their English language teachers?

Using answers to these questions, a special program was designed and implemented. This phase was given a great focus, since its aim was – despite its time limitation, to achieve an evident development of reading skills, by means of using suitable techniques and activities, reflecting learners’ individuality. To do that, a learning styles (VARK) test was used in the beginning, together with an initial reading test, providing early information about boys’ learning preferences and their reading abilities, to be compared to the final reading test results. For a clear verification, whether the aim was achieved, one question for each step should be answered.

- **Q3:** What is the selected dyslexics’ learning style?
- **Q4:** What is the learners’ initial level of reading skills?
- **Q5:** What is the learners’ final level of reading skills? - What is the measurable learners’ reading skill development?
After its completion, the third and a really complex phase followed. Though it was not as time-consuming as the previous one, its aim was to acquire and analyse an individual perception of the program from the viewpoint of all involved parties. For its verification last three questions were created:

- **Q6:** What is the learners’ and their parents’ perception of the program effectiveness?
- **Q7:** What is the selected learners’ final reading-skills level (reading skills development) from the viewpoint of their English language teachers?
- **Q8:** What is my own perception of the program effectiveness, using a reflective diary?

As already stated in the text above, each individual action and reason for its implementation, stemmed right out from the previous one. In order to follow this logical structure, chronological ordering of individual chapters is used for the whole text of the practical part. In the very beginning, there was constructed a time scheme for all necessary actions, which is described in the following chapter. Besides the time scheme, there is a listing, analysis and benefits of all data collection instruments, followed by a characterization and analysis of the three basic parts of the whole research, including answers to those above stated questions.

### 5.1. Background information

In order to implement not only effective program, but also to ensure high validity and reliability of all collected data, dyslexic learners - hopefully ensuring all this, had to be searched out. Even though every selection must follow certain criteria, in this case, their amount was not really extensive. The main criteria used when searching for pupils suitable for this case-study were:

- their age - having already certain level of English, and
- dyslexia itself being the dominant disorder (as in most cases it combines with dysgraphia and others)

On that account, school pedagogical-psychological centre was contacted and two boys suitable for the research were chosen. As many authors highlight in their works, “each case of dyslexia is different, because dyslexia is a self-created condition [and] no two dyslexics have created it in exactly the same way” (Davis, 2006, p. 6). That is the reason...
why my research focuses just on two dyslexic learners. Therefore, this case-study can focus clearly on their individual characteristics, their strengths and weaknesses, their learning styles and by means of combining all this information, the most effective re-educational program can be implemented.

In order to protect all their personal data, fictitious names – Nicholas and Garrett are used throughout this whole work. On 13th of November, the first contact with their parents was made and also their consent was acquired. Acquiring all the accessible, re-educational program related data was the next step. Its aim was to get dyslexia background information of both boys, which should be used as on of the basis for the program preparation.

Table 2: Initial information about learners in research

<table>
<thead>
<tr>
<th></th>
<th>Garrett</th>
<th>Nicholas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School grade/years</strong></td>
<td>5th grade/2nd year</td>
<td>7th grade/ 3rd year</td>
</tr>
<tr>
<td><strong>of English</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level of dyslexia</strong></td>
<td>mild</td>
<td>moderate</td>
</tr>
<tr>
<td><strong>Laterality</strong></td>
<td>Corresponding dominance of right hand and right eye</td>
<td>Corresponding dominance of right hand and right eye</td>
</tr>
<tr>
<td><strong>Intellectual abilities</strong></td>
<td>Above average range – more developed verbal aspects of talent</td>
<td>Above average range – more developed verbal aspects of talent</td>
</tr>
<tr>
<td><strong>Reading (in Czech)</strong></td>
<td>- under-average speed</td>
<td>- whole words (mostly successful)</td>
</tr>
<tr>
<td></td>
<td>- whole words (mostly successful)</td>
<td>- if not – syllabication</td>
</tr>
<tr>
<td></td>
<td>- longer pauses between some words</td>
<td>- longer pauses between some words</td>
</tr>
<tr>
<td></td>
<td>- in time: results become uneven + amount of errors rises</td>
<td>- in time: results become uneven</td>
</tr>
<tr>
<td></td>
<td>- points to the text he reads</td>
<td>- focuses on fluent continuous reading style (not successful all the time)</td>
</tr>
<tr>
<td></td>
<td>- problems with smaller print</td>
<td>- sometimes longer pauses between words</td>
</tr>
<tr>
<td><strong>Recommendation:</strong></td>
<td>- larger print</td>
<td>- whole words</td>
</tr>
<tr>
<td></td>
<td>- reading in duet</td>
<td>- reading in duet</td>
</tr>
</tbody>
</table>

(Pedagogical-psychological advice bureau in Hradec Králové, 2006)

5.2. Time scheme and data-collection instruments

When having all this basic information, a time scheme creation for the whole research period could follow. Making list of actions that need to be taken became the basis for a complex schedule.
Table 3: List of actions and time scheme for their implementation

<table>
<thead>
<tr>
<th>Action</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation of <strong>data collection instruments</strong> (questionnaires, learning styles test, initial reading test)</td>
<td>16. 11. – 1. 12. 2007</td>
</tr>
<tr>
<td>Distribution of <strong>questionnaires</strong> for all English teachers and <strong>initial interviews</strong> with boy’s English teachers</td>
<td>10. – 14. 12. 2007</td>
</tr>
<tr>
<td>1st lesson with selected dyslexic boys – <strong>initial reading test and learning styles test</strong></td>
<td>17. 12. 2007</td>
</tr>
<tr>
<td>Keeping <strong>reflective diary</strong></td>
<td>17. 12. 2007 – 13. 3. 2008</td>
</tr>
<tr>
<td><strong>Re-educational lessons</strong></td>
<td>17. 12. 2007 – 13. 3. 2008 (twice a week – Mon + Wed/Thu)</td>
</tr>
<tr>
<td>Final reading test and structured interview with boys</td>
<td>12. and 13. 3. 2008</td>
</tr>
<tr>
<td>Distribution of <strong>questionnaires</strong> for boy’s parents</td>
<td>27. – 28. 2. 2008</td>
</tr>
<tr>
<td><strong>Final interviews</strong> with boy’s English teachers</td>
<td>10. – 14. 3. 2008</td>
</tr>
<tr>
<td><strong>Analysis and interpretation</strong> of collected data</td>
<td>1. – 16. 3. 2008</td>
</tr>
</tbody>
</table>

Based on the list of planned actions, described in the chart above, there was also a necessity for decision about research methods and techniques, followed by a creation of data-collection-instruments set that were crucial for the successful implementation of this case-study.

From the extensive list of research methods – provided e.g. by Pelikán (2007) or Zelinková (2001), those applying the most to needs of this case-study were chosen. In order to employ as many positive aspects as they may provide, explorative method – comprising interview and questionnaire, behaviour method – comprising observation and test method – represented by a reading-skills test, were used. (Pelikán, 2007) Afterwards, data-collection instruments aiming on the qualitative (reflective diary, questionnaires for interview with boys’ English teachers, questionnaire for parents and questionnaire for interview with boys) as well as quantitative (learning styles test, reading tests and questionnaires for English teachers of learners with dyslexia) data outcomes were prepared and used.

Even though each of the above mentioned methods and data-collection instruments have many positive features (personal contact with the interviewee, easiness to use in questionnaire, etc.), there are of course also several negative ones (high subjectivity in questionnaire, validity problems in interview or questionnaire, etc.).
Therefore all the tools and methods were combined, in order to outweigh all these negatives, and intensify the validity as well as reliability of the overall data obtained within this research. (Pelikán, 2007, Zelinková 2001)

5.3. Initial data collection and analysis

In order to acquire all the possible, and for this research relevant, information from the view-point of English teachers in the school this research takes place, two data-collection instruments were used. A questionnaire, focusing on the teachers’ awareness and usage of various techniques and strategies, making the teaching-learning process more dyslexia-friendly as well as effective, and a structured interview with boys’ English teachers - where getting information about these teachers perception of boy’s personality, learning styles and especially their level of reading skills, were used. Both of these data-collection tools were used according to the time schedule, and its results are presented in these two following chapters.

5.3.1. Questionnaire for English teachers of learners with dyslexia

It was used with the aim of getting overall data about the usage of special techniques and approaches when developing reading skills in learners with dyslexia within the school. In another words, the first of my questions - what reading-skills development techniques are used by the English language teachers when working with dyslexic learners, should be answered by means of this instrument.

A questionnaire was chosen above an interview especially because of its simplicity, and also due to the time-factors. Even though, this questionnaire was not intended for children, seven yes-no or multiple choice questions were used when possible, to clarify and simplify the whole process. In order to gain informative data, it was distributed among all the English teachers at the school, according to the time scheme, their answers were transcribed into the form (appendix 1), and its outcomes are analysed and interpreted in the following paragraph.

There are fifteen classes (5th – 9th grade) where English is taught by these teachers, and where twenty-two learners with dyslexia and related disorders are present. As individual teachers have different amount of classes, the first question’s major
outcome was just the information that number of dyslexic learners in individual classes ranges from zero to four and that the most of dyslexics are currently in the 7th grade – from which is also one of the boys chosen for the case-study.

The second question, targeting on possibility of adaptation or adjustment of reading activities/tests for the whole class, where some dyslexics are present, was answered mainly in a positive way - three-times yes and only one-time no, followed by a question about techniques used in order to do that. Responses to this question contained strategies such as - usage of dyslexia-friendly font type and text organization, reading comprehension being tested mainly by means of using multiple-choice answers or various drawing or drama interpretations, and also focus on English phonetics – which generally makes the impression, much more techniques could be used and so it provides a great space for a future improvement.

The next part – questions number four and five, aimed at usage of various techniques and approaches towards individual dyslexic learners. According to the answer-sheets, all four teachers incorporate some of these approaches into their lessons, which is numerically documented within appendix 1, and analysed in detail in the following paragraph.

When interpreting what is clearly stated in the table (appendix 1), most often used techniques – preferred by all four teachers, are un-timed tests, acceptation of phonological transcription, usage of just silent reading and oral testing instead of written one. On the other side no, or minimum of the teachers: take dyslexics’ limited reading-rate into account by means of evaluating just completed part of the task/test, organize vocabulary in a dyslexia-friendly visual way or reduce their homework load. The overall result seems quite uneven, however positive answers prevail. Outcomes of this question were discussed with all the teachers involved, and possibly some shift in usage of individual accommodations will appear.

The last segment of this questionnaire asked about teachers’ knowledge of their dyslexic learning styles and strategies, as one of the base-points for choosing the most effective techniques to be used. However its outcome is not really positive. Only one of the teachers marked the yes answer, which was anticipated - as she is also the school psychologist in charge of all the dyslexic learners’ documentation.
5.3.2. Structured interview with boys’ English teachers – initial

This data-collection instrument was used as a second tool for the collection and analysis of data, necessary for a more detailed view on the current situation and a more precise re-educational program preparation. A structured interview, as one of the possible data-collection tools, was chosen though there was a high chance for a detailed discussion and supplementary questions usage, related to some of the prepared questions.

Its aim was to record teacher’s personal perceptions about boys’ personal attitudes towards learning and their behaviour during the learning-teaching process, as well as their perception of boys’ initial level of reading skills, to be compared with the final level after the completion of the program. It means, it should help with answering aim related questions number two, and later also question number six. The answer-sheet, including already transcribed answers, is listed below (appendix 2) and its analysis is to be found in the following paragraph.

Garrett’s personality was characterized as sensitive, communicative, responsible as well as friendly, and his behaviour within English lessons as active and positive, however also frequently not focused or even distracted. According to his teacher, he also does his best to be accurate in writing his homework, however when acquiring new vocabulary he has big problems with its written form. His teacher thinks he prefers kinesthetic approaches for learning (which is - as analysed in the VARK test below – true). His reading is described as very slow and unstable – making long pauses and spending too much energy on the process itself, so there is not enough left for the comprehension. In the area of accuracy and fluency reading scores were also marked (and graphically expressed in appendix 2) as quite low.

In the interview with Nicholas’s teacher, his personal qualities were marked as indifferent or bored, irresponsible, however also very sensitive and his behaviour in lessons as negative, mainly passive, with some active moments. He also often forgets to do his homework. In the area of learning new vocabulary, there is no major problem. When asking about his preferred learning style, the teacher did not know and did not want to make a guess either. Nicholas’s reading was characterized as quite fluent and he also does not make to many mistakes as he concentrates on the task. Using the
accuracy-fluency chart, level of both of them was marked as quite low with better results in fluency than in accuracy.

5.3.3. Data interpretation

When interpreting all the data obtained and analysed within this phase, those two aim-related questions should be answered primarily. Focusing on the first question – what reading-skills development techniques are used by the English language teachers when working with dyslexic learners, it should be stressed that there are some techniques already used, however there is still a great group that is not. All the teachers use mainly various compensation strategies – such as more time for a test or lower vocabulary load; however they really do not apply positive approaches that may actually lead to reading-skills development of their dyslexic learners.

To summarize and interpret the data gained by means of using the structured interview, the aim-related question number two should be answered. As asking, what is the selected learners’ initial reading-skills level from the viewpoint of their English language teachers, the answer can not be very positive. Both teachers perceive reading skills of the selected boys as very low, talking about slow reading with quite a lot of mistakes or errors. In the field of fluency and accuracy, results are quite negative as well. These results though, provide an enormous space for an improvement that should be achieved by means of the re-educational program, and proved by the qualitative, as well as quantitative data-collection tools in the final part of the research.

5.4. Re-educational program – methodology

The program was not just the most time-consuming part – lasting from 17th December 2007 to 13th March 2008, however also - and especially, the key-phase focusing on large scope of tasks and action. It reaches from the first lesson diagnostic tests, throughout preparation and implementation of individual lessons, to the final reading test. For its clear complexity it had to be divided into several sections that are being analyses separately.
5.4.1. Learning styles (VARK) test

It was used during the first lesson – on 17\textsuperscript{th} December 2007, following the aim to acquire information about boy’s learning styles, in order to be able to prepare a program in which they can build on their own strengths and priorities in learning. As a source for this test, VARK – a guide to learning styles website was used, and as the copyright of this site states a free usage of its content for teachers, no permission was asked. As there is a version of this test for young learners just in English (appendix 3), it was translated into Czech and answered by both boys. All the principles for its administration as well as its analysis, listed on the above stated website, were followed. In order to limit difficulties related to the reading process itself, the whole questionnaire was read to the boys within the lesson.

The test contains sixteen multiple-choice questions and learners can mark any amount of answers, as they feel it applies to their way of solving various situations. The aim of its usage was explained, the questionnaire was filled in, boys’ answers were evaluated according to the scoring chart, also provided on the website, and its results are presented within appendix 3.

As looking at the table, the highest amount of points indicates learner’s preferences, and so the table shows a strong priority for kinesthetic learning style in Garrett’s case, while Nicolas’s results are an exemplary case of so called multi-modal study strategy – with the read/write preference.

Following these results, a set of techniques and their modifications in various types of activities, respecting boys’ individual learning style, were prepared. For Garrett, it meant reading tasks when employing primarily his hands, body and emotions, while in the Nicholas’s case, it meant activities combining visual, auditory, read-write and kinesthetic inputs together (chapter 3.5.). Many great examples of activities focusing on the kinesthetic learning-style, also used during individual lessons and described in the chapter 5.7., are the usage of plastic letters, writing into sand/flour, writing on each-others back or palm, various dramatizations and other activities involving movement. When focusing on equal distribution of inputs, combination of an extensive set of activities had to be used. However, in both cases, focus on multisensory approach remained the key-principle of every re-educational lesson (chapter 4.3.4.).
5.4.2. Initial reading test

The initial reading test was used, following two major aims. Firstly, it was applied to test boys’ overall reading skills, in order to use it as starting information for setting the program’s level and content. Secondly, it was used to obtain quantitative data, clearly documenting boys’ reading abilities before the program to be compared with the data obtained later from the final reading test, trying to answer the aim-related question number six - what is the measurable learners’ reading skill development.

The text was taken and slightly adapted from the Come and play textbook (1990, p. 22, 96), attempting to test as many grapheme-phoneme correspondences as possible. The whole test was made in a dyslexia-friendly way (chapter 4.5.) and consisted of two short texts – with different level of difficulty and a few short expressions – testing very basic reading comprehension skills. Both boys were given time to look at the text before actually reading it, and the focus on accuracy above fluency was also emphasised. All the mispronounced or omitted words, notably long pauses, as well as the reading comprehension results were noted down and afterwards transcribed into a computer. They are, together with the original text, listed below as appendix 4.

The number of mistakes and errors differed in the case of both boys, as well as in individual parts of the whole test. At this moment, their amount is not expressed in numbers; however its comparison to the final reading test results, expressing boys’ reading skills development, is to be found in the final reading test data analysis.

Due to the wide scope of mistakes and errors, it seemed impossible to create two individual schemes for boys, to be followed when preparing the whole program. That is why, its outcomes were taken as one of the essential baselines for the reading program methodology preparation, however no distinction was made in the beginning. It was planned to change its peace or its content according to boys’ current individual needs.

5.4.3. Lesson timing

According to the boys’ age, their level of dyslexia, everyone’s time availability as well as the fact that both boys attend also regular - Czech dyslexia re-educational lessons, English reading development lessons were planned to be held twice a week. This frequency was also chosen in accordance with various literary sources (Barton
reading and spelling system or Broomfield, 2000), recommending usually at least two
lessons per week, with their length about forty-five to sixty minutes and the whole
program lasting at least two years. Although following the frequency, other two
recommendations were, or could not be applied.

Respecting boys’ age and especially the fact that the recommended lesson-length
applied to English as the first language environment, each lesson was planned to take
approximately thirty minutes, however its length may vary according to the lesson
content and especially to the boys’ current level of tiredness or concentration. Both, the
frequency and the lesson-length, were negotiated with boys’ parents and exact dates and
times for individual lessons were set.

When making decision about the total time allocated for the program, major
limit represented by the dead-line for the thesis submission had to be respected.
Therefore, the last lesson was planned to take place on 12th respectively 13th March
2008, providing maximum of nineteen lessons. According to this extremely limited
time-frame, only partial reading skills development is to be expected, however even this
should document effectiveness and legitimacy of methodology constructed for this
program. In addition, as this program may hopefully continue even after conclusion of
this research phase, more notable results in the area of boys’ reading skills may be
observed.

5.4.4. Lesson structure

In the field of structure, two stages in its hierarchy have to be analysed. Firstly it
is a level of structured plan for the whole program; secondly it is the sequence of
individual activities or steps creating the framework for each lesson.

All the items were selected and structured in order to create a logical sequence,
moving from the most basic towards more and more specific elements of phoneme-
grapheme correspondences – which means following the phonic/ analytical-synthetic
method (chapter 4.3.2.). The bottom level, used as a start-point for the whole program
was set according to the initial reading test and its results. The Step-by-Step Programme
from Broomfield’s and Combley’s book Overcoming Dyslexia (p. 121) was used as the
basis for its transformation into the EFL environment. Simple phoneme-grapheme
correspondences, especially those identical with the Czech reading system were
accepted as already acquired during Czech dyslexia lessons, and major focus was given
to correspondences present in English language only. Following individual principles
for teaching reading skills (chapter 4.4.), especially logical sequence of individual
program elements, slower pace in the beginning - so the learner could experience
success and thereby overcome possible emotional problems he might have difficulty
with (chapter 3.4.), and gradual cumulation of already learned grapheme-phoneme
correspondences were applied.

Working with the possible nineteen lesson perspective, the introduction and
practice of individual language items was planned in the following way.

Table 4: Program content

<table>
<thead>
<tr>
<th></th>
<th>Program content</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial reading test + VARK test</td>
<td>11. Monosyllabic words with silent E + A</td>
</tr>
<tr>
<td>2</td>
<td>Monosyllabic (closed syllable) words with letter A</td>
<td>12. Monosyllabic words with silent E + I</td>
</tr>
<tr>
<td>3</td>
<td>Monosyllabic (closed syllable) words with letter U</td>
<td>13. Monosyllabic words with silent E + O/U</td>
</tr>
<tr>
<td>4</td>
<td>Monosyllabic (closed syllable) words with letter E</td>
<td>14. Monosyllabic words with digraph CK + C/K words</td>
</tr>
<tr>
<td>5</td>
<td>Monosyllabic (closed syllable) words with letters I + O</td>
<td>15. Monosyllabic words with G [g] + G/J [dʒ]</td>
</tr>
<tr>
<td>6</td>
<td>Monosyllabic words with digraph TH</td>
<td>16. Monosyllabic words with Y [j + i]</td>
</tr>
<tr>
<td>7</td>
<td>Monosyllabic words with digraphs SH + WH</td>
<td>17. Disyllabic and polysyllabic words</td>
</tr>
<tr>
<td>8</td>
<td>Monosyllabic words with digraphs CH + PH</td>
<td>18. Variants of dyslexia friendly text (fonts, paper colours,...)</td>
</tr>
<tr>
<td>9</td>
<td>Monosyllabic words with digraph OO + EE</td>
<td>19. Final reading test + interview</td>
</tr>
<tr>
<td>10</td>
<td>Monosyllabic words with digraph OA</td>
<td></td>
</tr>
</tbody>
</table>

As moving from the whole program towards its individual lessons, their
structure needed to be clearly established as well. To create a logical framework, every
lesson could follow; general principles – such as sequentiality and clarity of its
structure, so dyslexic learners can rely on it, combined with basic steps stated in R. F.
Hudson’s work (2007) were used:

- **Step 1**: Brief review of sound-symbol relationships from previous lesson(s) –
  using reading cards, mind-maps, simple reading games
Step 2: Introduction of new correspondence(s), using variously graphically organized word-lists, oral reading (in pair/ by teacher + using volume or sound modifications) etc.

Step 3: Practice of sound analysis and synthesis, phoneme grapheme correspondence, grapheme identification – using multisensory teaching aids, letter and picture cards, games, rhymes, etc.

Step 4: Practice of word-meaning – building English vocabulary, using key-words as representatives of individual grapheme-phoneme correspondences – using various games, matching and gap-filling activities, labels, etc.

Step 5: Lesson summary – following cumulative principle by means of practicing today’s and previous lessons’ content, using variety of above mentioned teaching aids and techniques

5.4.5. Techniques and activities for reading skills development

Teaching aids as well as activities and techniques in which they are used, are the key-part of the whole methodology designed and implemented within this case-study program. In following subchapters, examples of those most frequently used ones are listed, described and analysed. According to similar features in the area of their usage as well as their aim, they are divided into seven groups. As an inspiration for these aids and activities, four major resource and text books were used.

- HANŠPACHOVÁ J., ŘANDOVÁ Z.. Angličtina plná her: pro děti předškolního a mladšího školního věku.
- HURTOVÁ, D., STRNADOVÁ, I., ŠIGUTOVÁ M.. Anglický nápadníček pro učitele a rodiče (nejen) dětí s dyslexií,které začínají s angličtinou.
- KASTLOVÁ, Zdeňka. Nebojte se angličtiny: pracovní listy pro žáky ZŠ se specifickými poruchami učení.

As most of the activities and their variants appear in two or more books at the same time, and so it would be very complicated to list their individual sources, the following listing contains such a reference only with those having one specific source or being copied directly from one of the above listed books.
All the below described techniques and activities attempt to employ as many principles for teaching reading skills (chapter 4.4.) as possible. Besides this, it also stems out of the essential stages of reading skills development (chapter 4.2.), using and suitably combining all the three initial stages – phonemic awareness, phonics and phonological processing, and vocabulary development.

5.4.5.1. Reading cards and mind-maps

When building new vocabulary, various techniques and teaching aids focusing on its graphical form similarities were frequently used. As the whole program followed the analytical-synthetic method, all introduced and learned words were organized in lexical sets based on individual grapheme-phoneme correspondences. For this purpose, especially reading-cards and various types of mind-maps were used.

**Reading-cards** as suggested e.g. by Broomfield (2000), are a simple and highly effective tool for making own vocabulary set, that could be used in various ways at home as well as in the lesson. In this case, it was used in order to make a set of keywords representing individual grapheme-phoneme correspondences introduced in individual lessons. Every time, boys chose three newly-learned words and turned them into the form of reading-card (appendix 5). Following Broomfield’s model, 5 x 7 centimetres cards were created, having the key-word written on one side and corresponding picture on the other one. At home, boys used them as a vocabulary revision tool, at school various sorting or matching reading-activities were used usually in the opening phase of each lesson. As the set grew more and more extensive, sorting according various aspects – such as individual phonemes or graphemes (e.g. words containing sh digraph, [k] sound, etc.), or their number (e.g. words with three phonemes such as thick, ship, pig). Usage of this teaching aid can be marked as very popular as well as effective. As mainly used in the form of home assignment, it helped to increase the time when boys worked with the new word-set and also to create valuable teaching aid on their own. When using this aid, at least two major principles – cumulative and multisensory one (chapter 4.4.), were followed.

**Mind-maps** (also appendix 5) were the second major teaching aid belonging into this area. As one of the strengths of dyslexic people is their ability to think in pictures instead of words and vivid imagination (chapter 3.3.2.), usage of mind-maps is
even more suggested than in the case of non-dyslexic learners. Within this case-study program, two forms of simplified mind-maps were used. The first, more traditional, one was used again mainly in the form of home assignment, in order to increase the vocabulary practice time outside the class. It followed similar concept as the reading-cards instrument, revising individual phonemes, by means of choosing certain number of words and organizing them in the form of mind-map. The second type was used in the lesson only, and its aim was again better visual arrangement and transparency of newly learned vocabulary sets. By means of this system, new lexical sets were also created, especially during lessons further in the program, when cumulation of all previously learned phoneme-grapheme correspondences became one of the key elements of each lesson. Both of these mind-map forms were used for the entire period of this case-study program, and they were taken quite positively by both boys.

5.4.5.2. Plastic letters and word cards

In order to involve as many senses as possible, plastic letters were used (appendix 6) as one of the key teaching aids within the whole program. They were used quite frequently in one-element revision activities, when some of the newly learned words were dictated and boys were supposed to make them by means of using correct letters, or just to create words according their own choice from given area. One of the major phonemic awareness abilities (chapter 4.2.1.) – phoneme blending development, was supported by this means.

When revising or contrasting more phoneme-grapheme correspondences at the same time, instead of individual plastic letters – whole word cards were used. In this case, specific group of word-cards was prepared and given to the boy, so he could shortly look at them. After this, individual words were dictated and the boy was supposed to put the words in correct sequence. In order not to develop just the synthesis, but also analysis, as a follow up – these words were read by the boy and needed feedback was provided. This technique was chosen especially in order to reduce writing and clearly focus just on the reading skill. Amount of word-cards used, differed in time, as well as in the individual boy’s level of reading skill. As this type of activity was usually used in the final part of certain group – e.g. monosyllabic (closed) words, and
all the words were thoroughly practiced in previous lessons, this activity did not cause any major problems.

Similar type of word-cards was used also when reading of disyllabic and polysyllabic words was introduced and practiced. In this case, each card consisted of one syllable and boys’ task was to put them together in order to create a word. As the syllabication was introduced in the very end of the program, and it was not an easy task for both boys, some of the words were cut in pieces using various shapes.

5.4.5.3. Card games

In order to practice visual perception of individual words and therefore their acquisition, as well as several of the phonemic awareness abilities (chapter 4.2.1.) – e.g. phoneme matching, phoneme segmentation, or rhyming, two card games were mainly used.

Pairs, or in Czech pexeso was played in many variants quite frequently. It was an excellent tool when new lexicon and its phoneme-grapheme correspondences were acquired. The most positive aspects of this game were its usability from the very beginning of the whole program, as well as its simplicity and familiarity to both boys. The second card game were dominos (appendix 7), and it was mainly used within further phases of the program when larger lexicon and its correspondences were acquired, and so various phoneme-matching tasks could be used.

5.4.5.4. Tactile multisensory techniques

Among techniques involved in reading skills development by means of supporting kinesthetic learning style – especially in Garrett’s case (chapter 5.3.1.), belong also those focusing on touching and its sensation. Out of this category, two main teaching approaches were used.

First of them is usage of sand/flour or plasticine for written form fixation of new lexical items. This technique, as recommended e.g. by Zelinková (2003, p. 80), helps in the phase of grapheme-phoneme correspondence acquisition, and within this case-study it was applied mainly in the case of extreme difficulties with certain letter-sound relations. Besides the touch, all other senses are involved supporting the
multisensory principle. Boys did not just feel those individual letters used in monosyllabic words, however they employed their voice, eyes and ears by means of looking at the word they created, reading it, and listening to themselves (or the teacher reading it) at the same time.

The second, more frequently used, technique was writing newly learned lexical items on each others back or into a palm. This activity does not comprise such a broad range of senses involved, however it is also highly recommended and effective technique. The main positive lies in its simplicity and practically no need of material teaching aids. This activity was used with equal frequency in case of both boys in the case study, and their viewpoint on its contribution is commented on, in the chapter 5.4.1..

5.4.5.5. Matching pictures/picture lotto, bingo, tic-tac-toe

This group of techniques and related teaching aids has a very broad range of abilities they develop; however its form is very similar. They are all based on grid of certain extent – usually from 3 x 3 to 5 x 5 squares. They are, as already stated in the title, matching pictures/ picture lotto, bingo and tic-tac-toe.

Matching pictures/ picture lotto activity was used mainly when practicing analysis of individual graphemes contained in a pre-learned lexical set. Certain area for practice was chosen (e.g. silent –e words) and little cards with these words written on them were prepared. Each player also got several simple charts with pictures representing some of the words. All the cards were put into a bag and drawn one by one. Switching players were getting one card at a time, they were supposed to read the word and put it on the corresponding picture. When the word did not match, word-card was put back into the bag and it was another player’s turn. The player who first got all the pictures on one of his cards covered won. For better illustration, example of this game is listed below as appendix 8. As this type of activity could be classified as a game (similarly to pairs or dominos) and both boys really enjoyed any type of competition, they were really highly motivated each time this game was used. It required them to be really focused and concentrated, as well as to employ their reading skills together with vocabulary knowledge.
The second activity, frequently used and belonging into this category is **bingo**. Its main aim was to support recognition of individual phonemes and knowledge of their associated graphemes. Again, pre-learned words from certain area were taken - e.g. digraph and monosyllabic (single vowel) words, digraphs were arranged into a simple chart and words that contain them were dictated. The goal was to recognise and cross out all dictated sounds to create a line.

The last activity described within this group is **tic-tac-toe**. As this game can have many variants, a brief description of the used one follows. A simple grid, that could be used for regular tic-tac-toe was filled in with various – usually problematic words. The game proceeded as normally, however when one player wanted to mark a field, he had to read the word correctly first. When the word was misread, player lost his turn and the other one could play instead. Again as in classical tic-tac-toe line of three, four or five items had to be made to win.

Even though each of these games focused on different stages of the whole teaching-reading process (vocabulary development, phonics processing, phonemic awareness), they were all following the multisensory, using logic rather than rote-memory, active-involvement and also dyslexia-friendly-text principles. When using them, boys were motivated and so there was less space for any distraction or misbehaviour.

5.4.5.6. **Rhymes and chants with movement**

Usage of various rhymes, poems or chants - especially then those connected with some movement activity, are another frequently recommended and highly effective technique used as a supporting element for reading skills development. Those using one-word repetition in a line, simple – monosyllabic word or syllabic rhyme are the most appropriate ones. Many of them are to be found on various internet pages, however in this case-study; rhymes were taken mainly from the Come and play textbook, Angličtina plná her resource-book and others (appendix 9). The aim of their usage is to teach phonemic awareness as the primary stage of reading skills development, to practice English words pronunciation, and also to support the kinesthetic learning style by means of related movement activities. This technique was not used as frequently as some others; however they still hopefully suitably completed the whole program.
Besides these simple rhymes, there is also a specially created chant comprising reading-pronunciation practice of all English sounds and their word-representatives. It is called Thrass picturechart and its authors are A. Davis and D. Ritchie. It consists of the picturechart and recording of the chant. Within this case-study, there was not enough time to use this teaching aid as frequently as it should be, however some of its parts were very helpful and so it should be listed here as a highly effective tool. As the copyright does not allow its re-creating or photo-copying, it is listed in bibliography for further reference only.

5.4.5.7. Work-sheets

Besides all the above listed and analysed games, texts, techniques, strategies, etc., there were also many reading activities prepared in a form of individual work-sheets focusing on development of individual abilities and reading strategies, analysis as well as synthesis. Each boy had his own folder for keeping these work-sheets. In these paragraphs below, some of the most effective ones are listed.

Every time when introducing new phoneme-grapheme correspondence a word-list comprising up to twenty regular lexical items representing the given element was used. Depending on its difficulty, inductive approach was mainly applied to establish the pronunciation rule. After this, the word-list was usually read several times, using various techniques, such as reading in pair, reading by the teacher first - followed by the pupil’s reading, or using different voices and speed. This list was also in some cases – digraphs, silent e, etc. used for activity focusing on certain phoneme presence in the word identification (appendix 10). This identification technique was used also when summarising more elements together.

In order to develop so called compensation strategy, various gap-filling/ cloze activities were used. As this is applicable on all levels – moving form individual letters, to phonemes, syllables and whole words, this type of work-sheet was used nearly in every lesson. By means of using this type of activity, not only phonological processing skills, but also some of the phonemic awareness abilities – such as rhyming, are being developed. Examples of activities for some of these levels, is to be found as appendix 11.
Multiple-choice activities were another frequently used item for developing reading skills in the program. Tasks focusing on phonological processing (chapter 4.2.2.), as well as on simple forms of reading comprehension (chapter 4.2.5.) were worked on by both boys. In this type of activity, only the whole-words level was used, using several variants such as marking out the word that does not fit, completing short sentences by means of using the one fitting word and so on (appendix 12).

When focusing on individual abilities within the phonemic awareness (chapter 4.2.1.), as the basic stage of teaching reading skills, various tasks for practicing phoneme substitution, deletion, matching as well as rhyming were used. As both boys were not used to this type of activity, the first time using this type of task was quite complicated and maybe even a bit stressful for them. Later on, as they became more familiar with it, and their abilities were developing it became less stressful and more enjoyable. Examples of some task belonging into this group are documented in appendix 13.

The last type of work-sheet activity listed in this chapter, are various word-search tasks (appendix 14). For this purpose, words are usually organizes in some kind of grid or cross-word into which individual letters are being inserted. By means of using these activities, blending abilities, as well as vocabulary development are being supported.

All these above listed and described techniques, activities and games were the core of the whole, two-months lasting, program methodology. They were chosen and applied not only according to the ability they develop, but also in agreement with boys’ individual learning styles, their level of English, their momentary needs or mental conditions. Larger sets of various activities were prepared for each lesson, while decision about their usage was made in dependence on the current situation – e.g. when one of them came really tired, did not focus as much as he should or seemed a bit restless and so on.

5.4.6. The last lesson – final reading test

The last lesson took place according to the time plan - on 12th and 13th March. In both cases, it started with a brief review of major sound-symbol relationships from
previous lessons, using boys’ – at this time quite extensive - sets of reading cards, and card games such as pairs and dominos.

Right after this opening phase, **reading test** was taken by both boys. In order to gain valuable and reliable data from the initial and final reading test comparison, identical procedure as with the initial reading test was followed. Boys were both given exactly the same text that was used in the first lesson, they were asked to look briefly on the text and again focus on accuracy above fluency was emphasised. Their reading performance was recorded and a transcription of misread words, including omitted words and long pauses denotations are listed below as appendix 15. This time, both boys’ reading was more fluent as well as – and especially, accurate. Even without looking on the initial reading test results, there were much less mispronounced words, long pauses or omitted words. Even though, this comparison was made - individual misreadings and other mistakes were counted and they are presented also graphically as a part of appendix 15.

These two graphs show a significant decrease of mistakes, pauses as well as not comprehended items in the last part of the test. When looking on Nicholas’s results, the amount of mistakes lowered more than to its half, while long pauses were limited even more extensively. In Garrett’s case, the initial amount of mistakes was extremely high and so, even though the final reading rest result, in this item, is not so great, its limitation – again to more than its half, should be taken as a positive result. Garrett’s pauses lowered as well, and even though it is not such a big difference as in Nicholas’s case, it is a positive change, that could be further worked on.

When focusing not only on the amount of reading mistakes or errors, but also on their scope of grapheme-phoneme correspondences, it shows most of the misread words contain elements that were not taught yet, or irregular pronunciation words. Besides this, both boys made also several mistakes when reading words with elements that were introduced and practiced within the program. It could be caused partly by their nervousness, as well as by the limited time provided. If there was more time given, not only more grapheme-phoneme correspondences could be introduced, but also there would be more time for practice and boys would become more used to some of these relations. This altogether is something that may hopefully happen in the future, even though it can not become a part of this thesis. Time availability is being negotiated with
both boys and their parents and so further development of boys’ reading skills by means of re-educational lessons is still one of the possibilities.

In the last part of this final lesson, a **structured interview** with boys, focusing on their individual perception of the whole program, was also carried out. Its structure and results are analysed in detail in the chapter 5.4.1..

5.4.7. Data interpretation

When interpreting data related to this part, its great level of accuracy must be taken as the initial point. All this data was acquired by means of using various tests, which provide information to be analysed predominantly in a quantitative way. Therefore, answering individual aim-related questions that were set in the beginning should be very clear.

All the data received by means of the VARK test were highly beneficial, and so they did not only help to answer one of my aim-related questions - what is the selected dyslexics’ learning style, however it also determined the whole program – its content, structure, form etc.

On the topic of boys’ initial and final level of reading skills, including its measurable development, all the above stated questions were also answered in a very clear way, and so both partial aims related to these questions were accomplished. Generally, reading skills of both boys developed quite significantly, and so the program’s contribution could be also evaluated as a positive one. Using just the quantitative view, the reading skills development journey, documented by the graphs in appendix 7, seems to be quite extensive, however teaching-learning process is not only about number, and the perception of all involved parties should be also taken into account.

5.5. Final data collection and analysis

In the end of the whole case-study, **four mainly qualitative data-collection instruments** (questionnaires for structured interviews with boys as well with their English teachers, a questionnaire for boys’ parents and a reflective diary) were used, in order to obtain data documenting the development in boys’ reading skills from the
viewpoint of all parties involved in this research. All the questionnaires were either
distributed or used for an interview, filled in, and answers were transcribed into a
computer. Their detailed analysis, including appendix references are to be found in
these four following subchapters.

5.5.1. Structured interview with boys

This data-collection instrument was, as already stated above, used within the
final part of the last lesson. Six questions, aiming primarily on boys’ subjective
perception of the whole program – its positive and negative aspects, various techniques
and tools effectiveness, as well as of their own reading skills development, were
prepared and asked. This tool was chosen for the possibility of supplementary questions
being asked, as well as due to its lower level of formality. Its implementation should
help to answer the sixth aim-related question, and consequently lead to the verification
one of the partial aims. All the answers were noted down and their transcriptions, as
well as all the questions are listed below as appendix 16.

When looking at the first two questions and their answers, a set of very similar
perceptions is to be found. Both boys notice a positive development of their reading
skills; they talk about more frequent praising from their English teacher and a better
understanding the whole language lesson. When asked to express their reading skills
development, by means of using a scale from zero to ten (ten being the most), they both
evaluate their beginning reading skills as three, respectively three and a half, and their
final reading skills as eight, respectively seven and three quarters. It means, there are
not only explicit quantitative data provided by the reading test results (appendix 15),
however also boys themselves perceive their own positive reading skills development,
that may contribute to their further motivation and increase of self-confidence.

Both boys also quite agreed on the third question, when answering it in quite a
neutral way. When asked, whether they would like to continue in the program, they both
replied that probably yes, however it seemed they said so just because of talking directly
to me. Their major reason for not continuing, resulting also from their age, was stated as
having less time for other activities and hobbies.

As moving to the question number four, disagreement in individual answers
starts. In the question about time sufficiency of the whole program and lesson
frequency, Nicholas’s answers were more negative than Garrett’s. Nicholas thinks, the program was long enough – but seems to think if it was shorter it would not matter at all, and the lesson frequency could also be lower. Garret’s answers though, express more positive attitude, saying that having lessons twice a week was the proper amount, and that he would not have any problem to attend it in the future as well. These answers also perfectly reflect on boys’ personalities. As described earlier by their English teachers (appendix 2), and observed during the whole program, Nicholas is more irresponsible and indifferent, so he would do almost anything to get out of any extra activity, while Garret is more open and willing to work on his language skills.

The last two questions were included especially for better reflection on the right choice of techniques and activities according to boys individual learning styles (chapter 3.5.). Boys were asked what activities they did and did not like, as well as what they think helped them most. Nicholas gave a positive evaluation especially to writing on ones back and various card activities/games, while reading itself was marked as the most beneficial item of the whole program – reflecting his multi-modal learning style with focus on reading. Negative evaluation was than given to home assignments, again because of the lack of time for other activities. Garret, on the other side, liked especially when plastic letters, dominos – and other card games, or writing on ones back was used in the lesson. As the most beneficial, he marked techniques related to usage of various word-cards, like his own reading-cards set, dominos, pairs, etc. In this case, learning style preference, this time towards the kinesthetic one, was again confirmed. On the other side, various phonological processing abilities – like blending, deletion or substitution, received a negative evaluation.

5.5.2. Questionnaire for boys’ parents

This final data-collection instrument was used according to the time schedule, in order to obtain qualitative data that reflect the program results, as well as document an outlook to the future, from the point of view of another party involved in this case-study. Together with the questionnaire for structured interview with boys, it should contribute to the effort when answering the sixth aim-related question. Seven questions, focusing mainly on the parents’ perception of the whole program and their possible willingness to continue, were created, given to both boys, filled in by their parents and
analysed in the paragraph below. The questionnaire, including the answers is to be found as appendix 17.

The whole questionnaire opened with a key-question, aiming on the parents’ perception of their child reading skills development, and it was answered quite positively in both cases. A scale having four items was used in this case, following the recommendation provided by Surynek, which states that, “a scale having two to five items is to be absolutely sufficient for a basic orientation about individual’s position within the continuum” (1999, p. 34 – my translation). In order to avoid a possibility of medial - not a really valuable answer, an even amount of possible answers, with two positively oriented, one neutral and one negative bias, was used. This decision could be supported again by Surynek, as he writes:

Scales with odd amount of possible answers evokes the presence of a centre-point. […] That may lead to a cumulation of answers in the middle of the scale. Furthermore, the centre-point is often understood as an indeterminateness, ignorance, position refusal etc. […] Scales with even amount of possibilities also create a pressure on placing the answer on either positively or negatively perceived scale-pole. (1999, p. 34 – my translation)

All the five following questions also provided multiple-choice answers, however this time only three possibilities – yes/no/I can not say, were offered. The last question was used to provide a space for any further comments and suggestions from the parents.

When looking at its results (also appendix 17), a strong similarity between both questionnaires can be seen. Both parents would like to continue in the program, and they both also perceived its content to be focused on the most problematic aspects of their sons’ reading difficulties. They also agreed that there was not enough time provided for the reading development process, and they were jointly not sure about their sons’ willingness to continue. With the sixth question about their opinion on usage of appropriate methods and teaching aids, respecting their sons’ abilities, learning style, personality, etc., a positive and neutral answer was gained.

5.5.3. Structured interview with boy’s English teachers - final

These interviews were both originally scheduled for the last week of the whole case-study program (10. – 14. 3. 2008), however because of some of the teachers’ possible absence within the planned week, as well as possible lack of time for its results
analysis and interpretation, its implementation was shifted a week earlier. Both English teachers were asked two questions, that were identical the last two questions from the initial interview, attempting to be able to answer the seventh aim-related question and so fulfil another partial aim of this research. Their answers were noted down, transcribed into a computer (appendix 18), and compared to those answers obtained in the beginning.

This time, both teachers evaluated boys’ reading skills in a more positive way. In Nicholas’s case, more fluent reading with more focus and less mistakes was being described, while in Garret’s reading, more accuracy as well as fluency was also commented on. Besides reading itself, both teachers’ answers also confirmed the above described and analysed boys’ own perception of their performance in their English language lessons (chapter 5.4.1.). Expressions like, more independent, more active, more energy for comprehension, better overall language impression, or better orientation in the whole language lesson, were used. The simple graph recording teachers’ perception of boy’s level of fluency and accuracy was also filled in; its results are again noted down in appendix 18, and the positive development from this point of view is documented at the same place, by means of combining the initial and final interview results.

5.5.4. Reflective diary

In order to provide a personal insight, and the last – until now not used, point of view on the whole reading skills development process, a reflective diary was kept for the whole time of the program. Its regular usage and following analysis should also contribute when answering the last (eighth) aim-related question, and thereby completing the whole puzzle of partial aims stated in the beginning of this research. As the information recorded in the diary contains many personal items, only its analysis is employed as a part of this thesis.

Both reflective diaries – as being kept of each boy individually, recorded several elements, such as very briefly described content of each lesson, boys’ late comings (or unexcused not coming at all), whether – and how, they did their home-assignment or not, and especially my subjective perceptions of boys’ feelings, emotions, moods, behaviour, work-attitudes, their achievements or failures. As each – not only dyslexic
learner has own and very unique personality, both boys’ data noted down in the diary are analysed also individually.

Garrett’s section of the reflective diary documents my perception of him as an active boy with a strong willingness to learn. Looking into the diary, expression such as: trying to do his best, really focused or confident (used especially in the second part) appear quite a lot. In most of the lessons, Garrett was coming prepared and on time and worked actively. The only bigger problem was his frequent tiredness towards the end of the lesson and sometimes uneven level of focus; however as they both belong to the list of classical weaknesses associated with dyslexia (chapter 3.3.1.), there is no reason to be surprised or even worried. The overall impression when reading the diary confirms the reading skills development documented by all the above used instruments. Especially words used in the last part of the diary, such as enjoyable, happy or confident illustrate that quite convincingly.

On the other side, Nicholas’s diary is not so positive at all. Even though his development of reading skills, as documented above, was also really distinctive, his program-related behaviour and overall approach towards learning was – as could be also seen from his interview analysis (chapter 5.4.1.), rather neutral or even negative. Even though he worked mostly really well, all the enthusiasm and focus are in his part of the diary substituted by comment on coming late, not coming at all, not having home-assignment or at least just the folder with his work. Besides this, similar (a bit lower level) difficulties - with concentration, lesson to lesson or activity to activity changes in mood, activity or focus, were noted down as in Garrett’s case. Nicholas’s confidence was higher than Garrett’s from the beginning; however its steady grow can be seen in this case as well.

5.5.5. Data interpretation

This third part of my research provided an extensive list of qualitative data that were already analysed, however its overall results still need to be interpreted and aim-related question answered.

When asking whether there was a positive perception of the program effectiveness on the side of the boys, as well as their parents – in both cases an affirmative answer has to be used. Even though boys’ responses were a bit more
negative, all these answers confirmed the positive development documented by means of the reading test data comparison. The most important outcome from these data-collection instruments is that both boys evaluated their reading skills development (using the scale) as a really distinctive, and that their parents used such a positive evaluation despite the distance they had to observe it. Both interviews provided a highly valuable set of data that brings not only a reflection of the already completed program, however it may be also used as a great starting point for any further activity in the area of reading skills development.

The final interview with boys’ English teachers also brought a lot of positive information. The reading skills development was confirmed also from this view-point, documenting the program’s positive influence - not only on reading tasks used within its run, but also – and primarily, within regular English lessons; not just during reading activities, however in the whole EFL educational process. Also in this case the aim-related question was answered positively.

The last, but not least qualitative data-collection instrument, its usage needs to be interpreted, is the reflective diary. As a subjective tool, in addition used by myself, it is very complicated task to evaluate its effectiveness, necessary when trying to answer the last of all the aim-related questions. It seems nearly impossible to employ just the reflexive diary data, when having all the other information. Attempting to use the diary only, it probably does not show so much development – as boys’ level of concentration changed a lot and also individual items that were introduced within individual lessons were more and more complex; as it reflects on boys’ growing general language abilities and especially their self-confidence. That of course needs to be taken as a highly beneficial component making the basis, necessary for any further development of dyslexic learners, even more solid.
6. Conclusion

*Dyslexia is not a disease to have and to be cured of, but a way of thinking and learning.*

*Often it is a gifted mind waiting to be found and taught.*

(Bright Solutions for Dyslexia)

As already stated in the beginning of this work, the aim of every teacher should be making the reading-acquisition process of his or her dyslexic learners as natural and non-violent as possible. There are many literary sources providing a theoretical, as well as a practical support in the area of mother-tongue reading skills development; however the situation changes when focusing on this process within the EFL environment. Therefore, this paper’s intention was to present a list of techniques and strategies beneficial for dyslexic learners and their reading-skills development in English.

To achieve that, the primary step, consisting of collecting, categorizing and presenting, all the relevant theoretical data, had to be taken. All the information, presented in the theoretical part, was selected according to its relevance to the general understanding of the topic and especially to the aim of the research. It was introduced within three major clusters, while its sequencing resulted from my perception about beginning with the most basic and generally known facts, moving towards those more specific and practice oriented ones.

Following this scheme, specific learning difficulties – perceived as a superordinate category of dyslexia, dysgraphia, dysorthographia and others – were defined and analyzed at first, providing a general overview on these mutually interrelated disorders. It is not an unusual situation, when more than just one of these difficulties is being diagnosed, and therefore presenting them jointly in the beginning – even though this work deals primarily with dyslexia – seems as an absolutely legitimate step. Besides the possible influence of another specific learning difficulty, there are also many further dyslexia-related elements having a major impact on the learner.

Therefore, all these items were gathered, and the entire chapter focused on their analysis. Again - proceeding from those general towards more and more specific and practical ones – dyslexic learners’ weaknesses, strengths or social and emotional problems were introduced, followed by the theory on learning styles or types and subtypes of dyslexia. According to the original intention, this chapter incorporated all the
primary information, necessary for any dyslexia-related teaching-learning process, and therefore constructed a basis for the further text, focusing purely on the reading-skills development.

As still dealing with the English language reading-skills development, English-speaking countries theoretical findings in this field were introduced, to be further segregated into those applicable within the EFL environment. Following individual stages of the reading-skills development, the choice of the most effective teaching methods, or the capitalization of various teaching reading-skill principles - all analyzed in this part – could then become the back-bone for the re-educational program implemented within the research.

In this final part of my thesis, a case-study was implemented, in order to finally verify the effectiveness of the proposed re-educational program, and thereby fulfill the primary aim of this work. To ensure the reliability of all the collected data, a broad range of viewpoints – comprising perceptions of learners themselves, their English teachers, their parents and mine – was employed. Stemming from all the theory - introduced in previous chapters - as well as respecting individualities of both selected learners with dyslexia, were the two key-principles, to be followed within this stage. In order to be able to validate its results, eight aim-related questions were clearly formulated at first, to be answered in the end of each – of the three - completed research phases.

Although this task was successfully completed, all the intended information was found, all aim-related questions were answered and a factual positive completion of this research could be declared, there still remained the question about the program effectiveness to be answered. As an every teacher’s aim should be to achieve as positive results of his or her learners as possible, this program – functioning as an instrument for reaching this aim myself – could not be qualified as effective, if it would not have a positive influence on the reading-skills level of selected learners with dyslexia. Even though this was a high-risk goal – having an enormously limited time to make any change, as well as no previous experience working with dyslexic learners - it seems to be achieved. Proved by my own subjective perception, as well as by perception of both learners’ parents and teachers, and especially by the comparison of initial and final
reading-test results, the positive development in both selected dyslexic learners reading skills was reached.

To sum up, this thesis provided a theory-based research, focusing on reading skills development of dyslexic learners that should be achieved by means of applying various techniques that respect learners’ very specific individualities. Even though, every such a re-educational program has to be different – again stemming from individual learner’s needs - this work may hopefully help to anyone who would like to attempt to make a change in the development of reading skills in English in their primary school learners with dyslexia.
7. Resumé

Dyslexie, jako nejčastěji diagnostikovaná specifická porucha učení, je ve spojitosti s rozvojem čtecích dovedností v mateřském jazyce u žáků na základní škole velice často diskutovanou otázkou v rámci celého výchovně-vzdělávacího procesu. S ohledem na mnoholetý výzkum a zejména pak na do detailu rozpracované diagnostické i reeducační postupy v této oblasti se ovšem může analýza této problematyky jevit jako nezajímavá, či dokonce zbytečná. Posuneme-li však náš zájem od rozvoje čtecích dovedností v mateřském jazyce do roviny výuky cizího jazyka – v našem případě anglického – získává tato problematika výrazně na atraktivnosti. Dostáváme se totiž na relativně tenký led – tedy do roviny, jejíž prvky zatím nebyly, s ohledem na relativně krátký časový úsek masové výuky anglického jazyka na našich základních školách, příliš podrobně analyzovány, publikovány a zejména pak aplikovány do školní praxe. S ohledem na tuto skutečnost se tato práce zaměřuje právě na tyto otázky – tedy na problematiku rozvoje čtecích dovedností v anglickém jazyce na základní škole u žáků s dyslexií.

Jejím hlavním cílem je tedy navrhnout soubor technik, které budou následně ověřeny v praxi a jejichž efektivnost bude doložena z několika na sobě nezávislých zdrojů. K vytvoření takového souboru je ovšem v prvé řadě nezbytné shromáždit co největší objem teoretických dat, přičemž ta nejdůležitější z nich jsou popsána v úvodních kapitolách této práce.

Vzhledem k úzké propojenosti mezi českým a anglickým systémem rozvoje čtecích dovedností, která je v této oblasti – tedy v případě angličtiny jako cizího jazyka – nezbytná, je problematika jejich vzájemného terminologického nesouladu nastíněna ihned v úvodu celé práce. Z dostupných, a v této části také podrobně analyzovaných zdrojů, se terminologie používaná v rámci českého výchovně-vzdělávacího procesu jeví jako lépe strukturovaná a tedy i více přehledná, a proto je, i navzdory jazykové oblasti celé této práce, preferována před anglickou.

Po vymezení tohoto nesouladu, následují již kapitoly poskytující nejzákladnější informace týkající se specifických poruch učení, samotné dyslexie i rozvoje čtecích dovedností v anglicky mluvícím prostředí. Jelikož se mi jako nejlogičtější jeví postup od nejvšeobecnějších k více specifickým a pro výzkum nezbytným tématům, je tento
systém aplikován i na řazení jednotlivých kapitol. Z tohoto důvodu je tedy celá problematika rozvoje čtecích dovedností v anglickém jazyce na základní škole u žáků s dyslexií uvedena rozbozem jednotlivých specifických poruch učení.

Vzhledem k jejich úzké provázanosti jsou v této kapitole nejprve specifické poruchy učení charakterizovány jako celek a až v následujících pěti podkapitolách jsou analyzovány jednotlivě. U každé z nich je uvedena jejich krátká charakteristika včetně nejčastěji se vyskytujících obtíží a některé ze všeobecně doporučovaných postupů pro jejich reedukaci. Přestože již v této části je největší prostor věnován právě dyslexii, největší pozornosti se této poruše učení dostává v následující kapitole, která se na ni zcela zaměřuje.

Zde je dyslexie popsána ze všech, pro tuto práci, relevantních, úhlů pohledu. Na začátku celé kapitoly jsou opět nejprve diskutována nejvšeobecnější témata a až v závěru dochází na nejvíce odborná. V samém úvodu je dyslexie definována jak z morfologického tak věcného hlediska, což je v následující podkapitole doplněno o další zásadní hledisko, a to historické.

I přestože se jako lidé jeden od druhého v mnohém lišíme, u žáků s poruchou osvojování čtenářských dovedností (tedy dyslexií) existuje značné množství charakteristik, týkajících se jak čtení, tak běžného života, které jsou pro ně sjednocujícím prvkem. I z tohoto důvodu jsou ty nejzákladnější z nich uvedeny v následující podkapitole, kde jsou také rozčleněny na pozitivní a negativní, tedy na silné a slabé stránky dyslektiků. Mimo nich se jako další sjednocující prvek lidí s dyslexií často vyskytují sociální či emocionální problémy. Ty zpravidla přesahují rámec samotné školy a narůstají do rozměrů přesahujících samotnou dyslexii. Proto jsou i tyto, tzv. druhotné symptomy dyslexie, uvedeny v následující z podkapitol.

Pro porozumění a následně citlivé respektování individuality jednotlivých žáků s dyslexií v rámci výchovně-vzdělávacího procesu jsou ovšem nebytné i mnohé další vlivy. Jedním z nich je i otázka učebních stylů, kterou lze hodnotit pomocí několika, v této kapitole nastíněných, systémů, a která má zásadní vliv na proces rozvoje čtecích dovedností, nejen v rámci jednotlivých reedukačních hodin, ale i při výuce v klasické heterogenní třídě. Na tuto podkapitolu pak přímo navazují otázky týkající se odlišností jak ve stavbě, tak pak zejména ve funkci mozku, jeho jednotlivých hemisfér a dalších částí.
V první z těchto dvou podkapitol je diskutována zejména otázka laterality – tedy přednostního užívání jednoho z párových orgánů – právě v návaznosti na, pro dyslektiky specifickou, funkci jednotlivých mozkových hemisfér. Ve druhé kapitole, jsou pak shrnuty a popsány jednotlivé prvky, které dyslexii způsobují. S ohledem na odbornou literaturu, která tyto prvky zpravidla rozčleňuje do tří základních rovin, tato práce tento systém respektuje a poskytuje analýzu roviny biologicko-medicínské, kognitivní i behaviorální. Zejména pak v návaznosti na posledně jmenovanou, zaměřuje se tato část mé práce i na problematiku jednotlivých druhů paměti a odlišnosti v jejich fungování u dyslektické a nedyslektické populace.

Dyslexie ovšem není jen jedna. Vzhledem k jejich poměrně široké škále, a zejména pak i přístupů k jejich členění, jsou všechny tyto zásadní typy poruch osvojování čtenářských dovedností uvedeny a charakterizovány v závěru této kapitoly. Umístění této podkapitoly bylo současně zvoleno i s ohledem na velice úzkou provázanost s otázkami laterality a etiologie dyslexie, které byly pro svou odbornost zařazeny také až v druhé části této kapitoly. Stejně jako odborná literatura, prostudovaná pro účely této práce, rozlišuje i tato podkapitola tři základní systémy kategorizace jednotlivých typů dyslexie a obtíží s ní spojených.

V poslední, tedy čtvrté kapitole, předcházející samotný výzkum, se sjednocujícím prvkem stává problematica samotného procesu rozvoje čtecích dovedností u žáků s dyslexií. Jsou zde popsány a analyzovány jednotlivé prvky, které mají přímý vliv na volbu vhodných technik rozvoje čtecích dovedností, v rámci implementace celého reeducačního programu. Jedná pak zejména o klasifikaci základních úrovní rozvoje čtecích dovedností, které je nezbytné absolvovat v rámci tohoto procesu, o popisu nejrůznějších metod užívaných zejména v anglicky mluvícím prostředí k rozvoji čtení, a také o nastínilní všeobecných principů, které je třeba respektovat k zajištění co nejefektivnějšího průběhu i výsledků samotné reedukace.

S ohledem na existenci několika, vzájemně se prolínajících a do rozdílné hloubky propracovaných systémů klasifikace úrovní rozvoje čtecích dovedností, jsou této otázce věnovány hned dvě první podkapitoly. První z nich pracuje se dvěma - základními, teoreticky zaměřenými třístupňovými – koncepty, jejichž autory jsou Uta Frith a L. C. Ehri, zatímco druhá již tento proces rozpracovává do systému pětístupňového. Dá se říci, že tato druhá klasifikace staví na základě první, a jelikož je i
podrobnější a praktičtější, je právě ona primárně využívaná následně v průběhu celého výzkumu.

Problematica jednotlivých výukových metod se, stejně jako i ostatní části v rámci této kapitoly, vztahuje k rozvoji čtecích dovedností v anglicky mluvícím prostředí. Jelikož se tato práce se zaměřuje na angličtinu jako cizí jazyk a pouze část z nich může být efektivně využita, je zde kladen větší důraz pouze na některé z nich, zatímco jiné jsou do značné míry potlačeny. Za přispění veškerých dostupných a výše uvedených informací o jednotlivých metodách je v závěru této podkapitoly položena a následně analyzována nejdůležitější otázka - která z výukových metod je nejvhodnější právě pro žáky s dyslexií.

Všeobecné principy, které je třeba respektovat v rámci celého reedukačního procesu, s důrazem jezmena na, pro dyslektiky vhodnou, vizuální podobu textu, jsou popsány na úplném závěru této kapitoly. Opět je zde použit koncept z anglicky mluvícího prostředí, který v tomto případě ovšem nevyžaduje v podstatě žádné úpravy. Jsou zde stručně charakterizovány základní přínosy jednotlivých principů, na jejichž aplikaci v rámci samotného výzkumu je následně kladen velký důraz.

Poslední, a současně nejrozsáhlejší kapitola celé práce se, jak již předchozí text naznačuje, soustřeďuje na samotný výzkum ve formě případové studie. Cílem této části je využít veškeré dříve nashromážděné a výše popsané informace a na jejich základě vytvořit soubor reedukačních technik, jejichž efektivita bude následně ověřena v praxi. V úvodu této kapitoly jsou nejprve popsána veškerá relevantní data týkající se jednotlivých zkoumaných žáků ve vztahu k u nich diagnostikované poruše osvojování čtenářských dovedností, následována souborem základních informací vycházejících z úvodní fáze přípravy samotného výzkumu.

Samotný výzkum je zde rozdělen do tří základních fází – počáteční sběr dat, samotný reedukační program a sběr dat po jeho ukončení. První fáze má za cíl shromáždění informací, ze kterých bude jednak vycházet obsah navrženého programu, a současně jejichž porovnání s daty získanými v závěru potvrdí či vyvrátí jeho efektivitu. Druhá, nejrozsáhlejší fáze se pak týká samotného programu a k němu se vztahující metodologie. Jednotlivé podkapitoly jsou zde řazeny chronologicky, od úvodní hodiny, popisu nastavení jednotlivých hodin, jejich struktury a obsahu, přes charakteristiku jednotlivých reedukačních technik, až k úplnému zakončení programu. V závěrečné,
třetí fázi jsou shromážděna data, která dokumentují situaci v poslední etapě a po ukončení celého reeducačního programu. V případě dotazníku pro učitele angličtiny zkoumaných žáků a testu čtecích dovedností jsou tato závěrečná data porovnána s daty získanými v samém úvodu; při vyhodnocení ostatních, v této fází použitých, nástrojů sběru dat je konstatována pouze subjektivní percepce dosaženého výsledku. K vyjádření těchto dat, získaných od všech - v tomto procesu zúčastněných - stran, jsou použity jak kvantitativní tak i kvalitativní postupy – čímž je podpořena jejich platnost.

Na závěr nezbývá než konstatovat, že bylo dosaženo pozitivního výsledku v rozvoji čtecích dovedností zkoumaných žáků, a že tedy navržený postup, včetně souboru jednotlivých technik, respektoval nejen teoretické principy, ale i individuální vlastnosti jednotlivých žáků. Zejména v rámci výzkumu bylo následně získáno a ověřeno velké množství dat, pro jehož plnou prezentaci není v této práci dostatečný prostor. I přesto ale věřím, že ty nejzásadnější prvky celé problematiky, které ve formě reeducačního programu podpořily pozitivní rozvoj čtecích dovedností u zkoumaných žáků, tato práce obsahuje, a že snad v budoucnu přispějí k podobnému posunu v úrovni čtecích dovedností i u dalších žáků s dyslexií.
8. Bibliography


9. Appendix

List of appendices:

1. Questionnaire for English teachers of learners with dyslexia
2. Questionnaire for structured interview with boys’ English teachers – initial
3. Learning styles – VARK test
4. Initial reading test
5. Reading cards and mind-maps
6. Plastic letters
7. Dominos set
8. Matching pictures/ picture lotto
9. Rhymes and chants with movement
10. Phoneme identification activities
11. Gap-filling/ cloze activities
12. Multiple-choice activities
13. Phoneme deletion, matching, substitution and rhyming
14. Word-search activities
15. Final reading test
16. Questionnaire for structured interview with boys
17. Questionnaire for boys’ parents
18. Questionnaire for structured interview with boys’ English teachers – final
Appendix 1: Questionnaire for English teachers

1. How many dyslexic learners do you teach English in individual classes?

<table>
<thead>
<tr>
<th>Class:</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of dyslexic learners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Do you adapt/adjust reading activities/tests for the whole class, when some dyslexic learners are present?  

YES  NO

3. What techniques/strategies do you use to achieve that?

4. Do you adapt/adjust teaching-learning process elements related to reading, towards the dyslexic learner him/herself?  

YES  NO

5. If yes, what do you do?

<table>
<thead>
<tr>
<th>Un-timed (reading) tests</th>
<th>YES/NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra time to complete a reading task</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Evaluating just the completed part</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Multiple-choice questions, instead of open-ended ones</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Accepting phonological word transcription</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Silent reading only</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Reduced home-word load</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Oral testing instead of written one</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Different approaches in writing vocabularies – preparing copies, lowering vocabulary loads</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Vocabulary organization in various ways – diagrams, mind-maps,…</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Vocabulary chunks according to certain topic, similar phonetics,…</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Help with taking notes (copying more materials)</td>
<td>YES/NO</td>
</tr>
<tr>
<td>Others: ……………………………………………………………………</td>
<td>YES/NO</td>
</tr>
</tbody>
</table>

(Bright Solutions for Dyslexia, 1998, d, IDA fact sheets, Krupska, 1995, p. 88-91)
6. Have you ever asked (do you know), what learning strategies fit your dyslexic learners the best/ your dyslexic learners use?  

YES  NO

7. If yes, what are they?

THANK YOU FOR YOUR TIME 😊

Question 5 answers:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un-timed (reading) tests</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Extra time to complete a reading task</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Evaluating just the completed part</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Multiple-choice questions, instead of open-ended ones</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Accepting phonological word transcription</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>Reduced home-word load</td>
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<td>3</td>
</tr>
<tr>
<td>Oral testing instead of written one</td>
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<td>0</td>
</tr>
<tr>
<td>Different approaches in writing vocabularies – preparing copies, lowering vocabulary loads</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Vocabulary organization in various ways – diagrams, mind-maps,…</td>
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<td>4</td>
</tr>
<tr>
<td>Vocabulary chunks according to certain topic, similar phonetics,…</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Help with taking notes (copying more materials)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Others: ................................................................</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Appendix 2: Questionnaire for initial interviews with boys’ English teachers

1. If you can use three adjectives characterizing boy’s personality, what would that be?
   N: indifferent – bored, irresponsible, but also sensitive
   G: sensitive, communicative, responsible, friendly

2. How would you describe his behavior in the lesson?
   
   ACTIVE x PASSIVE       POSITIVE x NEGATIVE

   Others:
   N: both: active and passive – changes from day to day, from lesson to lesson + more negative that positive
   G: more active and positive, however often also not really focused/ distracted

3. How does he prepare for lessons? How does he learn new vocabulary, writes home assignments, …?
   N: not much – forgets a lot of homework, learning vocabulary is OK – but limited loads must be given
   G: is accurate – homework is no problem, in vocabulary – has difficulties with spelling and word-transcription

4. What do you think (know) is his preferred learning style? (visual, auditory, read/write, kinesthetic)
   N: do not know
   G: probably kinesthetic!

5. How would you (using 3 adjectives) describe his reading?
   N: quite fluent, makes less mistakes when focused on the task (does not happen so often)
   G: slow!, many mistakes (more in the end of reading activity/lesson – as he becomes more tired), must use too much energy

6. Using a simple graph focusing on reading accuracy and fluency, where would you place his reading abilities?

   ![Graph](image-url)
Appendix 3: The VARK Questionnaire – The Younger Version

1. I like websites that have:
   a. things I can click on and do.
   b. audio channels for music, chat and discussion.
   c. interesting information and articles in print.
   d. interesting design and visual effects.

2. You are not sure whether a word should be spelled ‘dependent’ or ‘dependant’. I would:
   a. see the words in my mind and choose by how they look.
   b. hear them in my mind or out loud.
   c. find them in the dictionary.
   d. write both words on paper and choose one.

3. You want to plan a surprise party for a friend. I would:
   a. invite friends and just let it happen.
   b. imagine the party happening.
   c. make lists of what to do and what to buy for the party.
   d. talk about it on the phone or text others.

4. You are going to make something special for your family. I would:
   a. make something I have made before.
   b. talk it over with my friends.
   c. look for ideas and plans in books and magazines.
   d. find written instructions to make it.

5. You have been selected as a tutor or a leader for a holiday program. This is interesting for your friends. I would:
   a. describe the activities I will be doing in the program.
   b. show them the map of where it will be held and photos about it.
   c. start practicing the activities I will be doing in the program.
   d. show them the list of activities in the program.

6. You are about to buy a new digital camera or mobile phone. Other than price, what would most influence your decision?
   a. trying it.
   b. reading the details about its features.
   c. it is the latest design and looks good.
   d. the salesperson telling me about it.

7. Remember when you learned how to play a new computer or board game. I learned best by:
   a. watching others do it first.
   b. listening to somebody explaining it and asking questions.
   c. clues from the diagrams in the instructions.
   d. reading the instructions.

8. After reading a play you need to do a project. Would you prefer to:
a. write about the play.
b. act out a scene from the play.
c. draw or sketch something that happened in the play.
d. read a speech from the play.

9. You are about to hook up your parent’s new computer. I would:
a. read the instructions that came with it.
b. phone, text or email a friend and ask how to do it.
c. unpack the box and start putting the pieces together.
d. follow the diagrams that show how it is done.

10. You need to give directions to go to a house nearby. I would:
a. walk with them.
b. draw a map on a piece of paper or get a map online.
c. write down the directions as a list.
d. tell them the directions.

11. You have a problem with your knee. Would you prefer that the doctor:
a. showed you a diagram of what was wrong.
b. gave you an article or brochure that explained knee injuries.
c. described to you what was wrong.
d. demonstrated what was wrong using a model of a knee.

12. A new movie has arrived in town. What would most influence your decision to go (or not go)?
a. you hear friends talking about it.
b. you read what others say about it online or in a magazine.
c. you see a preview of it.
d. it is similar to others you have liked.

13. Do you prefer a teacher who likes to use:
a. demonstrations, models or practical sessions.
b. class discussions, online discussion, online chat and guest speakers.
c. a textbook and plenty of handouts.
d. an overview diagram, charts, labeled diagrams and maps.

14. You are learning to take photos with your new digital camera or mobile phone. I would like to have:
a. examples of good and poor photos and how to improve them.
b. clear written instructions with lists and bullet points.
c. a chance to ask questions and talk about the camera’s features.
d. diagrams showing the camera and how to use it.

15. You want some feedback about an event, competition or test. I would like to have feedback:
a. that used examples of what I have done.
b. from somebody who discussed it with me.
c. that used a written description or table of my results.
d. that used graphs showing what I achieved.

16. **You have to present your ideas to your class. I would:**
   a. make diagrams or get graphs to help explain my ideas.
   b. write a few key words and practice what to say again and again.
   c. write out my speech and learn it by reading it again and again.
   d. gather examples and stories to make it real and practical.

(VARK – a guide to learning styles)

**VARK test results:**

<table>
<thead>
<tr>
<th>Nicholas:</th>
<th>Garrett:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question</strong></td>
<td><strong>Answers</strong></td>
</tr>
<tr>
<td>2.</td>
<td>C</td>
</tr>
<tr>
<td>3.</td>
<td>C</td>
</tr>
<tr>
<td>5.</td>
<td>C</td>
</tr>
<tr>
<td>10.</td>
<td>A</td>
</tr>
<tr>
<td>15.</td>
<td>A</td>
</tr>
</tbody>
</table>

**Nicholas - VARK results**

- Visual: 5; 24%
- Auditory: 6; 28%
- Read/write: 5; 24%
- Kinesthetic: 5; 24%

**Garrett - VARK results**

- Visual: 9; 45%
- Auditory: 2; 10%
- Read/write: 4; 20%
- Kinesthetic: 5; 25%
Appendix 4: Initial reading test

A frog or a dog? — Yes, a goat. Good.

What is in the pond, a frog or a dog? — No, that is a duck.

And what is in the boat, a goat? — Yes, a goat. Good!

And what is on the grass? — A little chick and a pig, a frog and a dog.

Is that Rex? — Oh, yes.

And where is the cow? — On the bike? Great!

That cat sat on the hat

Look at my new doll, Ann. Her name is Mary. She is a nice doll.

I got her from Mummy for my birthday. We will dress Mary now.

Put on her dress, Ann, please. No, not jeans.

Here are her shoes and socks. Give me her hat, Jane.

Oh, where is it?

Pussy, you bad cat! You sat on Mary's hat.

She can't go to the party with Teddy in that hat now.

Look how smart Teddy is in Mike's things.
<table>
<thead>
<tr>
<th>G</th>
<th>fluː æ</th>
<th>OK</th>
<th>[sevn spidən]</th>
<th>OK</th>
<th>[dolﬁn phonər]</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>flowr</td>
<td>OK</td>
<td>six spiders</td>
<td>OK</td>
<td>dolphin on a phone</td>
<td>OK</td>
</tr>
<tr>
<td>blue flower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>OK</th>
<th>[light rain]</th>
<th>OK</th>
<th>[cage]</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>pink desk</td>
<td>[likd rain]</td>
<td>light rain</td>
<td>green cage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(\(X = \) omitted word, // = long pause)
Appendix 5: Reading-cards and mind-maps

Appendix 6: Plastic letters
Appendix 7: Dominos set

- witch
- bee
- tree
- wheel
- pig
- spoon
- jam
- math
- frog
- food
- three
- moon

Appendix 8: Matching pictures/ picture lotto

- kite
- bike
- nose
- cube
- cake
- 5
Appendix 9: Rhymes and chants with movement

Miss Mary Mack, Mack, Mack,
All dressed in black, black, black,
With silver buttons, buttons, buttons,
All down her back, back, back,
She asked her mother, mother, mother,
For fifty cents, cents, cents,
To see the elephant, elephant, elephant,
Jump over the fence, fence, fence,
He jumped so high, high, high,
He reached the sky, sky, sky,
And he never came back, back, back,
Till the fourth of July, 'ly, 'ly.

(Hanšpachová, 2005, p. 39)

All the little bunnies hop, hop, hop,
All the little bunnies stop, stop, stop,
Sit around a circle, sit inside the nest,
All the little bunnies rest, rest, rest.

(Hanšpachová, 2005, p. 39)

Miss Mary Mack, Mack, Mack,
All dressed in black, black, black,
With silver buttons, buttons, buttons,
All down her back, back, back,
She asked her mother, mother, mother,
For fifty cents, cents, cents,
To see the elephant, elephant, elephant,
Jump over the fence, fence, fence,
He jumped so high, high, high,
He reached the sky, sky, sky,
And he never came back, back, back,
Till the fourth of July, 'ly, 'ly.

(Antunez, 2002)

Here is a box,
Put on the lid.
Your daddy hid
Something in it.
Try to find out
And let it come out.

(Urbanová, 1990, p. 58)

Appendix 10: Phoneme identification activities

Circle the letter/letters that create the first phoneme:

- ship
- dolphin
- cherry
- wheel
- foot
- watch
- bee
- three
- sheep
- duck
Appendix 11: Gap-filling/ cloze activities

Fill in the correct letter and read the word:

- p……n p……n p……n
- b……n b……d b……n
- n……t n……t n……st

Fill in the correct digraph and read the word:

- m - - n p - - l sixt - - n
- OO t - - th
- w - - k sp - - n
- gr - - n ch - - p EE
- g - - d str - - t
Fill in the missing (rhyming) word and read the text:

I am a fish.
I live in a ....................

I am a cat.
I live in a ....................

I am a fox.
I live in a ....................

I am a bee.
I live in a ....................

(Hurtová, 2006, p. 51)
Appendix 12: Multiple-choice activities

Odd one out:

1. lexically:

<table>
<thead>
<tr>
<th>sheep</th>
<th>fish</th>
<th>moth</th>
<th>dish</th>
</tr>
</thead>
<tbody>
<tr>
<td>pink</td>
<td>feet</td>
<td>green</td>
<td>white</td>
</tr>
<tr>
<td>shark</td>
<td>hat</td>
<td>sock</td>
<td>shirt</td>
</tr>
</tbody>
</table>

2. phonetically:

<table>
<thead>
<tr>
<th>photo</th>
<th>cloth</th>
<th>graph</th>
<th>dolphin</th>
</tr>
</thead>
<tbody>
<tr>
<td>jam</td>
<td>page</td>
<td>jump</td>
<td>flag</td>
</tr>
<tr>
<td>chip</td>
<td>school</td>
<td>much</td>
<td>lunch</td>
</tr>
</tbody>
</table>

Choose the correct word to complete the sentence:

- The cat jumped on a **tree** bee free
- We make a **hate** cake lake
- I ride a **kite** plane bike
Appendix 13: Phoneme deletion, matching, substitution and rhyming

Count:

switch - s = ……………………………
been - n = ……………………………
pane - e = ……………………………
fine - e = ……………………………
note - e = ……………………………

Match all the words with the same vowel sound:

smile    rose    cone    like    bake
hole     line     tale    plane    broke
hate     made    crime    home    drive

Substitute the red letter with letters in brackets:

net (o, u)    ……………………    ……………………    ……………………    ……………………
bin (f, p, sk, th)    ……………………    ……………………    ……………………    ……………………
ca (n, p, b, sh)    ……………………    ……………………    ……………………    ……………………

Find the rhyming words and colour them:

but                      pump                      jump
                          bull                      bun
must                     cut                      hut
                          fun                      full
pull                      dust                      rust
                          bump                      run
Appendix 14: Word-search activities

Find the words - match them with the picture and read:

<table>
<thead>
<tr>
<th>F</th>
<th>O</th>
<th>R</th>
<th>K</th>
<th>F</th>
<th>A</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>C</td>
<td>R</td>
<td>W</td>
<td>R</td>
<td>I</td>
<td>B</td>
</tr>
<tr>
<td>S</td>
<td>X</td>
<td>Q</td>
<td>L</td>
<td>O</td>
<td>C</td>
<td>K</td>
</tr>
<tr>
<td>T</td>
<td>M</td>
<td>D</td>
<td>O</td>
<td>G</td>
<td>J</td>
<td>N</td>
</tr>
<tr>
<td>O</td>
<td>M</td>
<td>T</td>
<td>C</td>
<td>R</td>
<td>O</td>
<td>S</td>
</tr>
<tr>
<td>P</td>
<td>O</td>
<td>T</td>
<td>V</td>
<td>L</td>
<td>P</td>
<td>O</td>
</tr>
<tr>
<td>Y</td>
<td>R</td>
<td>O</td>
<td>V</td>
<td>I</td>
<td>W</td>
<td>C</td>
</tr>
<tr>
<td>M</td>
<td>O</td>
<td>P</td>
<td>E</td>
<td>Z</td>
<td>U</td>
<td>K</td>
</tr>
</tbody>
</table>
### Appendix 15: Final reading test

#### A frog or a dog?

<table>
<thead>
<tr>
<th>G</th>
<th>[wɔt] //</th>
<th>N</th>
<th>[wɔt] // thank</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is in the pond, a frog or a dog? - No, that is a duck.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[wɔt be:t //ge:t ge:t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>And what is in the boat, a goat? - Yes, a goat. Good!</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[Χθik]</th>
</tr>
</thead>
<tbody>
<tr>
<td>And what is in the grass? - A little chick and a pig, a frog and a dog.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[och]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is that Rex? - Oh, yes.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[Χθik]</th>
</tr>
</thead>
<tbody>
<tr>
<td>And what is on the grass? - A little chick and a pig, a frog and a dog.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[kou gre:t]</th>
</tr>
</thead>
<tbody>
<tr>
<td>And where is the cow? - On the bike? Great!</td>
<td></td>
</tr>
</tbody>
</table>

#### That cat sat on the hat

<table>
<thead>
<tr>
<th>G</th>
<th>[nau // // //]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look at my new doll, Ann. Her name is Mary. She is a nice doll.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[mi: bà:0dai //]</th>
</tr>
</thead>
<tbody>
<tr>
<td>I got her from Mummy for my birthday. We will dress Mary now.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[plejs // džejns – after self-correction OK]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put on her dress, Ann, please. No, not jeans.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[ʃəus]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Here are her shoes and socks. Give me her hat, Jane.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[och och]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oh, where is it?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[pasi]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pussy, you bad cat! You sat on Mary's hat.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[ΚΑΝΤ go X]</th>
</tr>
</thead>
<tbody>
<tr>
<td>She can't go to the party with Teddy in that hat now.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
<th>[hou maikes mikis]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look how smart Teddy is in Mike's things.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>flowr</td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
</tr>
<tr>
<td>G</td>
<td>[</td>
</tr>
<tr>
<td>N</td>
<td>[</td>
</tr>
<tr>
<td></td>
<td>OK</td>
</tr>
</tbody>
</table>

(X = omitted word, // = long pause)

### Nicholas - reading tests' results

<table>
<thead>
<tr>
<th></th>
<th>Misreadings</th>
<th>Long pauses</th>
<th>Comprehension mistakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>23</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Final</td>
<td>20</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

### Garrett - reading tests' results

<table>
<thead>
<tr>
<th></th>
<th>Misreadings</th>
<th>Long pauses</th>
<th>Comprehension mistakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>52</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Final</td>
<td>16</td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix 16: Questionnaire for structured interview with boys

1. **Do you think there was achieved any shift in your reading abilities in English?**
   
   **N:** reading became better – English teacher didn’t praise me so much before + understand better what is going on
   
   **G:** it became better – I know more and English teacher praises me more now + better cope with the pace of work – more often called by the teacher to answer question, read,….

2. **How do you feel now in your regular English lessons? Use scale from 1 to 10 to grade your reading skills in the beginning and in the end.**

   **N:** feel more confident – feels his grade is going to change from 2 to 1 in the end of school year – 3,5 in the beginning + 7,75 in the end!
   
   **G:** a bit better – I especially more understand and can cope with the pace of work – 3 in the beginning + 8 in the end!

3. **If there would be another chance (more time) would you like to continue in the program?**

   **N:** it does not matter/ do not care so much – if not I would have more time for other activities – main reason for not so strong willingness to continue
   
   **G:** probably yes (but not in summer – nice weather) – would not have enough time for other activities

4. **Do you think appropriate time (length of program, frequency of lessons) was given?**

   **N:** the program length was just enough – rather less frequent would be OK (more time for other activities – taking care of animals, sports,…)
   
   **G:** lessons were frequently enough + to continue in the program is no problem (so could be longer!)

5. **What (activities) did you like/didn’t like in the program?**

   **N:** + writing on the back, word/picture cards ordering (dictation)/ - homework!!!
   
   **G:** plastic letters, writing on the back/into flour, dominos/ - matching and letter substitution (work-sheets)

6. **What helped you the most?**

   **N:** reading   **G:** reading from cards with words – own picture vocabulary or pairs
Appendix 17: Questionnaire for parents

1. With respect to the limited time provided for the program, do you think there was achieved any shift in your son’s reading abilities in English?
   a) Yes - it became a lot better -- G
   b) Yes - it became a bit better -- N
   c) I do not see any difference
   d) No – it became worst

2. If there would be another chance (more time) would you like to continue in the program?  YES-NO-I CAN NOT SAY (both)

3. Do you think, your son would like to continue?
   YES-NO-I CAN NOT SAY (both)

4. According to the information your son gave you during the program, do you think it focused on the most problematic aspects of your son’s reading skills?  YES-NO-I CAN NOT SAY (both)

5. Do you think appropriate time (length of program, frequency of lessons) was given?  YES-NO-I CAN NOT SAY (both)

6. Do you think appropriate methods and teaching aids (respecting your son’s abilities, learning style, personality,…) were used? YES (G) -NO-I CAN NOT SAY (N)

7. Do you have any suggestions/comments about the program? (both nothing)
Appendix 18: Questionnaire for final interview with boys’ English teachers

1. How would you (using 3 adjectives) describe his reading?

N: quite fluent, more often focuses on the task – so maybe less mistakes, still problems with long(er) words
- much more active in lessons
- didn’t have so much opportunity to see him reading, but overall language impression became better
- more speaking, answering questions,…

G: more accurate – especially short words!, fluency also better (a bit)
- shift in overall reading skills – more independent, more energy left for comprehension + all language related tasks
- better orientation in whole lesson – keeping track – more interest and “enjoyment” in the language lesson!

2. Using a simple graph focusing on reading accuracy and fluency, where would you place his reading abilities?

Reading skills development - boys’ English teachers