University of Pardubice

Faculty of Arts and Philosophy

Dyslexia and English Language Acquisition: Supporting Pupils with Dyslexia in
Learning English Vocabulary

Bachelor Thesis

2024   Natálie Šatná

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ZADÁNÍ BAKALÁŘSKÉ PRÁCE
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Zásady pro vypracování

Studentka se bude ve své práci zabývat problematikou dyslexie v procesu osvojování anglického jazyka, zaměří se specificky na podpůrné prostředky pro žáky pro osvojování slovní zásoby. Nejprve definuje dyslexii jako jednu ze specifických poruch učení, následně stručně shrne její příčiny a symptomy. V dalších kapitolách bude studentka diskutovat, jak dyslexie ovlivňuje osvojování cizího jazyka, konkrétně systém slovní zásoby angličtiny, a jaké didaktické prostředky mohou učitelé ve výuce používat, aby žákům s dyslexií osvojování slovní zásoby usnadnili.

V praktické části práce studentka vytvoří pro žáky s dyslexií didaktické pomůcky pro osvojování konkrétních jazykových prostředků, lexikálních jednotek, v návaznosti na vybranou učebnici.

Rozsah pracovní zprávy:
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Prohlašuji:

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V Pardubicích dne   Natálie Šatná v.r.

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ANOTACE

Práce se zabývá dyslexií – specifickou poruchou učení, která ovlivňuje mnoho kognitivních funkcí jako čtení, psaní, paměť, automatizaci atd. a může být způsobena dědičnými nebo neurobiologickými faktory. Dyslexie má obrovský vliv na osvojování slovní zásoby v anglickém jazyce, proto jsou v práci probírány strategie, techniky a učební pomůcky, které by mohly zmírnit problémy, se kterými se žáci s dyslexií ve škole denně setkávají. Praktická část obsahuje konstrukční výzkum. Jeho součástí je hodnocení učebnice, které je založeno na kritériích vyplývajících z teoretické části. Na základě těchto výsledků byla navržena učební pomůcka, která doplňuje zmíněnou učebnici a podporuje žáky v osvojování slovní zásoby.

KLÍČOVÁ SLOVA

Dyslexie, specifické poruchy učení, osvojování anglického jazyka, hodnocení učebnice, učební pomůcky, hodnocení učební pomůcky

NÁZEV

Dyslexie a osvojování Anglického jazyka: Podporování žáků s dyslexií v učení se anglické slovní zásoby

ANNOTATION

The thesis elaborates on dyslexia – a specific learning disability which affects many cognitive functions such as reading, writing, memory, automatisation, etc., and can be caused by hereditary or neurological factors. Dyslexia also greatly influences vocabulary acquisition in the English language; therefore, strategies, techniques and teaching aids that could alleviate the problems that pupils with dyslexia face daily at school are discussed in the thesis. The practical part includes educational design-based research focusing on evaluating a textbook based on criteria drawn on the theoretical part. Consequently, a teaching aid was designed to complement the textbook and to support the pupils in efficient vocabulary acquisition.

KEYWORDS

Dyslexia, specific learning disabilities, English language acquisition, textbook evaluation, teaching aids, teaching aid evaluation

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LIST OF ABBREVIATIONS

CEFR = Common European Framework of Reference for Languages

ICT = Information and Communication Technologies

SEN = Special Educational Needs

SpLD = Specific Learning Difference

INTRODUCTION

In the Czech educational context, as in many other countries, there has recently been a shift towards inclusive education, which ensures that all pupils, regardless of their abilities or disabilities, are provided with equal opportunities to learn and participate in a mainstream classroom. It is essential to recognise and address pupils' individual learning needs, including those with specific learning disabilities such as dyslexia, and accommodate them within a regular classroom environment to promote their academic success.

Dyslexia is a common learning disability and influences language acquisition in several areas. This thesis specifically focuses on the English language and the acquisition of vocabulary. I believe that understanding and learning about this topic will lead to inventing more effective strategies that educators could use to ensure that all pupils have an equal opportunity to succeed academically. Understanding dyslexia also allows teachers to recognise the pupils' strengths and challenges. Therefore, they can explore ways to support these pupils and allow them to reach their full potential in learning English.

The thesis aims to investigate the impact of dyslexia on English language acquisition, specifically the acquisition of English vocabulary, and identify effective teaching strategies and teaching aids that help teachers support pupils with dyslexia in learning vocabulary. The practical part aims to design appropriate teaching aid that will support pupils with dyslexia in acquiring vocabulary. Because textbooks are widely used teaching material in English classrooms, the teaching aid will be designed to complement a selected textbook – Project 1.

The first chapter of the theoretical part discusses the terminology and definitions regarding dyslexia and outlines the problematic areas for pupils who face this learning disability. In the next chapter, the thesis also briefly mentions the possible causes which enable a deeper understanding of the origins of dyslexia. The following chapter focuses on the influence of dyslexia on vocabulary acquisition in terms of phonological awareness, spelling, memory, automatisation and sequencing. Finally, various teaching aids and strategies that prove to be effective and beneficial for pupils with dyslexia are discussed in the last chapter.

The practical part first provides the context and strategic plan, explaining the process of the design-based research. Then, it focuses on the textbook, its description, reasons for selection, criteria creation based on the theoretical understandings and finally, the textbook evaluation. In the last chapter, the results of the textbook evaluation serve as a foundation for a new set of

criteria for designing the teaching aid, which should complement the textbook's missing components. The thesis describes the creation process and demonstrates the use of the teaching aid in connection to selected textbook exercises from each Unit while also providing the aim of each activity. The teaching aid is evaluated based on the selected criteria at the end of the thesis.

THEORETICAL PART

1   Defining dyslexia

Recently, the term dyslexia has gained increasing recognition, attracting the attention of many researchers and educators who have tried to capture the complexity of this condition. Within the literature about dyslexia written in English, authors employ a wide range of terminology. Some describe it as a 'disorder' or 'disability[1],' while others prefer to work with expressions like 'difference' or 'difficulty.' This variation in terminology not only reflects different perspectives but also highlights the diversity of definitions attributed to dyslexia. There are also many viewpoints regarding the influence of dyslexia on various areas of learning.

Many authors use different terms to write about dyslexia. Delaney (2016, 12) mentions the term special educational needs (SEN), which means that the child with SEN has a much harder time learning and needs additional support compared to most children of comparable age. Then, she distinguishes five main categories of SEN: "cognition and learning needs, communication and interaction difficulties, social, emotional, and behavioural difficulties, sensory impairments, and medical conditions" (Delaney 2016, 12). Delaney (2016, 18-19) classifies dyslexia into the first category of cognition and learning needs, which is divided into general and specific learning difficulties. The general learning difficulties cause the pupils to progress slowly in all areas of learning, unlike the specific learning difficulties, where pupils face problems in only one area. Interestingly, Nijakowska (2010, 2) and Delaney (2016, 18-19) discuss the same concept concerning general and specific difficulties but use different umbrella terms. Nijakowska (2010, 2) describes dyslexia as a developmental disorder which can be divided into specific and general difficulties/disorders. Dyslexia is considered a specific learning difficulty because general difficulty means that the pupil has problems in many, if not all, cognitive functions. In contrast, specific difficulty suggests problems in one learning area while other areas function normally. Similarly, Zelinková et al. suggest dyslexia is a specific learning disorder (2020,12). However, another perspective is introduced by Reid (2011, 9), who defines dyslexia as a processing difference. He suggests that dyslexia is a difference in the speed and style of processing and how information is processed rather than a disability. He does place a heavy emphasis on the following: "Difference does not mean deficit!" (Reid 2011, 9). Nijakowska implies that the term specific

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[1] Specifické poruchy učení

learning difference (SpLD) has recently been preferred over specific learning disabilities or disorders. This preference stems from believing these individuals should be treated differently and not labelled as deficient (2012, 350). To summarise, diverse terminology is used to describe dyslexia, showing that many authors understand this term differently.

There are various effects of dyslexia on learning. Zelinková et al. mention that the essential characteristics of reading performance, such as speed, correctness, reading technique and comprehension, are impaired in varying degrees and combinations in pupils with dyslexia (2020, 12). Nijakowska says that such pupils struggle with acquiring reading and spelling skills but often excel in other subjects like science, sports, or art (2010, 2). Zelinková et al. do not entirely agree with this. They claim that dyslexia is not only about reading and spelling; unfortunately, dyslexia affects the learning of other subjects at school, cognitive functions like memory or a process of automatisation and adversely affects everyday life (2020, 24). Correspondingly, according to Delaney, dyslexia does not affect only language skills such as reading, writing and spelling but also processing information. In addition, she notes that dyslexic pupils find phonological and visual processing challenging while encountering issues related to poor working memory and problems with organisation, sequencing, or numeracy (2016, 54). Lastly, Reid suggests that dyslexia is primarily characterised by difficulties in literacy. He agrees with the authors above that dyslexia has the potential to influence cognition in areas such as memory, speed of processing, time management, coordination, and directional aspects, and it can involve visual and phonological difficulties (2011, 6). Dyslexia affects not only reading, writing and spelling but also broader cognitive functions and everyday life.

To conclude, the terminology used by several authors to define dyslexia varies. However, they shared a mutual perspective that dyslexia is more than having problems with reading and writing skills. It affects cognition in many areas, like memory, coordination, time management, and sequencing or organisation. Additionally, dyslexia can influence visual and phonological processing and information processing in general. Understanding dyslexia's complex nature enables further exploration of its causes.

2   Causes of Dyslexia

Understanding the causes and origins of dyslexia is an essential part of ongoing research in the field of learning difficulties. By exploring the factors that cause dyslexia, effective interventions and support strategies can be invented or improved.

The researchers and authors attribute the origins of dyslexia to hereditary factors. Dyslexia is about 40-50% hereditary. Therefore, if both parents have dyslexia, it is more probable that their child will have it as well. Moreover, since the beginning of the twenty-first century, there has been growing evidence supporting the claim that heredity is one of the causes of dyslexia, including an increased likelihood for the particular learning difficulty to run in families (Christo et al. 2009, 40-41; Nijakowska 2010, 35; Ott 2015, 87; Peer and Reid 2003, 8; Reid 2011, 23; Zelinková et al. 2020,10).

On the other hand, Hudson et al. (2007, 508) focus on the structure of neural regions in the brain, which are crucial for reading, speaking, and language processing and all of them are located in the left hemisphere. Individuals with dyslexia, compared to those without it, have less grey and white matter in a particular area of the brain, which is responsible for decoding words and causes phonological awareness problems (Booth and Burman 2001, cited in Hudson et al. 2007, 509; Roitsch 2019, 82).

Moreover, the brain hemispheres need to communicate and function cohesively for a person to learn effectively. The left hemisphere primarily processes language, phonological abilities, and skills like reading, handwriting, and auditory association. For dyslexic pupils, the left hemisphere functions less effectively, and because the curriculum is mainly left-brained, these pupils struggle immensely with learning. The right hemisphere is dominant in processing information in pupils with dyslexia and is responsible for creativity, haptic awareness, visualisation, spatial relationships, etc. In other words, the brain with dyslexia functions differently, not worse, and only needs another way of learning and solving problems. Nevertheless, the brain keeps developing, and the biological factors can change. Therefore, educators should not believe nothing can be done about this learning difficulty (Peer and Reid 2003, 57; Reid 2011, 20-21; Vitale 1982, 9-10; Zelinková et al. 2020, 10).

Dyslexia can have a hereditary origin and is often linked to neurobiological factors. Studies show structural and functional differences in the brains of dyslexic individuals, including reduced grey and white matter and poor communication of the hemispheres. It is crucial to recognise that the dyslexic brain operates differently, especially in language processing.

3 Influence of Dyslexia on Vocabulary

Dyslexia is an intricate learning difficulty, and its influence on learning is immense. It has already been stated that it influences various aspects like reading, writing, spelling, memory, sequencing, automatisation, etc. All these aspects are interconnected and influence each other.

Vocabulary is undeniably one of the most essential components of learning a language. This is because "you can say very little with grammar, but you can say almost anything with words!" (Thornbury 2002, 13). González-Fernández and Schmitt (2017, 280) strongly assert that vocabulary is a crucial component of second language learning, and it affects productive as well as receptive skills and is also seen to be a key indicator of overall language proficiency. Nevertheless, several authors and researchers discuss the possible challenges dyslexic pupils could face when acquiring new vocabulary, such as phonological awareness, deep orthography, memory, automatisation, or sequencing, etc. (Nijakowska 2010; Peer 2000; Reid 2011; Thornbury 2002; Zelinková et al. 2020).

3.1 Learning a new word

In order to learn new vocabulary, it is necessary to understand what it means to know a word. Thornbury (2002, 16) states that knowing a word includes knowing the word's grammatical behaviour, derivations, collocations, connotations, frequency and the register of the word. However, the most basic level of knowing the word is primarily knowing its form – written (spelling) and spoken (pronunciation) – and its meaning (Thornbury 2002, 16; Zimmerman 2014, 288). Zelinková et al. (2020, 75) suggest teaching pronunciation and meaning first and then moving on to spelling while considering the fact that pupils with dyslexia need more time and opportunities to practice. In a similar fashion, Janíková (2005, 74) states that pupils should first hear the word, say it, see it written down and then write it themselves.

Thornbury (2002,16) and González-Fernández and Schmitt (2017, 283) discuss the mental lexicon, which is how information about the word is stored in the mind. It resembles a network or a web where information about the words is organised and interconnected. Janíková (2005, 45) notes that the newest research from the field of psycholinguistics shows that not only words but also methods and techniques of learning the words are stored in the mental lexicon. Thornbury (2002, 18) adds that when a person learns new vocabulary in a second language, they create a second mental lexicon and assign the new word to its equivalent in their first language. This means that pupils need to keep a considerable amount of words in their memory.

Zelinková et al. (2020, 75) and Janíková (2005, 31) propose teaching a relatively small number of new lexical units per lesson, e.g., 8-10 new words, and they strongly assert that new vocabulary should be taught in context since the meaning can be dependable on it. Janíková (2005, 15) also says that when pupils with special educational needs learn new vocabulary, the teacher should employ a multisensory approach, fun and tactile activities and plenty of opportunities for repetition to enhance their chances of automatisation and remembering the word.

In short, to learn a new word, the pupils need to know primarily its form and meaning. However, many of the necessary steps that they need to take in order to learn a new word are affected by dyslexia, which makes learning new vocabulary difficult. This will be discussed in the following chapters.

3.2 Phonological awareness and its influence on vocabulary acquisition

One of the problematic areas that pupils with dyslexia face when they learn new vocabulary is phonological awareness. Two terms are being distinguished by the authors: phonological awareness[2], which is a superordinate term for phonemic awareness[3]. The former includes rhyming, separating words into syllables or identifying the first or last phoneme in a word, whereas the latter includes identifying or manipulating phonemes by, for example, dividing words into phonemes (Nijakowska 2010, 44; Zelinková 2012, 57; Zelinková et al. 2020, 16).

Phonological awareness is a problematic area for dyslexic pupils. Zelinková et al. (2020, 71) say that dyslexia causes pupils to have worsened phonological awareness; therefore, pupils with dyslexia need to hear the teacher pronounce the new vocabulary and sentences repeatedly before trying to produce the words or phrases themselves. In Harmer's viewpoint, learners can experience difficulty hearing the pronunciation features, and if they cannot distinguish the sounds, they will find it difficult to produce them themselves. Because of that, he also stresses the importance of listening to the correct pronunciation of the words on audio or by the teacher (2007, 249-250). Likewise, Zelinková et al. (2020, 17) state that attention must be paid to the correct repetition of the word's pronunciation. Furthermore, Thornbury (2002, 27) states that the easiest words to learn are those similar to the learner's first language. Assuming that the pupil repeats the words in their first language incorrectly, they will likely repeat words in the second language incorrectly as well, especially if the words are long or

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[2] Fonologické uvědomění
[3] Fonemické uvědomění

difficult to articulate. However, Reid (2011, 17) states that learning through sound perception may be difficult for some pupils with dyslexia since they have phonological difficulties. Therefore, in contrast to Zelinková et al. (2020, 71) and Harmer (2007, 249-250), he recommends using visuals along with the auditory element to support learning. In short, phonological awareness causes pupils with dyslexia difficulties in distinguishing sounds, which makes producing the words difficult.

Furthermore, dyslexic pupils show several symptoms regarding worsened phonological awareness and pronunciation. In the authors' opinion, pupils with dyslexia often mispronounce or misread especially long and complicated words (Delaney 2016, 54; Ott 2015, 137; Reid 2011, 12). Christo et al. (2009, 43-44) say that pupils with dyslexia struggle to detect rhymes, produce, segment, and recognise phonemes, and categorise sounds. Reid (2011, 12) adds that if a pupil has poor word attack skills[4], they will probably read the word visually without breaking it into sounds, letters, or syllables, especially when learning new vocabulary. Moreover, Ott (2015, 93) says that pupils with dyslexia struggle with segmenting the sounds to spell and blending them to read. On top of that, Zelinková et al. (2020, 17) mention that pupils with dyslexia have trouble distinguishing the correct pronunciation of Czech and English sounds, remembering how to pronounce them accurately and distinguishing between words that differ by only one sound. It can be concluded that poor phonological awareness influences vocabulary acquisition because the learner cannot distinguish the sounds, making it hard to learn the spoken form of the word.

3.3 Spelling and its influence on vocabulary acquisition

Problems in the acquisition of vocabulary also arise when it comes to the spelling of new words. As Reid stated, spelling involves context knowledge, familiarity with phonological representation, and phoneme-grapheme relationship (2011, 77). According to the authors, English is a language with deep orthography, which means that the relationship between phoneme and grapheme is not as transparent as, for example, in the Czech language (Zelinková et al. 2020, 73 and Nijakowska 2010, 21-22). To demonstrate this, Zelinková et al. use the example of the phoneme /s/, which can be realised by five different graphemes as follows: "s – sun, ss – dress, se – horse, c – city, ce – ice" (Zelinková et al. 2020, 73). Consequently, pupils with dyslexia experience difficulty in distinguishing between language

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[4] Word attack skills are considered literacy skills, mainly focusing on decoding words. These skills or strategies help pupils deal with words that are difficult to acquire (Doyle and Snowling 2002, 129-130; Nuttall 2005, 69).

sounds and their graphic symbols (Nijakowska 2010, 88). Deep orthography makes acquiring the written form of a word challenging for dyslexic pupils.

Therefore, there are several spelling symptoms dyslexic pupils demonstrate. For instance, Nijakowska (2010, 88) and Peer (2000, 23) mention that the pupils spell one word in many different ways in one sentence, struggle with differentiating between similar shapes of the letters, e.g., m-n, reverse the whole word, e.g., saw – was, or they reverse the individual letters horizontally or vertically, e.g., p-d-g-b. Reid (2011, 13) includes other signs, such as producing phonological spelling mistakes (e.g., using 'f' instead of 'ph'), writing letters in the wrong order, using letters with similar sounds inconsistently (e.g., 's' and 'z'), having problems with endings of the word (e.g. substituting 'ie' for 'y', etc.). These signs show that dyslexic pupils find learning to spell new English words difficult.

3.4 Memory and its influence on vocabulary acquisition

Besides phonological awareness and spelling, dyslexia also influences memory. To better understand how memory works and how words are remembered, Thornbury (2002, 23) and Zelinková et al. (2020, 24) note the system of short-term store, working memory and long-term memory. Short-term store holds a limited amount of information for a short time. However, for a word to be successfully learned and moved to long-term memory, it must go through several working memory operations, including tasks like reasoning, learning and understanding. Pickering (2006, 20) adds that if new information does not go through working memory, it is very probable that it will impact literacy. This is particularly evident in tasks that include blending phonemes or recalling the phonological and visual forms of a word when writing it down. It is crucial that the working memory is not impaired in order to remember new vocabulary.

However, Zelinková et al. (2020, 24-25) claim that working memory in pupils with dyslexia is weakened, which makes remembering new information challenging. According to Reid (2011, 77), spelling is a challenging task for those with dyslexia since it is a written activity and requires proper memory functioning. For this reason, dyslexic pupils also have difficulties recalling the letter shapes or remembering the sound that the letter makes, and they might have difficulties with notetaking, remembering sequences, short lists with information or even short instructions (Nijakowska 2010, 88; Peer 2000, 23; and Reid 2011, 14). This indicates that dyslexia's effect on memory influences phonological awareness, spelling, and other factors necessary for remembering new vocabulary.

3.5 Automatisation and its influence on vocabulary acquisition

Another problematic area for pupils with dyslexia is the process of automatisation. It is an essential part of learning a new skill, and several authors describe it as performing an action or a skill without thinking about it too much. Such skills as reading or writing might be partially or fully automatic to some pupils but not for those with dyslexia. Even with repeated practice, dyslexic pupils experience difficulties when performing tasks automatically, whether they are motor or cognitive (Nijakowska 2010, 61-62; Peer 2000, 29; Reid 2011, 23).

Because of the lack of automatisation, pupils with dyslexia might find learning the meaning of a new word challenging. Nijakowska (2010, 154) highlights the crucial ability to recognise and apply spelling patterns and sound out letters automatically. When these skills become automatic, the learner can focus more fully on understanding the meaning of words rather than think about the spelling or pronunciation. This also leads to better comprehension. Moreover, Zelinková et al. (2020, 26) state that automatisation takes longer for dyslexic pupils to acquire. However, when they do, there is a risk of negative automatisation, which means that they automatise the wrong pronunciation or spelling of a word, and it is incredibly difficult to unlearn it (Peer and Reid 2003, 19; Reid 2011, 13; Zelinková et al. 2020, 26).

3.6 Sequencing and its influence on vocabulary acquisition

Following the correct sequence can also be a challenge for dyslexic pupils. In learning English, pupils might struggle with word order when creating sentences or questions and vocabulary acquisition when naming the days of the week or months of the year. The alphabet is also problematic, especially when they try to find a word in a dictionary. (Cimermanová 2015, 41; Peer 2000, 18-19; Reid and Green 2007, 58; Thomson, 1998, 6; Zelinková 2020, 28)

In conclusion, vocabulary acquisition is affected by many problematic areas like spelling, phonological awareness, memory, or automatisation and sequencing. All of them influence vocabulary in a certain way. Impaired phonological awareness makes it hard to learn the spoken form of the word. In spelling, pupils with dyslexia struggle with the written form of words because English is a language with deep orthography. Since their working memory is impaired, they cannot remember the correct sequence of the letters to spell the word correctly or connect the sound to the letter to pronounce it correctly. Lastly, because of their worsened automatisation skill, the pupils find it challenging to automatise the spelling and pronunciation of the word as well as its meaning.

4 Teaching aids supporting pupils with dyslexia

This chapter is devoted to teaching aids, outlining their definition, types, and categorisation into material and non-material aids. Teaching aids play a critical part in the educational process by facilitating comprehension and engagement among the learners, and understanding their purpose is crucial for educators to enhance their instructional strategies and successfully meet the different learning needs of the learners.

4.1 Definition of teaching aids

Various authors discuss what the term teaching aid means. According to Maňák (1995, 49-50), Skalková (2007, 249) and Kalhous and Obst (2002, 337), it belongs to the category of material didactic means[5] since it is a material object used directly in the educational process to help pupils learn and acquire skills and knowledge. To define the term teaching aid, Průcha et al. (2004, cited in Dostál 2008, 15) say it is an object mediating or imitating reality, and it helps make explanations more illustrative and understandable while facilitating the teaching process. Similarly, Ordu (2021, 211) defines teaching aids as devices, instructional aids or real-life objects that teachers use to get learners' attention and motivate them to learn. To summarise, a teaching aid refers to a tangible object which helps pupils learn and contributes to an effective and engaging educational process.

Teaching aids are divided into several types. According to Maňák (1995, 50-51), tangible objects, models, projection, auditory aids, tactile aids, literary aids, etc. can be considered basic teaching aids. Kalhous and Obst (2002, 339) add technical teaching aids like computers. In comparison, Ordu (2021, 212) distinguishes teaching aids differently. She highlights the significant development in the 21st century, where information and communication technologies (ICT) have become essential to the educational process. Concerning the time period, she mentions conventional aids such as natural objects, specimens, or books, which were readily available for teachers and students when there were no phones, computers or the internet. Technology has progressed, and non-conventional teaching aids like interactive boards, television and computers are accessible to teachers and students. Dostál (2008, 26) also states that in the field of teaching aids, there has been a massive expansion and technical development. As a result, teachers and learners can use computers or interactive boards. Additionally, Ordu (2021, 212) notes teaching aids that involve multiple senses, like visual

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[5] Materiální didaktické prostředky

aids, for example, textbooks; auditory aids, such as audio recordings or CDs; and audio-visual aids, for instance, DVDs. Lastly, she mentions the projected aids, e.g., overhead projectors and PowerPoint slides and non-projected aids, e.g., whiteboard, posters or models. With the advancement of technology, teaching aids have expanded rapidly, and nowadays, teachers and learners can use various aids, ranging from tactile aids to technologies.

4.2 Techniques and strategies to support vocabulary acquisition

In the Czech educational context, techniques and strategies refer to non-material didactic means[6], including teaching methods, didactic principles, interactional patterns, and instructional approaches. These techniques and strategies enable repetition and practice of knowledge and skills and will be discussed in the following chapters (Kalhous and Obst 2002, cited in Dostál 2008, 16; Skalková 2007).

4.2.1 Multisensory Approach

In the Czech context, the term multisensory approach[7] is discussed by Komenský (1958, cited in Dostál 2008, 35). It emphasises that new information should be presented to learners through as many senses as possible. It aligns with the views of Kalhous and Obst (2002, 340), who say that one of the many functions of teaching aids is to illustrate reality and phenomena to the learners. Maňák (1995, 51) further elaborates on the terminology and mentions the term illustrative aids[8], especially if they are used for visual representation for learners. On the other hand, if learners can manipulate the aid, the term working aid[9] is used. However, because teaching aids are tangible items, they are always seen as illustrative aids. It can be concluded that teaching aids are essential to illustrate objects or phenomena to enable pupils to learn more effectively.

Similarly, in the Anglo-Saxon context, the term multisensory approach is commonly used, and authors state that it is an efficient approach for dyslexic pupils, which helps them reinforce their learning (Delaney 2016, 57; Reid and Green 2007, 40). There is a greater chance to associate a word's visual and phonological aspects and its meaning if more perceptual channels are open (Nijakowska 2010, 125; Zelinková et al. 2020, 24). Moreover, Reid (2011, 102) highlights that if pupils find it difficult to acquire information through auditory perception, they can still get it through visual or kinaesthetic channels. In conclusion, the

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[6] Nemateriální didaktické prostředky (Kalhous and Obst, 2002)
[7] Zásada názornosti (Komenský 1958, cited in Dostál 2008, 35)
[8] Názorné pomůcky (Maňák 1995, 51)
[9] Pracovní pomůcky (Maňák 1995, 51)

multisensory approach involves engaging various sensory modalities such as visual, auditory, and kinaesthetic and has been proven highly effective in educating pupils with dyslexia.

The multisensory approach can help dyslexic pupils acquire vocabulary in various ways. Nijakowska (2010, 125) says that pupils learn new vocabulary by learning the visual aspect - what the word looks like, the auditory aspect - how it sounds like and the kinaesthetic element - how it feels to pronounce or write the word. She also mentions that kinaesthetic and tactile stimuli can be used when the pupil forms the words or letters out of plasticine or by tracing them on different surfaces. Delaney (2016, 57) also discusses tracing the words, for instance, in the air, in sand or on a partner's back. Zelinková (2015, 167) asserts that when learning new words, pupils should speak as much as possible, repeat the words, listen to their pronunciation and compare it with their peers or teacher. It is also beneficial to see the word's written form; if possible, pupils should act out the meaning of the word. By doing so, they will engage all the sensory aspects, and remembering the new word will be easier. Troeva (2015, 67-68) notes that vocabulary can be learned using visual aids, e.g. illustrations, mind maps or flashcards with words highlighted with colours or in bold. Zelinková (2015, 169-170) highlights the usage of kinaesthetic modality through pantomime, gesticulation, rhythmising, songs and movement when acquiring new vocabulary. In short, there are many ways of implementing a multisensory approach to teaching new vocabulary.

4.2.2 Collaborative Strategies

Pupils can also benefit from the collaborative activities. Reid and Green (2007,77) suggest letting dyslexic pupils work in pairs or groups since it motivates them to participate actively in the lesson. Brinton (2014, 343) states that pairing or grouping pupils encourages second language acquisition by having them interact with each other, negotiate the meanings of words, and share their opinions. Reid (2011, 101) also mentions the importance of group work for dyslexic pupils because it can act as a modelling experience for them. Overall, collaboration brings many advantages to pupils with dyslexia.

4.2.3 Phonological Awareness Strategies

Since phonological awareness is a problematic area in vocabulary acquisition for pupils with dyslexia, it is essential to know what strategies or activities help them improve it. Ott (1997, 43) proposes two activities; the first is called 'I spy', where the teacher asks for words beginning with a particular sound, but it can also be used to focus on the sound in the middle or at the end of the word. The other activity focuses on the initial sounds and is called 'Odd-

man-out', where the pupils find the word that begins with a different sound and does not belong in the line. Zelinková et al. (2020, 73) assert that using various didactic means, such as songs, rhymes, dialogues, or jazz chants, is strongly advised to help develop phonological awareness. Especially with dyslexic pupils, a multisensory approach should be applied – teachers can use audio recordings of their pronunciation, visual support, clap in the rhythm, and involve movement. Other activities authors suggest are, e.g. focused on distinguishing the same sounds, creating word chains, blending phonemes, segmenting words into sounds, etc. (Broomfield and Combley 1997, 86; Zelinková et al. 2020, 72). Nonetheless, several activities improve phonemic awareness and make learning the spoken form of a word easier for pupils with dyslexia.

4.2.4 Spelling Strategies

Problems with spelling occur in dyslexic pupils, so it is only appropriate to mention strategies and activities that help them learn to spell new words. Ott (1997, 108) suggests using the multisensory approach to teach spelling as follows: the pupil looks at the word, says the word aloud, and writes it down as they are saying the names of the letters, and then they read the word again. Reid and Green (2007, 41) mention visualisation as another way to enhance spelling skills; however, it is very time-consuming. The pupils see the word, cover it, try to visualise it in their mind, copy it on the paper, and check if they are correct. They repeat the process after a few-minute break and again after an hour, and each week, they add one new word. Another similar strategy discussed by several authors is called Look-cover-write-check; however, its success depends on the visual memory of the pupil. The pupils are asked to first look at the word and carefully observe its features, similarities and differences. They are encouraged to trace the letters with their fingers and engage in the kinaesthetic modality. Then, they cover the word and try to keep the letters in their memory. Next, the pupils write the word, and lastly, they check their accuracy, which promotes self-correction (Reid 2011, 80-81; Ott 1997, 110; Reid and Green 2007, 39; Zelinková et al. 2020, 74). In conclusion, employing various spelling strategies can significantly enhance spelling skills.

4.2.5 Memory Strategies

Because of poor memory, pupils with dyslexia cannot remember the correct order of letters in a word, its pronunciation or its meaning; it is crucial to employ strategies that help with remembering. According to the authors, mnemonics are one of the most frequently mentioned strategies to improve memory. They should be individualised so that each pupil creates their own association; the more absurd and ridiculous, the easier it will be for them to remember it.

This should not be a problem for dyslexic pupils since most have great imaginations (Nijakowska 2010, 149; Peer and Reid 2003, 54; Reid 2011, 73; Zelinková et al. 2020, 76). Another strategy Reid (2011, 132) and Cimermanová (2015, 47) suggest is Mind mapping, which improves memory and organisation skills. The mind maps should also be created individually by the pupils themselves. On the other hand, Nijakowska (2010, 148) mentions colour coding and shape coding as another strategy to enhance remembering. Teachers can colour code prefixes, suffixes, parts of speech, etc., to enhance memorisation. This can also be applied to material teaching aids, e.g. flashcards. Janíková (2005, 45) adds that words can be acquired and stored in the memory more effectively if the multisensory approach is used and if the pupils can actively practice and use newly learned words. Lastly, Peer and Reid (2003, 54) and Reid (2011, 82-83) provide a few memory games, such as matching pairs, word searches or spotting the missing item, which can boost attention and memory. In short, many strategies and games can be employed to enhance memory.

4.2.6 Automatisation Strategy

An area that presents challenges for pupils with dyslexia is automatisation, and there is one frequently discussed strategy called overlearning. According to the authors (Peer and Reid 2003, 57), overlearning is the most effective way to achieve automatisation since dyslexic pupils often need more time to process new information. Nijakowska (2010, 123) asserts that overlearning leads to automatisation, which means pupils acquire knowledge through multiple repetitions while using appropriate methods and approaches. Especially when it comes to acquiring new vocabulary. Zelinková et al. (2020, 26) claim that automating new knowledge requires repetition supported by relevant teaching aids, small steps, a manageable amount of new information and reinforcement in various contexts and connections. In addition, Reid (2011, 131-132) highlights the importance of employing a multisensory approach while the pupils are overlearning the new information. Overlearning includes multiple repetitions and enables pupils with dyslexia to achieve automatisation.

In summary, several authors note plenty of various strategies, educational games, and pedagogical approaches which are available to support learners with dyslexia in overcoming their challenges, particularly in the area of vocabulary acquisition. However, some of the strategies presented need to be coupled with the use of material teaching aids like flashcards, teacher's own handouts, etc.

4.3 Material teaching aids to support vocabulary acquisition

Material teaching aids are, as already mentioned, tangible objects that help pupils illustrate new information and achieve educational goals. This chapter discusses textbooks, dictionaries, dyslexia-friendly tools and technology that can support dyslexic pupils in vocabulary acquisition.

4.3.1 Textbooks

One of the most used material teaching aids is a textbook, and when teachers select and evaluate them, they can look at it from various perspectives. According to Zelinková et al. (2020, 100), teachers can focus on the perspective of pupils with dyslexia. Andrychowicz-Trojanowska (2020, 79-80) states that dyslexic pupils benefit from a clear, readable textbook. However, several factors affect clarity, such as big contrast between the background and text or the insufficient quality of the print and paper. Readability can also be impacted by different typefaces, size, colour, boldness of the letters, and text spacing. Ur (2012, 201) adds that the instructions must also be clear. Additionally, Reid and Green (2007, 5) state there are dyslexia-friendly fonts, e.g. Comic Sans, Century Gothic, Times New Roman, etc., which could solve the problem with readability. Furthermore, Zelinková et al. (2020, 100) stress the importance of visual appearance since it makes the textbook attractive and positively impacts pupils' motivation, which is, according to Cunningsworth (1995, 17), an essential part of learning. However, Zelinková et al. (2020, 100) say that if there are too many pictures and text on the page, especially if it is organised into columns, it causes pupils to have difficulties orienting on this page and distracts them from the tasks. Ur (2012, 201) strongly asserts that the layout of the material should be easy to navigate for both the pupils and the teacher. Lastly, Zelinková et al. (2020, 100) mention that some textbooks include additional flashcards or audio recordings, which is beneficial for pupils with dyslexia. Based on everything that has been stated so far, it can be concluded that to be appropriate for pupils with dyslexia, the textbook should be clear and readable while having a sufficient amount of visual support and an organised layout.

This thesis will additionally look at textbooks from another perspective: the perspective of vocabulary exercises and their appropriacy. Cunningsworth places a heavy emphasis on the fact that in terms of "vocabulary, items not only need to be met in context and actively practiced, they need to be recycled three, four or more times before they become stored in the long-term memory" (1995, 28). López Jiménez (2009, 75) supports this claim and states that if the learners are repeatedly exposed to new words, they have a greater chance to remember

and store them in long-term memory. Cunningsworth (1995, 28) describes that in this way, the pupils learn the written and spoken form via progressive exposure, and they develop a deeper understanding of its use and meaning. Furthermore, according to Ur (2012, 201) and Cunningsworth (1995, 16), the textbook should also systematically increase the difficulty of the words. When learning new vocabulary, the learners should also move from the familiar to the unfamiliar and relate their knowledge to the newly encountered lexical items (Cunningsworth 1995, 28). It can be concluded that from the perspective of vocabulary exercises, the textbook should introduce vocabulary in context and include exercises to practise the form and meaning of the words while also introducing new vocabulary from the familiar to the unfamiliar and gradually increasing the words' difficulty.

4.3.2 Dictionaries

Another teaching aid is a dictionary. The authors agree that dictionaries are an essential and excellent tool for learning a foreign language. Teachers should encourage pupils to learn how to use and work with dictionaries since it gives learners autonomy (Broomfield and Combley 1997, 92; Huang and Eslami 2013, 2; Zelinková et al. 2020, 77-78).

The authors present several types of dictionaries. Ott (2015, 205) offers The Dictionary of Perfect Spelling, which benefits learners who spell phonetically. Zelinková et al. (2020, 77) mention monolingual and bilingual dictionaries, while Reid (2011, 84) and Broomfield and Combley (1997, 93) recommend The ACE Dictionary – An Aurally Coded English Dictionary, which is meant to be used by dyslexic learners specifically since it is sound-based. Cimermanová (2015, 50) adds that learners with dyslexia can use picture dictionaries. Lastly, Zelinková et al. (2020, 78) and Ur (2012, 139) mention electronic dictionaries because they allow pupils with dyslexia to repeatedly hear the word's pronunciation and see the written form simultaneously. Additionally, the pupils do not have to struggle with the sequence of the alphabet since they do not need it with the electronic version. If pupils learn to use the dictionary effectively, it can enhance their English language learning.

4.3.3 Dyslexia-friendly tools

Teachers can create their own teaching materials, such as worksheets. To be appropriate for dyslexic learners, according to Reid and Green (2007, 5), the page layout should not be crowded. Instead, it should contain visual support, larger size of letters and dyslexia-friendly fonts. Zelinková et al. (2020, 101) mention a few more principles for teachers to think about when designing their own worksheets, such as using diagrams, graphs or mind maps, the text

should not be justified but aligned to the left so that the spaces between the words are the same, and to help with contrast of white page and black print, coloured papers or coloured transparent foils can be used. Reid emphasises that "The layout and presentation of worksheets are as crucial as the content and the tasks" (Reid 2011, 7). Suppose the worksheet fulfils these principles; it can be considered dyslexia friendly.

Various tools can be used to help pupils with sequencing. According to Ott (2015, 205), looking words up in the dictionary can be quite challenging and even frustrating for dyslexic learners since they experience difficulties with sequencing and do not remember the order of the letters in the alphabet. Zelinková et al. (2020, 77-78) recommend, e.g. creating an alphabet wheel to help pupils with dyslexia with the sequence. The pupils can fold it in half or quarters so there are not so many letters they have to scan through to find what they are looking for. Reid (2011, 57) suggests using cut-out letters and having pupils find missing letters in the sequence and going backwards and forwards in the alphabet. Various teaching aids can be used to help pupils with dyslexia with sequencing.

4.3.4 Technology

Technology currently provides learners with many opportunities to enhance their education. Reid (2011, 7) says that numerous educational technologies are now accessible for school use, with many programmes designed specifically to support pupils with dyslexia. Cimermanová (2015, 55) states text-to-speech and speech-to-text software. Additionally, some of these programmes include games that improve vocabulary knowledge. Other authors (Nijakowska 2010, 148; Ott 1997, 231-232; Zelinková et al. 2020, 102) also note using computers to develop writing and spelling skills and easily access electronic dictionaries. Computers are also advantageous because they motivate the pupils, make learning more engaging, and can be adjusted to fulfil the learner's individual needs. Ott (1997, 245-246) emphasises the benefit of spellcheckers since they help pupils improve their visual memory and make it easier to automatise spelling and develop vocabulary. It is also faster than looking the word up in a dictionary. Zelinková et al. (2020, 102) also mention the use of smartphones and the language apps the pupils can download and use; for instance, the app Duolingo develops vocabulary, whereas BBC Learning English and Quizlet focus on the acquisition of pronunciation, grammar, listening etc. Besides computers, spellcheckers and specialised software, Nijakowska (2010, 148) lists other technological aids such as overhead projectors, PowerPoint presentations, the internet and websites. To summarise, technological progress is

significant and offers numerous ways to address the challenges dyslexic pupils face in their education.

In conclusion, this chapter has discussed the topic of teaching aids, providing information on their definition and categorisation. There is a variety of pedagogical approaches, educational activities, and strategies accessible to assist learners with dyslexia in overcoming their obstacles, especially when it comes to vocabulary learning. Lastly, the key qualities of textbooks, the significance of dictionaries, and dyslexia-friendly tools and technologies were also discussed in this chapter.

5 Context of the practical part

For the practical part, I will be creating a teaching aid, which means that according to Ellederová, I will be doing educational design-based research[10] since she describes it as "a construction or, in other words, design of a new product (curriculum, teaching methods, teaching materials, etc.)" (Ellederová 2017, 422)[11].

According to Easterday et al. (2014, 319), the designer should state the aim of the product and specify to whom it serves. The aim of the practical part is to design a teaching aid that will supplement the missing aspects of a textbook. The teaching aid is meant to serve pupils with dyslexia in primary school, and its goal is to support them in acquiring new English vocabulary.

Moreover, McKenny and Reeves (2012, 19) and Chráska (2016, 11) note that the theoretical understanding of the problem is an essential part of the research and for this reason, I will be drawing on the theoretical part, which includes the understanding of dyslexia, its impact on vocabulary acquisition and effective teaching strategies.

Design-based research is a process. McKenny and Reeves (2012, 74) describe it in three steps: the initial analysis of the problem, designing and building the solution, and lastly, evaluating the outcome. In the practical part, I will follow this process. However, some slight changes might be made to better suit my goals.

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[10] Konstrukční výzkum
[11] Citation is translated by the author of the thesis.

6 Strategic Plan

Drawing on the theoretical part, which covered topics of dyslexia, its causes, its impact on vocabulary acquisition and the teaching aids and strategies, in the practical part, I will evaluate a textbook and, based on the missing aspects, I will design a specific teaching aid to supplement it.

According to McKenny and Reeves (2012, 74), the initial step is the problem analysis. In the case of this thesis, this step includes the theoretical part and also the first part of the practical part, where I will describe and evaluate a textbook, and I will focus on how well the textbook supports vocabulary acquisition and whether it suits the needs of pupils with dyslexia. To do that, I will create two sets of criteria based on the findings in the theoretical part. One set of criteria will look at the textbook from the point of view of a pupil with dyslexia, while the other will assess the vocabulary exercises. The textbook evaluation is going to be subjective to some extent (Cunningsworth 1995, 9).

The result of the textbook evaluation serves as a starting point for the next step of the process, which is designing and building the solution and, therefore, the creation of the teaching aid. Based on the results of the textbook evaluation, I will create a new set of criteria for designing the teaching aid, focusing on what the textbook is missing and what can be substituted with the teaching aid. After that, I will describe the process of creating the teaching aid in detail.

In addition to McKenny and Reeves's process, I will demonstrate how the teaching aid can be used with the chosen exercises.

The last step is the evaluation of the finished product. In this section, I will comment on how the teaching aid meets the established criteria.

7 The Textbook

In this chapter, I will focus on the evaluation of a specific textbook chosen as a resource for supporting pupils with dyslexia in English vocabulary acquisition.

7.1 Textbook Description

The selected textbook is Project 1, the 4th edition by Tom Hutchinson, published in 2014 and serves as a starting point for my research.

Several factors led to the selection of Project 1 for evaluation. Firstly, it is a widely recognised and popular resource that is frequently employed in Czech educational contexts. The results of the survey conducted by Štefanová (2011, 39) indicate that the Project textbook series is the most often used English language textbook in Czech primary and secondary schools.

Furthermore, Project 1 is approved by the Ministry of Education, which adds another level of verification and assurance about its appropriateness for educational use. It also highlights how it complies with learning objectives and standards, increasing its legitimacy and applicability in language learning (MŠMT 2024).

The textbook is clearly labelled with the A1 proficiency level, aligning with the Common European Framework of Reference for Languages (CEFR). This categorisation suggests that the textbook is appropriate for pupils at the A1 level of English proficiency, making it suitable for primary school pupils.

In terms of general description, the textbook has 87 pages and covers six units. Each unit is separated into four parts (e.g., unit one includes parts 1A, 1B, 1C, and 1D). At the end of each unit, various tasks are provided, aiming at cultural exploration, integrating English across the curriculum, revision and creating projects for the pupils to present (e.g., in unit 2, pupils can do their project about their family members).

A few pages are dedicated to pronunciation, vocabulary and reading at the end of the textbook.

The Project series includes the textbook and additional materials, such as a workbook for pupils with online practice, a Teacher's Book, iTools, a DVD, a Test Builder and a Class CD.

7.2   Criteria Creation

To create the criteria for textbook evaluation, I will mainly draw on the theoretical part. For the first set of criteria, I will look at the textbook from the point of view of a pupil with dyslexia. For the second set of criteria, I will look at the textbook from the point of view of teaching and learning vocabulary.

7.2.1   Dyslexia-related Criteria

To be appropriate for pupils with dyslexia, the textbook should:

- Utilise a multisensory approach.
- Allow peer collaboration/working in pairs or groups.
- Be clear – appropriate contrast, quality of paper and print.
- Be comprehensible – clear instructions.
- Be readable – use an appropriate typeface, letter size, spacing, colours, etc.
- Include an appropriate amount of visual support on a page.
- Have an appropriately organised layout.

7.2.2   Vocabulary Exercises Criteria

From the perspective of vocabulary exercises, the textbook should:

- Teach new lexical items in context.
- Include exercises for the practice of the spoken form of the vocabulary.
- Include exercises for the practice of the written form of the vocabulary.
- Include exercises for the practice of the meaning of the vocabulary.
- Provide multiple opportunities for repetition.
- Gradually introduce more challenging vocabulary.
- Introduce the vocabulary from the familiar to the unfamiliar.

7.3   Textbook Evaluation – Dyslexia-related Criteria

The first criterion regarding dyslexia appropriateness was that the textbook should utilise a multisensory approach. After thoroughly analysing the textbook activities, I found that the most frequent exercises are the listen and repeat activities accompanied by visual support. These primarily engage the auditory and visual senses. However, the kinaesthetic channel is engaged primarily by speaking – moving the mouth, tongue and vocal cords to produce the sounds. Moreover, there is a limited number of movement-based activities in the textbook to

support kinaesthetic learners. While there are some exercises that encourage movement, such as walking or acting, they are relatively infrequent. Furthermore, there is only one activity in the textbook that encourages pupils to manipulate a tangible object to help them learn. In summary, the multisensory approach appears to be limited in the kinaesthetic sense, which could affect the appropriateness of the textbook for dyslexic pupils, as multisensory activities better accommodate their diverse learning needs.

The next criterion said that the textbook should allow pair/group collaboration. Plenty of opportunities are provided in the textbook for pupils to work in pairs or groups. These activities can help dyslexic pupils feel supported and engaged in the learning process (see Figure 1). In this activity, the pupils have an opportunity to practice their memory, reinforce their vocabulary knowledge and enhance the use of the verb have got.

Speaking

7 Work in a group. Play a game.

I've got a book.
He's got a book and I've got a mobile.
He's got a book. She's got a mobile and I've got a bag.
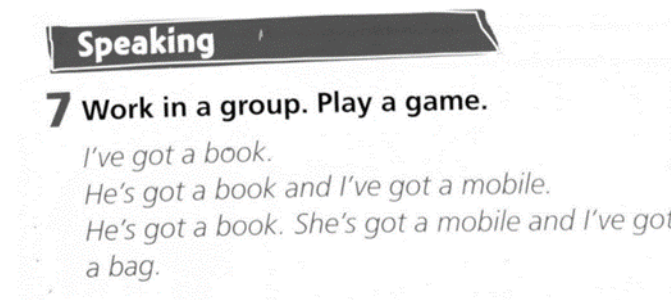
Figure 1 An example of a collaborative activity (Hutchinson 2014, 29)

The following criterion concerns clarity. The textbook should have appropriate contrast and be of the right paper and print quality. The contrast is also suitable; the white background is not too bright, which would make it hard to read the text. In certain parts of the book, such as those discussing the culture at the end of each unit, the background is not plain white, but it has a particular design, which could be described as superimposed, and there are tables with texts and exercises on top of it (see Appendix A). On the one hand, this design may be visually attractive to some students; on the other hand, it could also be a distraction for some students with dyslexia. However, this observation is based on personal assessment rather than empirical evidence and academic sources. Moreover, the pages at the end of the textbook dedicated to pronunciation, vocabulary and reading are printed in colour. Consequently, the contrast between the text and background is reduced. Finally, no printing errors or smudged text were observed in terms of print quality. However, the paper quality could be improved as certain pages are slightly transparent, allowing text and pictures to be visible from the opposite side, which could potentially distract the pupils (see Appendix B).

The next criterion states that the textbook should be comprehensible with short and understandable instructions for pupils with dyslexia. The instructions are all written in English and are short, simple, clear, and understandable.

Another criterion is readability. The textbook should use an appropriate typeface, letter size, spacing, colours, etc. In the theoretical part, it was discussed that dyslexic pupils find sans serif typefaces easier to read, and the textbook predominantly uses dyslexia-friendly fonts. However, only one instance of a different typeface was observed (see Appendix C), which might be more challenging for a dyslexic pupil to read. Nevertheless, commonly used typefaces like Times New Roman and Arial are prevalent throughout the textbook. Additionally, the size, spacing and colours of letters appear to be appropriate.

Focusing on visual support, the textbook provides relevant and clear visuals. There is a balance between the amount of text and various types of visuals, such as pictures, photos, diagrams, charts or tables. The visual support complements the text and layout and doesn't appear randomly placed, and its usage is consistent throughout the textbook.

Lastly, in terms of the layout, the textbook is well organised, with clearly defined units, sections and subsections. Each unit is consistent in format, which makes it easier for pupils to navigate. However, the layout is organised into columns, and as already stated in the theoretical part, the columns might be challenging for dyslexic pupils to navigate. To solve this problem, Zelinková et al. (2020, 100) propose creating a paper template the size of a textbook page (using it in the same way as reading windows), which covers part of the page except for one column. This way, it reduces the amount of information on the page and allows pupils to focus better on the selected segment of the page. Otherwise, the textbook's layout appears to be appropriate.

To summarise the textbook evaluation, it can be stated that in terms of dyslexia-related criteria, the textbook has room for improvement. While it offers a wide range of auditory and visual elements, the kinaesthetic and tactile senses are addressed infrequently, making the textbook less appropriate for dyslexic pupils. In terms of clarity, certain designs might be distracting for pupils with dyslexia, and the paper quality could be improved to prevent text transparency and potential distractions. Regarding readability, the occasional deviations from dyslexia-friendly fonts might cause challenges for pupils with dyslexia when they try to read the texts in different typefaces. Lastly, the textbook has a well-organised layout with clearly

defined units and sections; however, the use of columns may challenge pupils with dyslexia in navigating through the material.

While some of the criteria are not fully met, the textbook also has several strengths, such as providing several opportunities for collaborative work. Additionally, the contrast and print quality on the pages are appropriate, and the use of dyslexia-friendly fonts is prevalent. The textbook also contains very clear and understandable instructions in English and provides the pupils with a proper amount of visual support, which nicely complements the exercises and stays consistent throughout the textbook.

7.4 Textbook Evaluation – Vocabulary Exercises Criteria

The first criterion says the textbook should teach new lexical items in context. After careful observation of the exercises, it appears that the new vocabulary is taught in context through various activities, such as listening, repeating, seeing pictures, singing and using the vocabulary in relevant reading and grammar exercises to strengthen understanding and remembering.

Focusing on exercises for the practice of the spoken form of the vocabulary, the textbook provides various activities and several opportunities for pupils to do so. In each part of a unit, the vocabulary exercises first contain a task for pupils to listen and repeat the new vocabulary, allowing them to hear the word's spoken form and produce the sounds themselves. These activities encourage pupils to pronounce the words, which is crucial for developing pronunciation skills. According to Zimmerman (2014, 288), that enables them to learn the spoken form of a word. Therefore, this textbook includes enough exercises focusing on the spoken form of the word.

The subsequent criterion concerns whether the textbook has exercises for the practice of the written form of the vocabulary. While the textbook incorporates a sufficient number of various activities that aim at listening to the spoken form and pronouncing the vocabulary, there do not appear to be a lot of exercises specifically targeting the word's written form. As Zimmerman (2014, 288) states, knowing a written form means to know how the word looks like and how it is spelled. The textbook provides pupils with several opportunities to see what the word looks like; however, there are not many exercises that would allow them to spell it (write it) themselves. Written practice is essential for reinforcing spelling and word recognition, especially for pupils with dyslexia who find these aspects challenging.

Another criterion to consider is whether the textbook includes exercises for practising the meaning of the vocabulary. According to Thornbury (2002, 77), the meaning can be presented through translation, realia, illustrations, pantomime, gestures, or definitions. The textbook uses pictures and illustrations in great quantity to show the meaning of the words. In a few instances, there are exercises where the pupils act out the meaning of the word or listen to the recording, which says a definition of a word, and they have to say what word is being defined (see Figure 2).

b 🎧 2.9 Listen. What kind of animal is it?

This is a small animal. It's got a long, thin tail. The one in the picture is grey.
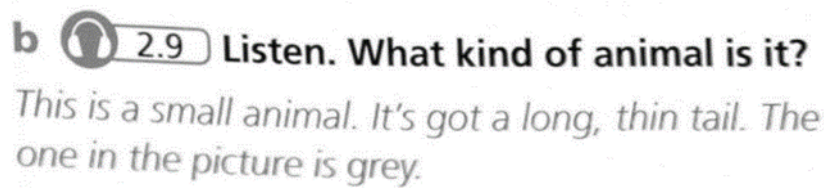
Figure 2 Exercise providing definitions of words (Hutchinson 2014, 32)

The next criterion regards opportunities for repetition, a crucial aspect introduced in the theoretical part, where several authors agreed that repetition benefits pupils with dyslexia and reinforces their knowledge and the skill of automatisation. Therefore, the textbook should provide many ways to use the new words repeatedly. Each part of a unit contains one section dedicated to vocabulary. Then, there are other sections focusing on reading comprehension, grammar, listening, speaking, etc., which use the exact vocabulary words introduced in the first section. Because of the way the units are organised, there are many opportunities for meaningful repetition of newly acquired words.

The following criterion says that the textbook should gradually introduce more challenging vocabulary. The sequence of vocabulary topics progresses from more straightforward and concrete topics to more complex and abstract ones. For example, starting with numbers and the alphabet in Unit 1, which are foundational concepts, moving on to the topics of countries and family in Unit 2, and the following units introduce more abstract and varied vocabulary related to possessions, daily routines, free-time activities and descriptive language. The textbook does seem to introduce more challenging vocabulary gradually.

The last criterion focuses on introducing the vocabulary from the familiar to the unfamiliar. The textbook introduces vocabulary from simpler and more familiar topics to progressively more complex and unfamiliar concepts. As stated before, the first units focus on basic vocabulary (numbers and the alphabet), which provides pupils with a solid linguistic

foundation. The following units build upon this foundation and gradually expand pupils' vocabulary.

When focusing on the criteria concerning vocabulary exercises, the textbook effectively teaches new lexical items in context through a variety of activities such as listening, repeating, looking at pictures, and singing, or the vocabulary items are integrated into relevant reading and grammar exercises. The textbook also provides multiple opportunities to practice the spoken form of the words through activities promoting pronunciation skills and pupils' own production of the words. Several exercises also focus on teaching the meaning of the words using pictures and illustrations. Moreover, the textbook allows meaningful repetition and reinforcement of newly learned words and progresses from the simpler and familiar terms to the more complex and unfamiliar ones.

However, the textbook was missing exercises that specifically targeted the acquisition of the written form of the words.

8   The Teaching Aid

The next chapter introduces a new set of criteria from the results of the textbook's evaluation. By looking at what the textbook is missing, I can create a teaching aid that should compensate for it and make learning new vocabulary more effective for pupils with dyslexia. After that, I will describe the creation of the teaching aid, and I will provide example activities that will demonstrate the use of the teaching aid to complement the vocabulary exercises. Lastly, I will evaluate the teaching aid based on the criteria I created at the beginning of this chapter.

8.1   The creation of criteria for the teaching aid

After evaluating the textbook, I noticed a lack of movement-based activity, especially when using tangible objects to support learning. Jamali (2023, 844) states that incorporating tangible aspects into learning is very beneficial for dyslexic pupils and allows them to learn in a fun and engaging way while enabling collaboration and providing support. Incorporating tangible objects into the learning process demonstrates improvements not only in spelling but also in reading, writing and letter-sound correspondence. In the theoretical part, it has also been stated that dyslexic pupils process information better in their right brain hemisphere, and according to Vitale (1982, 9), this part of the brain is involved in processing information through haptic awareness, making it easier or even possible for pupils with dyslexia to learn this way. Therefore, the first criterion for the teaching aid is that it needs to be a tangible object that pupils can manipulate.

Furthermore, to be appropriate for the right brain hemisphere, Vitale suggests using shapes to present new vocabulary since they "not only utilise the right hemisphere's natural tendency for spatial relationships but […] also connect a new concept to a stabilised understanding." Vitale (1982, 97). Teaching spelling with the help of shapes can make the learning process easier for pupils with dyslexia. Consequently, the teaching aid should incorporate shapes to enable the right brain hemisphere to process information more effectively.

The following criterion is based on the observation that some parts of the textbook's design might be distracting for dyslexic pupils. For this reason, my teaching aid should be clear and understandable and should not contain any distracting elements.

The fourth criterion is based on the observation that the textbook does not provide many opportunities to practice the written form of the words. Therefore, my teaching aid will focus on helping the pupils with dyslexia to spell the words correctly.

The next criterion is based on the theoretical part, where the authors (Brinton 2014, Reid and Green 2007, Reid 2011) state that collaboration is an effective and beneficial strategy for dyslexic pupils that engages them in learning. Even though the textbook provides opportunities to work in pairs or groups, I believe that further increasing collaborative activities would significantly benefit pupils with dyslexia. As a result, the teaching aid should be appropriate for group or pair work usage.

The theoretical part also discussed the problem of font type and size of the letters. Reid and Green (2007, 7) assert that dyslexia-appropriate typefaces and letter size are essential for dyslexic pupils. Therefore, the teaching aid should fulfil these specifications, too.

In conclusion, the teaching aid should fulfil these criteria:

- Tangibility: The teaching aid should be a tangible object allowing physical interaction.
- Shape integration: The teaching aid should use shapes to enable right brain processing.
- Clarity: The teaching aid should maintain clarity without any distracting elements.
- Written Form Practice: The teaching aid should focus on supporting dyslexic pupils in learning the written form of the words.
- Suitability for group or pair work: The teaching aid should be appropriate for group or pair work use.
- Readability: The teaching aid should have an appropriate typeface and letter size for effective learning and readability

8.2 Describing the process of creation

After I evaluated the textbook and the new set of criteria, I decided to create wooden blocks with letters drawn on them as the teaching aid which could be used to teach spelling and the written form of a word to pupils with dyslexia.

My brother kindly assisted me with the first step by sawing 26 wooden blocks to a uniform size (5x5x5 cm), which became a foundation for the teaching aid. Then, he sanded the sides and edges of the blocks with sandpaper so that there were no sharp edges to prevent injuries.

Then, I took on the task of drawing the letters onto each block by hand using a stencil. This approach allowed me to ensure that the letters were imprinted clearly and legibly and used dyslexia-friendly fonts and letter size. First, I searched for printable stencils of each letter in Times New Roman font, and the website Free Printable Stencils (2024) provided me with the stencils I needed. I chose this font to keep consistent with the font used in the textbook and

also because, as already mentioned in the theoretical part, the authors consider it a dyslexia-friendly font. Then, I needed to plan out what letters would go on each block. Since one block has six sides, I can put six letters on one block. I decided to create six blocks with vowels (A, E, I, O, U, Y). Merriam-Webster (2024) states that Y can be considered a semivowel. Therefore, I decided to include it with the vowels to use the six sides of the block fully. The rest of the blocks will cover the consonants. The letters were organised alphabetically (see Table 1).

Table 1 Letter distribution on the blocks

Distribution of letters on the blocks					
Block 1	A E I O U Y	Block 7	B C D F G H	Block 17	B C D F G H
Block 2	A E I O U Y	Block 8	J K L M N P	Block 18	J K L M N P
Block 3	A E I O U Y	Block 9	Q R S T V W	Block 19	Q R S T V W
Block 4	A E I O U Y	Block 10	X Z B C D F	Block 20	X Z B C D F
Block 5	A E I O U Y	Block 11	G H J K L M	Block 21	G H J K L M
Block 6	A E I O U Y	Block 12	N P Q R S T	Block 22	N P Q R S T
		Block 13	V W X Z B C	Block 23	V W X Z B C
		Block 14	D F G H J K	Block 24	D F G H J K
		Block 15	L M N P Q R	Block 25	L M N P Q R
		Block 16	S T V W X Z	Block 26	S T V W X Z
The number of each vowel	6x	The number of each consonant	6x		

I printed the stencils out in the correct size, traced them onto the blocks, and filled the outline in as precisely as possible using a black Faber-Castell Pitt Artist Pen Brush marker. When all the letters were drawn onto the blocks, I thoroughly checked every block to confirm the quality of the letters and any defects and imperfections were readily addressed.

While it was a time-consuming task, which required careful attention to detail and patience, it offered a personal connection to the creation process. It also allowed greater control over the final product, which is one set of 26 wooden blocks, including each vowel and consonant six times (see Appendix D).

8.3   How to use the teaching aid

The teaching aid can be used in many different ways to complement the textbook. As an example, I will demonstrate its use with some vocabulary exercises in all six Units. It should be noted that if the teacher opts for pair work or group work, additional sets of the teaching aid are required since only one set is adequate for an individual pupil, one pair or one small group. For demonstration purposes, it is assumed that the teacher owns multiple sets in their classroom.

8.3.1 Unit 1 – Exercise 5a

In this exercise, the task is to spell some words, which allows for the teaching aid to be used (see Appendix E). The pupils can be divided into pairs; each pair gets a set of wooden blocks and a list of a few words that the pupils are already familiar with (the words are taken from a previous vocabulary exercise in the textbook – including the words: cat, dog, man, house, door, pencil, boy, girl, board, woman, orange, pen, desk etc.). One pupil looks at the list and spells out a word letter by letter, and the other pupil puts the blocks together to spell the word. They switch roles after each word. The pupils are encouraged to provide each other feedback while the teacher monitors the activity and assists when necessary. It can be stated that this activity allows repetition and also develops phonological awareness. The aim of this activity is to help pupils with dyslexia to spell selected words correctly based on hearing the separate phonemes.

8.3.2 Unit 2 – Exercise 1a

This exercise focuses on learning the days of the week (see Appendix F). In this activity, the teaching aid can be used with the strategy discussed in the theoretical part, which is called Look Cover Write Check. In this case, the pupils work individually and do not write; they only spell the word with the wooden blocks. However, it would be possible to modify this activity and have pupils spell the word with the blocks and then write it again on paper to provide more opportunities for repetition. Firstly, the teacher plays the recording in exercise 1b, which says the words in the correct order, and the pupils are encouraged to listen and repeat to reinforce remembering the correct sequence of the days of the week. Then, the pupils look at the words in their textbooks in exercise 1a, and then they are asked to cover the words, spell the first day of the week with the wooden blocks and check if they spelled the word correctly (in the modified version, they would copy what they spelled with the blocks on paper and then check if they were correct). Then, they put a number one next to the word in their textbook and repeat the process, trying to spell the second day, third day, etc. When they have numbered all the days, the recording is played again to check if the pupils are correct. This activity aims to help pupils with dyslexia recall the correct sequence of the days of the week and spell the words correctly.

8.3.3 Unit 3 - Exercise 1a

Firstly, the teacher introduces exercise 1a to the students and explains that in the first part of this exercise, the pupils will listen and repeat new words concerning pets while looking at the pictures representing the meaning (see Appendix G). The recording is played twice. After

that, the teaching aid can be used with this exercise in the following way. However, additional material (cards with pictures of the words) will be needed (see Appendix H). The teacher instructs the pupils to work in pairs and have only one textbook open. One person of the pair will copy the word they see in the textbook with the blocks, while the other (who does not see it in the textbook) has to pronounce it and pick a picture representing the word. Then, the pupils switch and repeat the process. The pupils are encouraged to provide feedback to each other while the teacher monitors the activity and provides feedback and assistance when necessary. This activity offers additional repetition and reinforces remembering the correct sequence of letters and the meaning of the words. Moreover, it aims to help pupils to be able to correctly spell, pronounce, and recognise the meaning of the new vocabulary items.

8.3.4 Unit 3 - Exercise 1b

In the next exercise, the pupils will be asked to work in pairs, close their textbook, listen to a description of a pet, and use the teaching aid to spell the word out with the wooden blocks together. The recording will be played twice. After the pupils spell the word, they can compare their answers with those of their peers. The teacher also provides feedback by spelling the word correctly on a board. The aim of this activity is for pupils to be able to spell words correctly based on the auditory input.

8.3.5 Unit 4 – Exercise 2a

In this activity, the pupils learn to tell the time (see Appendix I). Their task is to fill in the blanks with correct expressions based on the picture showing the time. This activity can be done in pairs. It provides repetition and reinforces remembering the written form of certain expressions concerning time. The pupils look at the picture, decide what time it is, spell it with the wooden blocks and write it in the blank spaces in the textbook. They have to use the expressions provided in the exercise. The teacher monitors the activity and provides support where needed. When everybody is finished, the teacher provides feedback to the whole class. By the end of this activity, pupils with dyslexia will be able to spell the time expressions and read the time correctly.

8.3.6 Unit 5 – Exercise 1a

This exercise introduces the places or buildings in the town (see Appendix J). For this activity, the teacher will need additional material, such as a map of a town (see Appendix K). The pupils will work in pairs, with one having the role of a describer and the other the role of a speller. Each pair has one set of wooden blocks and one map. The describer picks a place or

a building on the map and describes its position using prepositions learned in the previous part of Unit 5, such as next to, opposite, between, etc. The speller listens to the description and spells out the place or building with the wooden blocks that the describer is talking about (the speller cannot speak before he spells the word). Then he says the word, and the describer confirms if he is correct. Then, they switch roles and repeat the process until the time runs out or until they have used all the vocabulary. The teacher monitors the activity and provides assistance and feedback where necessary. The aim of this activity is for pupils to be able to understand and use prepositions, recall the vocabulary denoting the buildings in town and spell the words correctly.

8.3.7 Unit 6 – Exercise 2

In this unit, the pupils are presented with new vocabulary considering clothing items (see Appendix L). In this exercise, they are asked to describe what they and their friends are wearing. It is possible to use the teaching aid if the activity is slightly modified. The pupils are divided into small groups of three. One of them says what the second one is wearing (one item of clothing), and the third spells the words out with the blocks. Then, they are encouraged to provide each other feedback and check if they spelled it right in their textbooks. After that, they switch roles and repeat the process. To challenge the pupils, the colour of the clothes can be added. By the end of this activity, pupils with dyslexia will be able to spell the vocabulary items correctly based on the auditory input.

8.4 Evaluating the teaching aid

The first criterion concerns tangibility. The wooden blocks meet this criterion because they are physical objects that the learners can manipulate. It provides pupils with dyslexia with tactile, hands-on experience, which they find beneficial in their learning process, and it also complements what the textbook was missing, which was the lack of movement-based and tactile activities. Moreover, the tracing technique, already mentioned in the theoretical part, can be applied to engage the tactile sense even more. Pupils can trace the letters on the wooden blocks with their fingers to reinforce remembering the letter shapes.

The second criterion says that the teaching aid should use shapes to enable right brain processing to enhance learning to spell. Since the teaching aid is structured in the shapes of blocks and pupils can put them in a correct sequence to spell the words, it can be stated that the criterion is met. Additionally, this approach not only stimulates right brain engagement

but also promotes a kinaesthetic learning experience, helping pupils with dyslexia master spelling skills.

In terms of clarity, the teaching aid presents the letters on the wooden blocks in a clear and easily recognisable manner. However, the natural lines or patterns on the wood I used might be distracting to some students. After a discussion about the wood with my brother, who studies carpentry, it can be concluded that the natural lines and patterns would still be there with any type of wood. While switching to a different material like plastic could eliminate this issue, it would take away the tactile experience provided by the natural wooden material.

The next criterion states that the teaching aid should focus on supporting pupils with dyslexia in learning the written form of the words. The wooden blocks address the key challenges faced by pupils with dyslexia, especially difficulties in recalling the correct sequence of letters in the written form of words.

The following criterion states that the teaching aid should be possible to use in pairs and groups. As stated before, one set of wooden blocks is sufficient for one pupil, one pair or one group. In order to include a class of more pupils, the teacher would need more sets. Nevertheless, using the teaching aid in pairs or groups is possible.

The last criterion concerns typeface and letter size. The letters are in the Times New Roman typeface and are big enough to be easily legible, supporting pupils with dyslexia in recognising and distinguishing the letters.

All things considered, the evaluation of the wooden blocks as a teaching aid for dyslexic pupils demonstrates several strengths. Firstly, the teaching aid fulfils the criterion of tangibility, allowing pupils to have a tactile experience that complements the textbook's limited movement-based activities. Secondly, the teaching aid is the shape of a block, which supports the right brain processing and enhances learning to spell while offering a multisensory experience. Furthermore, the teaching aid effectively supports pupils with dyslexia in vocabulary acquisition, especially in learning the written form of words. Additionally, the use of the blocks is flexible since it is possible to use them in pair or group work. Lastly, the typeface and letter size are dyslexia friendly.

On the other hand, there is one possible problem regarding the clarity of the wooden blocks. The natural pattern on the wood could be distracting to some pupils with dyslexia.

CONCLUSION

The aim of the thesis was to elaborate on the impact of dyslexia on English language acquisition with a specific focus on vocabulary and identify teaching strategies and teaching aids that would effectively support pupils with dyslexia in learning new vocabulary. In the practical part, the aim was to design a teaching aid that would support vocabulary acquisition for pupils with dyslexia while complementing a selected textbook.

The theoretical part offered an insight into dyslexia, which was discussed as one of many specific learning disabilities that cause pupils to experience difficulties in many cognitive areas and affect their everyday life. Dyslexia can be hereditary since almost half of the cases can have the learning disability run in families. It can also have neurobiological origins caused by different brain structures or the functioning of the hemispheres. It has been stated that language is processed mainly by the left hemisphere. However, it is the right hemisphere that functions more effectively in pupils with dyslexia, and therefore, they need to be able to learn and process information differently. In the following chapters, the impact of dyslexia on vocabulary acquisition was discussed, and it was stated that pupils with dyslexia have worsened phonological awareness; therefore, they have difficulties distinguishing the sounds and consequently struggle to produce them themselves. As a result, frequent repetition of the pronunciation of words is needed for the pupils to hear the correct spoken form in order to be able to produce it on their own. Moreover, problems with spelling were discussed as well since English is a language with deep orthography, which makes it harder for pupils with dyslexia to distinguish the spoken and written forms of letters or words. Furthermore, difficulties with poor memory, automatisation and sequencing were addressed. Pupils with dyslexia struggle to remember new information or correct sequences of letters in a word and keep it in their long-term memory. Therefore, they cannot spell or pronounce words automatically since they have to think about it because it is not stored in their memory, and they cannot use it automatically. Lastly, the theoretical part mentioned various strategies and techniques that support pupils with dyslexia in all these problematic areas. The material teaching aids such as dictionaries or technologies were discussed at the end, including the importance of appropriate textbook materials, which were further discussed in the practical part of the thesis.

The practical part focused on designing the teaching aid. Firstly, a textbook was selected based on criteria that stemmed from the theoretical part. After careful evaluation of the

textbook, a new set of criteria was created based on the results from the textbook evaluation while also including other criteria drawn on the theoretical findings. Primarily, the teaching aid aimed to support pupils with dyslexia in acquiring the written form of new vocabulary by allowing multisensory experience and collaborative work. The next step was describing the creation process of the teaching aid, which resulted in a set of 26 wooden blocks with letters drawn on each side. The whole set contains six of each vowel and six of each consonant. The use of the teaching aid was then described in connection to selected vocabulary exercises from the textbook while trying to use strategies like the Look Cover Write Check strategy covered in the theoretical part. Lastly, the teaching aid was evaluated based on established criteria.

Reflecting on the process of writing about dyslexia and its impact on English language acquisition, I find that it has been both enlightening and challenging. Discovering all the information about dyslexia, its complexity, and its influence on English learning has deepened my understanding of this subject significantly, and it has made me realise how important it is to support and accommodate learners with dyslexia.

However, throughout the writing process, I encountered various challenges, such as organising the vast amount of information I gathered when researching the topic, navigating through several different perspectives, and applying the theoretical findings to create a practical solution. During the process of creating the teaching aid, I was met with several challenges, such as determining the appropriate distribution of letters on each block or finding the most suitable method for drawing the letters on the blocks. I experimented with various techniques and markers to achieve legible and clear lettering without the ink bleeding into the wood or smudging on the surface. Nevertheless, this process taught me patience and creative problem-solving.

Further investigation of this topic could focus on the effectiveness of the teaching aid. The next step could involve implementing the teaching aid in a real-world educational context, meaning taking the teaching aid into a classroom and using it to teach pupils with dyslexia the written form of the words. The research could gather valuable data on its practical use and its effectiveness. This approach could discover potential flaws of the teaching aid or any challenges or barriers pupils would encounter while using it.

RESUMÉ

Dyslexie je v dnešní době běžně se vyskytující porucha učení a setkává se s ní mnoho žáků. V českém vzdělávacím kontextu se v této době pracuje s pojmem inkluze, díky které mají všichni žáci stejné podmínky pro učení bez ohledu na to, zda mají nějaké individuální potřeby nebo ne. Proto je důležité, aby byli učitelé schopni identifikovat tyto potřeby a vhodně těmto žákům přizpůsobit výuku.

Cílem této práce je prozkoumat vliv dyslexie na osvojování anglického jazyka, konkrétně na osvojování slovní zásoby a najít efektivní strategie a učební pomůcky, které podpoří žáky s dyslexií při učení se slovní zásoby. Praktická část cílí na výrobu učební pomůcky, která bude vhodná pro podporu osvojení slovní zásoby. Pomůcka bude navržena tak aby doplňovala vybranou učebnici a dala se používat jako její doplněk.

Teoretická práce je rozčleněna do čtyř kapitol, kde první pojednává o rozdílech v terminologii a definicích dyslexie a nastiňuje problematické oblasti pro žáky co tuto poruchu mají. Nejvíce zasaženou oblastí je čtení, psaní, fonologické uvědomění, automatizace, paměť apod.

Druhá kapitola se zaměřuje na příčiny dyslexie a její původ. Dyslexie může být ze zhruba 40–50 % dědičného původu nebo neurobiologického původu, tzn., že mozek žáka s dyslexií pracuje jinak než žáka bez dyslexie. Jelikož levá mozková hemisféra zpracovává jazyk a žákům s dyslexií funguje lépe pravá hemisféra, je důležité hledat způsoby, jak těmto žákům usnadnit učení, aby mohli používat více tu pravou.

Třetí kapitola zmiňuje vliv dyslexie na osvojování slovní zásoby. Aby žák znal slovo, autoři zmiňují že je nutné znát primárně mluvenou a psanou formu a význam slova. Dále se kapitola věnuje různým aspektům, které jsou pro žáky s dyslexií problematické a jak ovlivňují osvojování slovní zásoby. Prvně se věnuje fonologickému uvědomění, což znamená, že žáci s dyslexií mají problém s rozlišováním hlásek a nejsou je proto schopni sami vyslovovat, proto je důležité, aby učitelé často opakovali správnou výslovnost slov. Dále se zabývá psaním slov tzv. spelling. Tato podkapitola zmiňuje, že anglický jazyk je jazyk se skrytou ortografií, kde jeden foném má více grafických znázornění, což žákům s dyslexií způsobuje problémy v identifikaci slov. Další problémy, se kterými se potýkají, co se týče psaní slov je např. častá záměna jednoho písmena nebo slova a zrcadlové psaní. V následující podkapitole se práce věnuje paměti, protože žáci s dyslexií mají oslabenou tzv. pracovní paměť, kterou prochází získané informace a poté se ukládají do dlouhodobé paměti. Protože tato pracovní paměť nefunguje správně, žáci si často nepamatují význam slov, správnou sekvenci písmenek

tak, aby napsali slovo správně čili jeho psanou formu, nebo si nepamatují, jak se správně vyslovují jednotlivé hlásky tudíž mají potíže s mluvenou formou slova. Dále se kapitola věnuje automatizaci tzn. provádění činů bez přílišného přemýšlení. Žáci s dyslexií zažívají problémy s osvojováním významu slov, protože mají zhoršenou schopnost automaticky si vybavit psanou a mluvenou formu, proto více přemýšlí nad tím, jak slovo vyslovit nebo napsat místo toho, aby přemýšleli nad významem slova. Nakonec se kapitola věnuje potížím se zpracováním a pamatováním si sekvencí tzv. sequencing. Pro žáky s dyslexií je obtížné si zapamatovat správnou sekvenci písmen nebo hlásek ve slově, dnů v týdnu, měsíců v roce atd. Hledání slov ve slovníku jim také může způsobovat potíže, protože si nepamatují správné pořadí písmen v abecedě.

Čtvrtá kapitola se zabývá učebními pomůckami pro podporu žáků s dyslexií. Prvně zmiňuje jejich definici a členění podle několika autorů. Dále se věnuje technikám a strategiím, které jsou velmi prospěšné pro žáky s dyslexií. První z nich je zásada názornosti neboli v zahraničním kontextu, multisenzoriální přístup, což znamená že se do výuky zahrnuje zapojování co nejvíce smyslů najednou – poskytování zvukových, vizuálních i pohybových podnětů. Dále jsou zmíněné kolaborativní strategie, které umožňují žákům s dyslexií spolupracovat a více se zapojovat do procesu učení. Poté se kapitola věnuje strategiím a technikám které podporují rozvoj fonologického uvědomění, psaní slov (spelling), paměti a automatizace. V další části této kapitoly se věnuje pozornost materiálním učebním pomůckám, v první řadě jsou to učebnice a jejich vhodnost pro žáky s dyslexií a vhodnost cvičení na slovní zásobu. Tato kapitola je důležitou součástí pro následující praktickou část. Dále se kapitola zaměřuje na slovníky a jiné materiální pomůcky, které žáci s dyslexií mohou používat při výuce. Nakonec se kapitola věnuje informačním a komunikačním technologiím (ICT) a jejich výhodách při používání žáky s dyslexií.

Praktická část se také člení do čtyř kapitol a zaměřuje se na výrobu učební pomůcky. První kapitola uvádí kontext praktické části a představuje v ní princip konstrukčního výzkumu, který bude proveden v této části práce.

Druhá kapitola se zabývá strategickým plánem uvedeného výzkumu a představuje jednotlivé kroky, které bude práce podstupovat. Prvním krokem je tedy analýza problému v případě této práce je to zjištění s čím mají žáci s dyslexií problémy a co jim pomáhá k tomu je překonat. Toto bylo zjištěno v teoretické části. Dále se tomuto kroku věnuje třetí kapitola praktické části. Následující krok je navrhování a vytváření pomůcky, poté práce představuje, jak se dá

pomůcka použít v návaznosti na cvičení z učebnice a posledním krokem je její zhodnocení na základě stanovených kritérií.

Třetí kapitola se v návaznosti na teoretickou část věnuje zhodnocením učebnice z hlediska vhodnosti pro žáky s dyslexií a z hlediska vhodných cvičení na slovní zásobu. V této kapitole je vybrána učenice a jsou stanovena kritéria na jejichž základě se učebnice vyhodnotila a zjistilo se, co učebnice postrádá, aby byla vhodná pro žáky s dyslexií.

Ve čtvrté kapitole se pracuje s výsledky hodnocení učebnice a s poznatky z teoretické části na základě kterých jsou vytvořena nová kritéria pro učební pomůcku. Dále se kapitola věnuje detailnímu popisu postupu výroby a popisem výsledné pomůcky. Vyrobená pomůcka je set 26 dřevěných kostek s písmeny na každé straně. Každá samohláska i souhláska je v setu přesně šestkrát. Následně je v práci popsáno, jakým způsobem je možné pomůcku použít jako doplněk k vybraným cvičením z učebnice. U některých příkladů se využívají strategie zmíněné v teoretické části. Posledním krokem je zhodnocení pomůcky podle stanovených kritérií na začátku této kapitoly.

V závěru práce je dále uvedeno, jak by mohl výzkum tohoto tématu pokračovat. Například by se mohl provést výzkum, ve kterém se pomůcka otestuje přímo ve třídě s žáky s dyslexií a zjistilo by se, zda má pomůcka nějaké nedostatky, nebo zda se jim pracuje s pomůckou dobře a opravdu jim ulehčuje osvojování psané formy slov.

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APPENDICES

APPENDIX A: *The superimposed background*[12]

4 Culture

Sport

1 a (2.35) Read and listen to the information. Copy the chart and write the names of the sports in columns 1 and 2.

1 Britain	2 The USA	3 My country

These are popular sports in Britain:
football   rugby   cricket   snooker

These are popular sports in the USA and Canada:
American football   baseball   basketball
ice hockey

Tennis and golf are also popular in all these countries.

b What sports are popular in your country? Complete column 3.

48

2 (2.36) Read the text. Copy and complete the chart.

	Girls	Boys
winter	hockey	
summer		

In British schools, pupils normally have a double lesson of PE each week.

In most schools, boys play football or rugby in the winter. In summer, they play cricket and they do athletics.

Girls normally play hockey or netball (a kind of basketball) in the winter. They play tennis and they do athletics in the summer.

Most schools have a sports day in the summer. There are races and other athletics events, like the high jump, long jump and javelin. Parents and grandparents come to watch, and there are prizes for the winners.

3 How often do you have PE in your school? What things do you do? Do you have a sports day?

4 a (2.37) Listen. What sports do Cherry and Marcus play? Which ones do they like?

Cherry   Marcus

b (2.37) Listen again. Answer the questions.
1 What school teams are they in?
2 What sports do they watch on television?
3 Why does Cherry like sports day?
4 Why doesn't Marcus like cricket?

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[12] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press.

APPENDIX B: *Transparency of the page*[13]

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[13] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press.

APPENDIX C: *Example of different typefaces*[14]

Schools in England and Wales

1 (2.14) **Read and listen to the information about schools in England and Wales. Look at the chart and answer the questions.**

1 How old are pupils in:
   Year 1?   Year 6?   Year 9?
2 How many years are they at primary school?
3 How many years are they in the sixth form?
4 Are pupils at school on Saturday?
5 Where do pupils have lunch?

The school day is from about 8.45 to about 3.30.
There are no lessons on Saturday and Sunday, but
a lot of secondary schools have got sports matches
on Saturday morning.
Most pupils have their lunch at school.
About half have a school lunch and half bring
sandwiches from home (a packed lunch).
Most schools have got a school uniform.

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[14] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press.

APPENDIX D: *The Teaching Aid*

APPENDIX E: *Unit 1, Exercise 5a*[15]
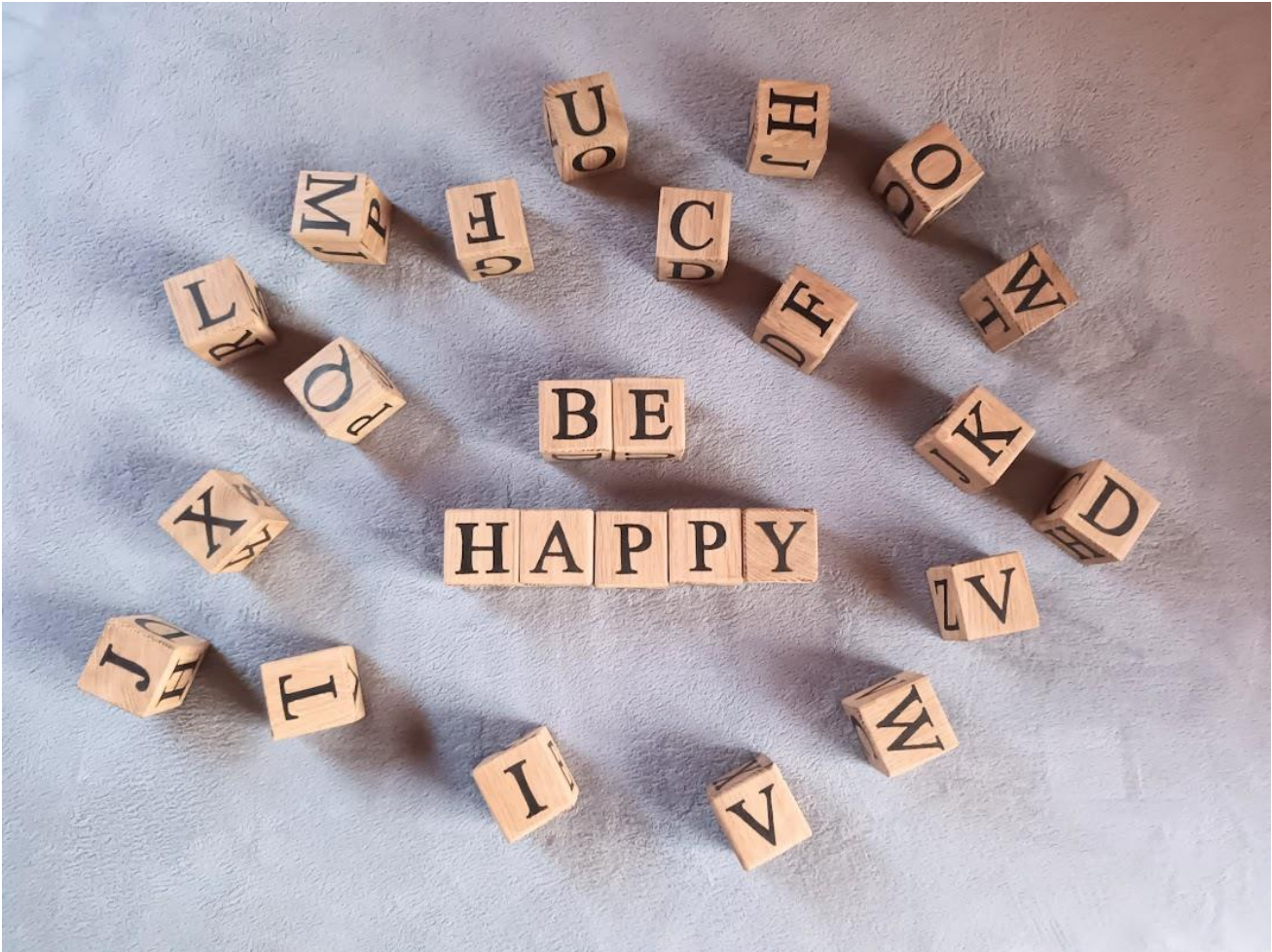
1D How do you spell that?

Vocabulary

1 (🎧 1.22) Listen and repeat.

Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll Mm
Nn Oo Pp Qq Rr Ss Tt
Uu Vv Ww Xx Yy Zz

2 (🎧 1.23) Listen and sing.

Let's sing the ABC.
Sing the letters, sing with me.
A B C D
E F G
H I J K
L M N O P
Q R S
T U V
W X Y and Z.
Let's sing the ABC.
Sing the letters, sing with me.

Let's sing the ABC.

3 (🎧 1.24) Listen and write the words.

D double O R

1 door

4 a (🎧 1.22) Listen to the alphabet again. Put the letters in the column with the same sound.

/eɪ/	/ɪː/	/e/	/aɪ/	/əʊ/	/juː/	/ɑː/
A	B	F	I	O	Q	R
	C					

b (🎧 1.25) Listen and check.

c Say the letters in each column.

5 a Work with a partner. Spell some words.

b Work in a group. Spell your name.

10

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[15] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press.

APPENDIX F: *Unit 2, Exercise 1a*[16]

2D What day is it today?

Vocabulary

1 a Write the days of the week in the correct order.

Monday

Saturday · Thursday · Monday · Friday · Sunday · Tuesday · Wednesday

Do you know the days of the week in English?

b 1.50 Listen and repeat.

Is it Tuesday today?

No, it isn't. It's Wednesday.

2 1.51 Listen. What day do you hear?

Friday

22

[16] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press

APPENDIX G: *Unit 3, Exercise 1a + 1b*[17]

3C Have you got a pet?

Vocabulary

1 a 🎧 2.8 **Listen and repeat.**

1 a hamster

2 a rabbit

3 a rat
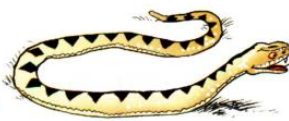
4 a snake
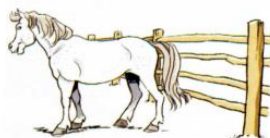
5 a horse

6 a mouse
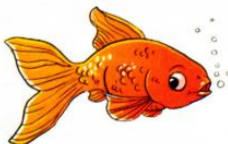
7 a fish (plural: fish)

8 a spider

9 a budgie (a bird)

10 a parrot (a bird)

b 🎧 2.9 **Listen. What kind of animal is it?**

This is a small animal. It's got a long, thin tail. The one in the picture is grey.

32

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[17] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press

APPENDIX H: *Additional materials (cards with pictures)*

APPENDIX I: *Unit 4, Exercise 2*[18]

4A What's the time, please?

Vocabulary

1 [2.22] Look at the clocks. Listen and repeat.

ten to six

five to nine

five o'clock

five past three

ten past seven

quarter to one

to past

quarter past eight

twenty to four

twenty-five to twelve

half past ten

twenty-five past eleven

twenty past two

2 a Write the times. Use these words.

quarter past   ten to   twenty to   five past   quarter to   half past   twenty-five to   o'clock

1 *It's quarter past four*

2 *It's...*

3

4

5

6

7

b Rewrite this with the correct punctuation.

whatsthetimepleaseitssevenoclock

8

40

[18] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press

APPENDIX J: *Unit 5, Exercise 1a*[19]

5C Our town

Vocabulary

1 a (2.52) Listen and repeat.

1 a station
2 a theatre
3 a hospital
4 a church
5 a hotel
6 a bank
7 a cinema
8 a sports centre
9 a swimming pool
10 a café
11 a post office
12 a museum
13 a shopping centre
14 a supermarket
15 a square
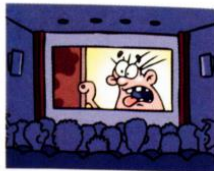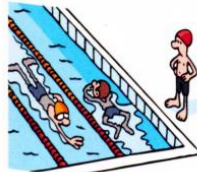
b Which of the places are there near your home?

There isn't a station near my home.
There are three cafés in my street.

56

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[19] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press

APPENDIX K: *Additional material (a map of a town)*

6D Clothes

Vocabulary

1 a 🎧 3.10 Listen and repeat.

4 a sweatshirt

1 a jumper

2 a skirt

3 boots

A

7 a coat

5 jeans

6 socks

B

8 a dress

9 shoes

C

10 a tie

11 a shirt

13 trousers

15 shorts

D

14 a cap

12 a jacket

16 trainers

E

b 🎧 3.11 Close your book. Listen. Which person is wearing the things? Say A, B, C, D or E.
This person's wearing a black jacket   D

2 What are you and your friends wearing now?
I'm wearing a blue shirt, black jeans, ...
Elsa's wearing ...

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[20] Hutchinson, Tom. 2014. *Project 1*. 4th ed. Oxford: Oxford University Press