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# **Diplomová práce**

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## **The Efficiency of Graded Readers for Teaching Vocabulary: A Combination of Two Approaches**

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Souhlasím se zapůjčením diplomové práce ke studijním účelům.

I have no objections to my MA thesis being borrowed and used for study purposes.

## **Abstrakt**

Diplomová práce se zabývá vztahem mezi zjednodušenou četbou a výukou slovní zásoby. V práci se pokoušíme zjistit, zda zjednodušená četba skutečně vede k akvizici slovní zásoby na základě poskytnutého kontextu. Kromě toho se v práci zabýváme četností výskytu jednotlivých neznámých slov a interpretujeme ji jako významný faktor ve výuce slovní zásoby. Tyto dvě proměnné porovnááme na výsledcích testů dvou skupin. Účastníci první skupiny cílový text pouze četli, zatímco druhá skupina byla mimo četby vystavena i poslechovému vjemu (namluvenému rodilým mluvčím). Dosavadní výzkum v této oblasti vedl k formulaci hypotézy, která motivovala celou práci: skupina, která má možnost text nejenom vidět, ale i slyšet, předčí ve výsledcích testů skupinu, která pouze četla.

Po uvedení do tématu práce (první kapitola) se snažíme definovat zjednodušenou četbu v kapitole druhé. Zjednodušená četba je založená na poskytování dostatečného kontextu pro pochopení neznámé slovní zásoby. V této kapitole

se pokoušíme doplnit postřehy z praxe a teoretický základ z odborné literatury. Ve třetí kapitole vymezujeme metodologii, kterou ve výzkumu používáme. Jedná se o replikaci studie od Waringa a Takakiho (2003), doplněnou o studie v oblasti čtení doprovázeného poslechem. Zmíněnou metodologií se snažíme změřit, zda je čtení doprovázené poslechem účinnější než čtení bez poslechu. Třetí kapitola obsahuje výzkumné otázky a základní hypotézu, která byla motivací pro naše zkoumání. Ve čtvrté kapitole analyzujeme výsledky experimentu a porovnááme je s původní studií. Těžištěm této kapitoly je i porovnání našich zjištění s výzkumnými otázkami. V páté kapitole shrnujeme výsledky práce, porovnááme je s hypotézou a navrhuje postup pro další bádání.

**Klíčová slova:** zjednodušená četba, četba, slovní zásoba, poslech

## **Abstract**

The diploma thesis deals with the relationship between graded readers and teaching vocabulary. We examine whether extensive reading leads to vocabulary acquisition on the basis of context provided by graded readers. In addition, we focus on the frequency of occurrence of individual lexical items and we interpret it as an important variable in teaching lexis. These two factors are compared using test data from two groups of experiment participants. The first group (the reading group) was asked to read the text at their own pace, while the second group was asked to read the text while listening to it being narrated by an English native speaker. Based on hitherto research, the listening group is expected to outperform the reading group.

After introducing the topic in chapter 1, we attempt to define extensive reading in chapter 2. Graded readers are based on providing sufficient amount of context for understanding unknown vocabulary. In this chapter we contrast practical application of extensive reading with theoretical foundation in secondary literature. Chapter 3 delineates the methodology used in the present thesis. It is based on replicating a study by Waring and Takaki (2003), and also on research into audio-assisted reading. This methodology is used to measure the efficiency of reading and contrast it with the efficiency of reading assisted by audio input. Chapter 3 also lists research questions and the primary hypothesis. Chapter 4 is based on analyzing the findings of our experiment and on contrasting them with research questions. Chapter 5 summarizes the results of the thesis, compares them with the hypothesis and suggests areas for further research.

**Key words:** extensive reading, graded readers, vocabulary, listening

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## List of Abbreviations

A (1, 2, 3)	administration (1, 2, 3)
ER	intensive reading
GR	graded reader
IR	intensive reading
L / L group	listening group
L1	first language (i.e. mother tongue)
L2	second language
R / R group	reading group

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# 1 Introduction

Years of research into reading had led Stephen Krashen to the “uncontroversial conclusion” that reading is “good for you” (Krashen, 2004: 37). It could be argued that for such a self-evident claim no research is needed, and that we should appeal to common sense instead of relying on research. We all can relate to a moment of epiphany while reading, or to our favourite work of fiction. Research transforms such personal experience into figures, charts and numbers. Using quantifiable data, one of the questions that research into reading attempts to answer is the following one: In what manner exactly is reading beneficial?

Although being a receptive skill, reading is essential for language production. When asked to give advice to beginning writers, the American fiction writer William Faulkner replied: “Read, read, read”<sup>1</sup>. The type of language production that Faulkner had in mind was completely different from the scope of the present thesis. However, we took the liberty of using it to show the attitudes to reading from the perspective of a professional writer, and to point out that it is applicable in relation between reading and writing, as well as between reading and other language skills (both productive and receptive), in one’s mother tongue, and in other languages as well.

Leaving the realm of literature translated into one’s L1 and books written in one’s L1, the language learner runs into an obstacle. Books written in the foreign language are too demanding (whether lexically or grammatically), and reading them—far from being a pleasurable activity—is a laborious task. Since literature written by native speakers for native speakers is likely to be far too complex for lower language levels, graded readers (GRs) were designed specifically for language learners. They are divided into levels of difficulty in terms of vocabulary, grammar, as well as overall complexity. The learner-reader chooses books appropriate for his or her language level. Given the variety of GRs in English, the linguistic level in the target language is not the only variable. The learner is free to choose topics that are of interest to him or her.

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<sup>1</sup> Interview with Jean Stein, available at <<https://www.theparisreview.org/interviews/4954/william-faulkner-the-art-of-fiction-no-12-william-faulkner>>.

GRs are part of the so-called “extensive reading” (ER) program. It is designed to prevent (or eliminate) demotivation caused by reading material that would otherwise be too complex. For Stephen Krashen, ER (or “free voluntary reading”) is fundamental in second language acquisition, since it provides “messages we understand presented in a low-anxiety environment” (Krashen, 2003: 37-38). The reader should be relaxed; the goal is not to learn directly, but to enjoy the activity of reading. Learning new lexical items or consolidating one’s grammar awareness is a by-product of the pleasurable activity of reading.

Krashen goes as far as to argue that this is the only way of acquiring language (Krashen, 2003: 37). Although there are other forms of input that are essential for acquiring a foreign language (e.g. listening), reading is undoubtedly a vital form of input in language development.

Bearing that in mind, the primary motivation for the present thesis is the following question: in relation to second language, in what way exactly is reading beneficial?

This question reflects one of the problems of researching reading. Its positive impact is not necessarily quantifiable. The findings of Waring and Takaki (2003) suggest that ER does not lead to significant vocabulary gains (or vocabulary retention). Instead, ER consolidates what the learner already knows and expands his or her passive as well as active knowledge of the language. The improvement takes place in one’s grammar as well, although the focus of Waring and Takaki (2003) is vocabulary. Vocabulary (and measuring its retention) is also the focal point of our thesis.

In addition to providing vocabulary input, ER also expands the reader-learner’s mental lexicon. GRs include collocations and colligations, synonymy (and other word relations) and through sufficient exposure, ER also leads to register awareness (e.g. speech of individual characters contrasted with the narrator’s commentary). Equally problematic to measuring vocabulary retention through reading is also the incorporation of ER in language teaching. Not only is it a long-term goal, it is also a time-consuming activity, and it is with difficulty that it finds a place in language classes.

The goal of our thesis is to examine the efficiency of GRs for teaching and learning vocabulary. In addition to examining whether word meaning can be inferred from context provided by GRs, the thesis also surveys whether word meanings can be retained over time (measured in regular intervals). To measure it, our thesis employs the methodology introduced by Waring and Takaki in their study “At what rate do learners learn and retain new vocabulary from reading a graded reader?” (2003).

This involves using substitute words, i.e. non-existing words referring to existing concepts. They correspond to English orthography and spelling (as confirmed by a native speaker, both in the original study and in our thesis). The GR used in the experiment (*A Little Princess*) includes a total of 25 target substitute words. Using non-existing words ensures that only the target vocabulary retention is measured, and it is a more reliable tool than measuring the knowledge of existing vocabulary before and after the reading.

Our thesis expands on Waring and Takaki’s study (2003). The participants of our experiment were chosen from a different academic background, and different L1. By providing a sample from a different context, our thesis attempts to contribute to the present research into reading and listening, and examine the efficiency of this technique for language learning and teaching.

Additionally, we drew on the research into the interplay between reading and listening (in particular Webb and Chang (2015)), and attempted to measure differences between the two forms of input through practical application. The participants were randomly divided into two groups: the reading group (participants only read the text) and the listening group (the participants read the text and listened to the story being narrated by an English native speaker). The hypothesis of the present thesis was that the listening group would outperform the reading group. The results in relation to our hypothesis are discussed in 5.2.

Data was collected electronically. After collection, each participant’s name was anonymized using a code. Personal information was deleted, and the participant cannot be traced back.

After the introductory chapter (chapter 1), chapter 2 defines the fundamental principles of ER and contrasts it with intensive reading (IR). It addresses Day and Bamford's 10 principles of a successful ER program, and follows them with a theoretical discussion. Chapter 2 also maps hitherto research into vocabulary retention via ER and GRs (including the appropriate number of encounters with the target word, ER in relation to writing), as well as research into extensive listening. Chapter 3 delineates the methodology employed in the present thesis, which is based on the replication of two studies (Waring and Takaki (2003), Webb and Chang (2015)), and explains the motivation for replicating them. Chapter 4 analyzes the results of our experiment and contrasts them with findings of Waring and Takaki (2003). Chapter 5 summarizes the thesis, discusses its findings in relation to the research questions and hypotheses, and provides suggestions for further research.

## **2 Theoretical background**

### **2.1 Introduction**

The theoretical chapter introduces the concept of extensive reading (ER), since the practical application of ER is the primary focus of the present thesis. The concept of ER is best understood in contrast to its counterpart, intensive reading (IR). The chapter therefore first defines IR before addressing ER. In addition to defining ER, the chapter also discusses its goals, main techniques (e.g. GR), hitherto research (especially into vocabulary acquisition and retention in relation to ER), audio-assisted reading, and touches upon the future of ER (both in research and in its practical application).

The chapter addresses some contentious areas in reading research and in teaching reading. Further elaboration is included as a part of or as a follow-up to the analysis of the experiment (in chapter 4 which includes data retrieved from the experiment, and which interprets their meaning). By doing so, the thesis attempts to address some of the problematic theoretical concepts (in chapter 2) and contrast them with their practical application (in chapter 4).

Given the nature of the present chapter, the description of the individual approaches to researching and teaching reading is based mostly on secondary literature. Its purpose is to establish a theoretical basis for the methodology (introduced in chapter 3), and for the research and interpretation of data (chapter 4).

### **2.2 Intensive Reading**

As we pointed out above, intensive reading (IR) is best understood in relation to its counterpart, ER. ER relies on reading large quantities of texts relatively quickly, its aim being general comprehension. IR, on the other hand, is “careful reading [...] of shorter, more difficult foreign language text with the goal of complete and detailed understanding” (Bamford and Welch, 2007: 1). Since translation appears to strike a balance between checking understanding and saving precious classroom time, it frequently accompanies IR activities. While translation may be implemented in ER activities, it is not a prototypical activity associated with ER.

To show the relationship between the two approaches, let us make use of Waring’s table illustrating the differences between IR and ER (Waring, 2003; the table is based on Welch, 1997). Individual criteria are listed in the middle column; the approach of IR and ER to these criteria are listed in the left and in the right-hand column, respectively.

<b>Intensive reading</b>		<b>Extensive reading</b>
Analysis of language	LINGUISTIC FOCUS	Fluency, skill forming
Usually difficult	DIFFICULTY	Very easy
Little	AMOUNT	A book a week
Teacher selects	SELECTION	Learner selects
All learners study the same material	WHAT MATERIAL	All learners read different things (something interesting to them)
In class	WHERE	Mostly at home
Checked by specific questions	COMPREHENSION	Checked by reports / summaries

*Table 1 – the differences between IR and ER (Waring, 2003; the table is based on Welch, 1997)*

Individual distinctions between IR and ER listed in the table are based on their prototypical uses. IR activities are often found in language textbooks and are goal-oriented. They focus on target forms or a specific piece of information. In combination with their shortness, this requires full concentration of the readers. The teacher can check their understanding in a series of questions asking for specific details. IR material is generally more demanding and includes larger amounts of unknown vocabulary than a GR. As a rule, the whole class works using the same material, which is then checked by the teacher (alternatively, it can also be checked in pairs, provided that the students know the correct answers, or that an in-class discussion follows).

However, there is a considerable overlap between IR and ER. For example, the case could be made that the teacher as a more experienced language user and as an informed professional should decide what GR to read (not in terms of topic or

content; he or she should recommend the appropriate level to the language learner). Also, while reading a different book is appealing to individual readers, the situation in which the whole class reads the same book opens up the possibility of an in-class discussion (or a presentation of a chapter by a student followed by a question and answer session). Similarly, a well-designed in-class activity involving IR material can be as beneficial to fostering the learner's fluency and skill forming as reading a GR. The table presents opposite tendencies and there are numerous possibilities between them. Instead of understanding IR and ER as polar opposites, we may understand the differences between them as a scale.

This may be exemplified in the category "where". There are no fixed rules and ER activities may take place during a language class (e.g. the DEAR method), as well as outside the class. The teacher may also include audio-assisted activities to promote pronunciation awareness and to draw attention to some of the prosodic features of the target language, such as intonation, word or sentence stress. While such activities may be done home (either in the form of an assignment, or as an enjoyable activity), the teacher is an expert language user and can provide his or her students with reading technique suggestions, as well as error correction. This application combines ER with direct language instruction; by combining the two approaches, it boosts the efficiency of reading activities for vocabulary retention, but also for general language use.

Although viewed as opposing in many aspects by Waring, IR and ER should be understood as complementary. Lems et al. stress its consolidation effects, as ER is "the best global method to help all learners consolidate their reading comprehension" (Lems et al., 2010: 183). The time-consuming ER is the preferred technique of reading in one's spare time, IR is better suited for language classes.

Empirical research has addressed the differences between IR and ER. Al-Homoud and Schmitt (2009) tested the efficiency of ER in challenging conditions: the participants were low-level students, the results were measured in an environment where pleasure reading is not typical, and the course duration was short. The researchers then contrasted two different approaches to reading: ER and a more traditional approach (including IR and vocabulary exercises). Al-Homoud and Schmitt's experiment showed that in terms of vocabulary acquisition, reading speed and comprehension ability, the results of the two groups were approximately

the same. Most importantly, the ER participants reported enthusiastically on the ER approach, unlike the IR participants.

Beglar et al. (2012) contrasted the reading rate and efficiency of four groups of students: the IR group and three “pleasure reading groups” (i.e. the participants read ER). The experiment compared data from a pre-test and a post-test and showed that all of the three pleasure groups outperformed the IR groups. Beglar et al. (2012) conclude that for the majority of the participants, reading a simplified book (i.e. a GR) every 2 weeks was the most efficient way of achieving higher reading rates.

Suk (2017) investigated the impact of the ER approach on reading comprehension, reading rate and vocabulary acquisition. The research was measured on 4 groups of Korean university students in the span of a 15-week semester. The participants were divided into 2 control groups and 2 experimental groups (88 and 83 participants respectively). The 2 control groups received 100 minutes of IR instruction per week; the 2 experimental groups received 70 minutes of IR and 30 minutes of ER per week. The two experimental groups significantly outperformed the two control groups in all three areas (reading comprehension, reading rate and vocabulary acquisition). Suk’s experimental approach shows the efficiency of combining IR and ER approaches. More importantly, it tests students in non-artificial conditions (100 minutes of reading per week is a realistic goal), whereby providing teachers with sensible suggestions for their reading curriculum.

In the three mentioned studies, vocabulary acquisition and retention were the only two criteria of measuring the participants’ improvement. This shows the difficulties of researching the impact of reading one’s language skills. There are some areas that are not measurable through quantitative data analysis.

### **2.3 Extensive Reading**

Having sketched out the nature of IR, in the present subchapter we turn our attention to ER. Day and Bamford (2002: 137-141) provide a list of ten key principles required for a successful ER programme. To describe ER as accurately as possible, the list is included below in its entirety. Being mainly practical, each of Day and Bamford’s principles is followed by a theoretical commentary. The plethora of articles written on their principles (both positive and critical) reflects its

importance in ER programmes and research. Some of them are included in the following discussion.

***1. Students read as much as possible, perhaps in and definitely out of the classroom.***

As the name of the reading technique suggests, ER is a time-consuming reading technique and is not designed for in-class application. However, some teachers incorporate the DEAR (Drop Everything and Read) method, wherein students spend a short period of time reading on their own. In-class reading can be followed by an activity related to the previous reading task, ideally implementing a productive skill (either writing or speaking). It is more demanding for the teacher to ensure that students practice writing or speaking outside the classroom, but it can take the form of written assignments. These may be followed in the class by a spontaneous in-class interview. In-class reading activities also provide a chance for teaching the students reading strategies (e.g. note taking, skim and scan reading).

Davis emphasizes “quantity and variety” over “quality”, as the selection of GRs is based on the “attractiveness and relevance to the pupil’s lives rather than for their literary merit” (Davis, 1995: 329). Although quantity remains the vital factor, GRs do not necessarily lack artistic merit. A good deal of GRs consists of classic and popular authors whose books have been simplified for language learners (e.g. Jane Austen, Emily Brontë, Mark Twain). The students do not lack the ability to understand complex plots and themes, but they lack the linguistic competence to read the stories in the original. GRs are tailored for students with limited knowledge of the language.

To give an example of how the ER program should be carried out, Waring suggests reading a book a week (Waring, 2003). While this may seem an excessive amount, GRs tend to be short (as a rule, the less demanding the book, the shorter it is as well). For instance, the elementary level Penguin Readers *The Pearl Girl* (2008) is 14 pages long. Since the length increases with the difficulty of the book, Cambridge University Press’ *A Love for Life* (2000; the highest level, level 6) is 112 pages long. With the reading fluency gradually increasing, reading a book a week is a realistic goal (i.e. it provides language learners with sufficient amount of reading material without overwhelming them). In addition, the reading progress is

measurable. Moreover, reading can be done in regular scheduled sessions, which is beneficial for cultivating learner autonomy and ideally results in creating a life-long habit that is applicable not only to language studying and reading in a foreign language.

***2. A variety of materials on a wide range of topics is available so as to encourage reading for different reasons and in different ways.***

Principle 2 appears to present a challenge for the teacher. Given the individual preferences, one cannot choose an ideal book for an entire class. The teacher therefore presents a selection of texts, rather than a single one, from which each student chooses. Because of this, the selection should be multi-generic (not necessarily GRs, but also magazines or newspapers for language learners). It is perhaps worth pointing out a caveat. Given the plethora of ER materials, the reader may feel overwhelmed. The role of the teacher in assisting the student is discussed in point nine.

Some schools may not have access to different GRs. In this case, assigning the same reading task for the entire class seems to be a plausible alternative. The teacher can make use of this deficiency to provoke an involved in-class discussion (e.g. one student or the teacher plays the devil's advocate).

***3. Students select what they want to read and have the freedom to stop reading material that fails to interest them.***

Choosing a text on one's own is very different from a typical language class environment, where the whole class uses the same textbook and works on the same exercises. However, this approach is much more similar to a real-life situation, as each student is responsible for his or her own choice. The student also learns how to deal with such a situation—they are free to stop reading should the material be of no interest to them. This takes off some of the pressure on the teacher and at the same time fosters autonomous learning. As Krashen points out, this is “the kind of reading highly literate people do all the time” (Krashen, 2004: 1).

In addition, the teacher should encourage not giving up after the first few pages. While appealing to the language learner, in the realistic environment of the language classroom, the teacher should bear in mind that the school is not

necessarily well-equipped for such tasks and that the access to GRs may be very limited (e.g. a small library), or that the students do not have the financial means to build a GR library of their own. In that case, the teacher may have to implement the alternative approach outlined in principle 3.

***4. The purposes of reading are generally related to pleasure, information and general understanding. These purposes are determined by the nature of the material and the interests of the students.***

As has been argued, IR is a goal-oriented activity and requires nearly complete comprehension and perfect concentration. In contrast, ER relies on exposure to simple material. The reader absorbs and acquires the language while he or she enjoys reading the book of his or her choice (in ideal conditions). It is vital that favourable reading conditions be created. These are individual—every reader chooses what suits him or her best (although the role of the language teacher should not be neglected, as Day and Bamford point out in principle 9).

Multiple studies and surveys have shown the positive effect of stress-free environment and pleasurable reading on reading comprehension, reading rate and speed, as well as general comprehension and creating positive attitudes to reading (Al-Homoud and Schmitt, 2009; Huang (2015); Wardani (2015); Martinez (2017); Mikami (2017)). Such environment is essential and the teacher should encourage reading in such conditions.

***5. Reading is its own reward. There are few or no follow-up exercises after the reading.***

Principle 5 appears to be in conflict with what has been said in relation to principle 1. However, some editions of GRs do include follow-up activities that check comprehension. For example, Penguin Readers retelling of Emily Brontë's *Wuthering Heights* (1999) includes a series of tasks in the back of the book. These are related to a span of four to nine chapters and include activities as varied as discussing a difficult passage, gap-filling exercises, writing and role play (Attwood, 1999: 143-147).

Roughly one half of them is to be done before and one half after the reading. In addition to checking comprehension, these activities are goal-oriented and focus on

target grammar and vocabulary, as well as on practicing rhetorical and writing skills. Being separated from the text itself, they give the teacher the option to skip them or implement them into the reading task, depending on the needs of individual students. Alternatively, the teacher can incorporate them into an in-class discussion without students even noticing it.

While students are generally discouraged from using a dictionary while reading as it slows the reading down and may have a detrimental effect on the reading process, some of the tasks even require the use of dictionary. For example, students are asked to look up the word ‘coffin’ in their dictionary and then describe its shape (Attwood, 1999: 145). Importantly, reading the book and using the dictionary are separate activities. By doing so, the edition avoids the frustrating procedure of looking up the words in a dictionary while reading. Moreover, it is a highly efficient technique not only of checking comprehension, but also of teaching the target vocabulary and fostering learner autonomy.

Mori (2015) addresses the contradictory nature of principles 5 and 6: if reading is a reward of its own and should be encouraged as an effortless way of gaining vocabulary and language acquisition, it is paradoxical to include it as a course requirement. Moreover, when designing a syllabus, we should bear in mind that students might not be voracious readers, and even if they are, reading in their own language satisfies their reading needs without any conscious effort.

Rather than dispose of principle 5, language teachers should take different reading habits into account (these may be related to cultural differences, e.g. between North America and East Asia), and not rely solely on individual intrinsic motivations for reading (Mori, 2015: 5). Principle 5 should therefore be understood in relation to principle 9 (the language teacher is a guide for the student).

Similarly, Robb (2015: 146) argues that Day and Bamford’s 10 key ER principles should not be followed blindly. The language instructor should always think about potential benefits of deviating from them, as well as detrimental effects in following them too closely. As a response to principle 5, Robb attempts to point out the benefits of using quizzes such as MReader. MReader is widely used all over the world. It is a platform which presents the student with 10 randomized questions of different task types (true/false, multiple choice, sequencing), which are

completed in relatively short time (about 5 minutes). Teachers can track their students' development (Robb, 2015: 146-147). Online quizzes often include gamification elements, which is a more attractive alternative to commonly used materials in the ER activities (importantly, students use a different medium), and they also include an element of novelty that some learners might find appealing.

***6. Reading materials are well within the linguistic competence of the students in terms of vocabulary and grammar. Dictionaries are rarely used while reading because the constant stopping to look up words makes fluent reading difficult.***

This principle is arguably the most important one. On a scale of reading difficulty, ER is an activity located between IR and speed reading practice. The former “can learn new word [sic] and grammar”, while the latter is a “natural reading” with “high comprehension” that is “very fast, fluent [and enjoyable]”.<sup>2</sup> Simple, yet enjoyable texts are the primary source of intrinsic reading motivation (Mori, 2015: 5). GRs are designed to fulfil these specific requirements.

On the other hand, the role of grammar in ER should not be neglected. Waring and Takaki (2003) conclude that through the constant repetition of sentence patterns, the reader's knowledge of the grammar and syntax of the target language is consolidated. As the Extensive Reading Foundation guide shows, the percentage of known vocabulary is interrelated with reading speed and comprehension<sup>3</sup>. All of these aspects are variables of measuring and reflect the linguistic difficulty of the text. Although tailoring texts to fit individual needs is impossible, the large quantities of GRs give readers opportunities to experiment with what suits them best (both in terms of content and linguistic difficulty).

Mori (2015) revisits principles 5 and 6. If the language instructor provides a teaching tool associated with pleasurable activity (such as reading), he or she has to deal with the paradoxical situation in which students are asked to do something they enjoy as a requirement.

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<sup>2</sup> “The Extensive Reading Foundation guide to ER”, available at <<http://erfoundation.org/wordpress/guides/>>.

<sup>3</sup> “The Extensive Reading Foundation guide to ER”, available at <<http://erfoundation.org/wordpress/guides/>>.

Mori (2015) examined two different kinds of motivation: intrinsic and extrinsic. It has been widely agreed that there is a positive correlation between the amount of reading and intrinsic motivation (i.e. willingness to read in one's first language, understanding reading as an enjoyable and rewarding activity); while extrinsic motivation (i.e. both the task and the content of the reading material is not relevant to the reader; the goal is to focus on the language) received positive, neutral, as well as negative results (Mori, 2015: 129-130). Other studies into motivation include Takase (2007). Takase also showed that intrinsic motivation is a vital factor which correlates with the amount of reading (Takase, 2007; in Mori, 2015: 130).

The primary focus of GRs is expanding the readers' vocabulary. The number of newly introduced words is quantifiable and is a popular research question. This number is deduced from the so-called headwords (discussed p. 36), or words that are required to understand the text. Newly introduced vocabulary are the words that are not on that list. GRs should be designed in such a way as to not only introduce the unknown word, but also to use it in different contexts multiple times.

Waring and Takaki point out that if learning is to take place, "there should be a good balance of known and unknown words", that is, difficult texts hinder successfully guessing from the context, the primary method of teaching vocabulary (Waring and Takaki, 2003). In compliance with "high level of text comprehension and text coverage", there should be 1 unknown word in every 50 words—the optimal rate is between 96 and 99% (Waring and Takaki, 2003). To visualize this quantity, Grabe suggests using 3-6 unknown words in a 300-word page (Grabe, 2009: 311).

The Extensive Reading Foundation guide states that the knowledge should be between 98 and 100%<sup>4</sup>. Hu and Nation confirm the high rate of knowledge, arguing that the ideal rate is 98% (Hu and Nation, 2000: 422). This amount is interrelated

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<sup>4</sup> Reading a text with 100% comprehension and one's knowledge of vocabulary is referred to as "speed reading practice". The Extensive Reading Foundation guide to ER, available at <<http://erfoundation.org/wordpress/guides/>>.

with the concept of density and familiar vocabulary items. To exemplify this, let us make use of a table used by Hu and Nation (2000: 405):

% coverage	Density of unfamiliar and familiar tokens	Number of text lines per 1 unfamiliar word
99	1 in 100	10
98	1 in 50	5
97	1 in 33	3.3
96	1 in 25	2.5
95	1 in 20	2
90	1 in 10	1
80	1 in 5	0.5

*Table 2 – The number of familiar and unfamiliar tokens per 100 tokens; in correlation to their frequency per line of a text (Hu and Nation, 2000: 405).*

As Hu and Nation point out, with the increased percentage of known vocabulary, the density of unfamiliar words per 100 tokens is lowered significantly: with the coverage of 95% of the running text, the reader encounters 1 unfamiliar lexical item in 20 words; with the coverage of 97%, it decreases considerably. In contrast, the difference between 80% and 81% coverage is hardly noticeable (Hu and Nation, 2000: 405).

These figures are only approximate. When interpreting them, we must bear in mind that each reader has different needs and is familiar with different lexical items. We must also bear in mind typological differences between languages. English is an analytical language and makes frequent use of function words. These words are passively understood by speakers from early stages and low levels, and do not require as much attention as lexical words.

Individual lexical items are easily measurable. In contrast, more recent research also addresses more complicated areas of ER, such as lexical chunks. Pereyra (2015) points out that since GRs rely on teaching the reader meaning from the preceding and following context, examining collocations is an essential part of ER research. Pereyra suggests shifting attention from studying individual vocabulary items (e.g. Grabe 2011, in Pereyra, 2015: 220) and concentrating on lexical chunks instead (Pereyra, 2015: 220). However, Pereyra points out that the

results of the research are still very modest and that the testing shows enhancement, not acquisition of lexical chunks (Pereyra, 2015: 228).

**7. *Reading is individual and silent, at the student's own pace, and outside class, done when and where the student chooses.***

The seventh principle is based on lowering the “affective filter”. The concept of “affective filter” has been proposed by Stephen D. Krashen and refers to a “block” that keeps the input out (Krashen, 2004: 130). Krashen argues that when “language acquirers are anxious, or put on the defensive”, they may understand the input, but it “will not reach those parts of the brain that are responsible for language acquisition” (Krashen, 2004: 130). Language acquisition is thus hindered, and the learner is left demotivated. Arguably, this may have a detrimental effect on intrinsic motivation (discussed in principle 6), and negatively affect the future development of one’s reading habits.

Finding and creating suitable reading conditions is therefore necessary for language acquisition to take place. Ideal reading conditions are individual, and learners themselves have to decide what suits them best. Looking for and experimenting with optimal reading conditions improves learner autonomy.

In addition, in-class reading does not necessarily have to be silent. Possible approaches to audio-assisted reading are discussed in 2.6.

**8. *Reading speed is usually faster than slower as students read books and material they find easily understandable.***

This principle appears to contradict the previous one (reading the text at “the student’s own pace”). However, Day and Bamford argue that readers read faster when they read enjoyable and easy-to-understand texts as opposed to linguistically more challenging texts. The keyword in reading speed in ER is “fluency”. Grabe argues that being able to read longer stretches of text “with reasonable comfort and without needing to stop constantly, and without feeling fatigued or overwhelmed” is “a hallmark of fluent reading” (Grabe, 2009: 311). This may be used as a working definition of reading “fluency”. One of the goals of ER programs and ER materials (GRs) is to create ideal conditions for fluent reading.

One of these conditions is comfortable reading speed, which is a result of choosing a text at or below one's language level. This distinct feature calls for one more comparison to IR. IR tasks generally require low reading speed, careful reading and careful re-reading of a passage to look for a specific piece of information.

***9. Teachers orient students to the goals of the programme, explain the methodology, keep track of what each student reads, and guide students in getting the most out of the programme.***

Although based on textual simplicity, the abundance of ER materials may appear overwhelming to students lacking experience in reading in L2 (and possibly in L1). The role of the teacher is to facilitate the learner in choosing the right ER activity (or the appropriate GR level). As Silberstein suggests, this may take on the form of "locating texts suited to students' goals and interests and introducing techniques appropriate to the task at hand" (Silberstein, 1994: xiii). Although the student does the reading on his or her own, the role of the teacher is vital for efficient ER to take place.

However, without being given a set of preliminary instructions, the student runs the risk of being demotivated. Keeping track of what students have read, and perhaps even giving follow-up assignments such as book summaries and in-class presentations, the teacher lowers the risk of intrinsic demotivation. It also presents a chance to combine different activities and practice different language skills. Ideally, the teacher is a guide that helps the readers and by doing so fosters their autonomous learning.

***10. The teacher is a role model of a reader for the students – an active member of the classroom reading community, demonstrating what it means to be a reader and the rewards of being a reader.***

Hiebert and Fischer point out that it is necessary to encourage students to read "voraciously"; a goal which is to be achieved by in-school (i.e. external) motivation: "If English language learners are to read voraciously at home, they also need to read voraciously at school" (Hiebert and Fischer, 2006: 291). The ideal goal is to create a life-long habit. The teacher should motivate ("demonstrating [...] rewards of being a reader") and inspire by being a role model of a reader, e.g. by sharing personal reading or language learning experience. This is especially

important for students who do not have reader models at home. L2 reading activities (especially ER) can positively affect one's reading habits not only in L2, but also in L1. Students also benefit from being assigned follow-up tasks that practice other skills—e.g. writing (book or chapter summary) or speaking (in-class presentation or discussion).

Importantly, both readers and teachers bring their cultural experience and background into the language classroom (e.g. reading habits in Asia, as opposed to North America). Drawing on research into cultural psychology, Mori (2015) points out that East Asia can be understood as culturally interdependent, while North America as culturally independent. The language instructor needs to bear the cultural differences in mind when designing a course including (not only) ER activities.

This is an essential variable in terms of motivation: the intrinsic motivation of East Asian students tends to increase when they do not choose the texts themselves, but a trustworthy authority figure does it for them (Iyengar & Lepper, 1999; in Mori, 2015). As Takase argues, two most influential factors in reading motivations are “intrinsic motivation for first language (L1) reading and second language (L2) reading” (Takase, 2007: 1). One's cultural patterns are reflected in his or her foreign language skills. Both students and teacher can benefit from these differences, without imposing their own patterns onto each other.

Powell summarizes the characteristics of ER programs. They generally include “relatively fast reading of a large amount of longer, easy-to-understand material” and reading on one's own (sometimes in, usually outside the language classroom) at “each student's own pace and level” (Powell, 2005: 28).

Such definitions are very flexible (in terms of interpretation), and verge on being vague. As Macalister (2015: 127) points out, this can lead (and has led) to confusion both among teachers, and among students. While being a sound basis for any ER program, we should bear in mind that Day and Bamford's principles are guidelines, not strict rules that need to be followed; they should always be based on common-sense application (based on one's familiarity with the students), and the teacher should at all times avoid over-complication (Macalister, 2015: 127).

The ten practical principles were contrasted with extant research on ER in an attempt to combine Day and Bamford's practical suggestions with more theoretical suggestions. Theory and its practical application will be discussed in chapter 4, alongside data analysis.

## **2.4 Extant Research in ER**

Having outlined the premises of ER programs, as well as the nature of GRs, let us now turn our attention to the research into ER and GRs.

The "right" ER material is individual and depends on the language learner. Ideally, the GR should contain 98% of known vocabulary (Hu and Nation, 2000). Knowing the vast majority of the lexical items (i.e. providing comprehensible input) in the text implies that the reader should ideally learn the remaining 2%. ER and GRs have been shown to be essential in consolidating the current vocabulary knowledge of the language learner (Senoo and Yonemoto, 2014). This implies expanding one's awareness of varying connotations (through context). The present subchapter focuses on extant research into ER, in particular on vocabulary retention, vocabulary acquisition and ER in combination with writing practices.

### **2.4.1 The impact of ER on vocabulary retention**

Laufer (2003: 567) challenged what he refers to as "the basic assumption underlying the claim that reading is the major source of vocabulary acquisition in L2". In particular, Laufer focused on the link between guessing and retention, guessing in general and cumulative gain (Laufer, 2003: 567). The study contrasted ER material with word-focused tasks (completing sentences, writing, incorporating words in a composition). Laufer concluded that higher vocabulary gains were achieved through goal-oriented tasks.

The research appears to ignore the fact that ER material is much better suited for consolidating the knowledge of vocabulary that the learner already knows (Suk, 2017), and that the more efficient goal-oriented tasks demand a greater amount of concentration and are generally carried out in shorter periods of time than ER activities. ER activities, on the other hand, rely on being a pleasurable activity.

Mason and Krashen (2004) designed an experiment in which they contrasted two groups of students. The first group received auditory input, the second group

received auditory input which was followed by supplementary activities. Surprisingly, the former group outperformed the latter. In addition, they spent considerably less time (15 minutes, as opposed to 85 minutes). The experiment shows that input based on context is more efficient than traditional vocabulary instruction. Mason (2005) is consistent with these findings and confirm the hypothesis propounded by Mason and Krashen (2004).

Horst (2005) points out that vocabulary growth measurement is a challenging task and provides a methodology for measuring it. It consists of electronic scanning, lexical frequency profiling, and individualized checklist testing. This is a response to studies into general language gains. Horst tested the method on 21 ESL students and concluded that it is more efficient than previous studies as far as vocabulary gains are concerned.

Pigada and Schmitt (2006) offer a similar viewpoint on alternative forms of testing vocabulary acquisition and retention. Using a sample of students of French, they examined full as well as partial knowledge of 133 words learnt after 1 month of enhanced ER program. The participants were tested in the form of a 1 on 1 interview. In addition, the study also examined the correlation between frequency of occurrence and vocabulary retention rate. Its findings show enhancement (partial or full knowledge) of 65% of target vocabulary items, and a strong enhancement of orthography (even with a small number of exposures). The study makes a strong case for vocabulary acquisition through ER practices.

Since ER is based primarily on incidental learning, it calls for a comparison with intentional learning. Lehmann (2007) compared two groups: participants in one group were asked to look up unfamiliar words in a dictionary, while participants in the second group were discouraged from doing so. Both groups read a series of short articles and a novel over one semester. A pre-test was administered to determine the approximate language level of the participants, and a post-test was administered to contrast the pre-test and the post-test results. The results show very few differences between the two groups (the intentional group performed slightly better in word-recognition tasks pertaining to reading short articles).

Chun et al. (2012) contrasted ER and paired-associate learning effect on vocabulary retention. The research was carried out using neuroscientific methods.

It concluded that both techniques (ER and paired-associate learning) led to successful results in short-term retention of target words. The results show that ER is more effective in long-term retention. Importantly, this result is supported by using neuroscientific methods of measurement.

Webb and Chang (2015) carried out an experiment in which they examined prior knowledge of vocabulary and its effect on vocabulary retention. They concluded that it may have a positive impact on the amount of newly learnt lexical items in ER activities. However, the results may not be uniform, since the participants were divided into three groups based on their previous knowledge—each learner has different learning experience and knowledge of vocabulary.

#### **2.4.2 Vocabulary acquisition**

Although acquisition is not the focal point of the present research, it needs to be addressed in relation to ER. The very problematic concept of second-language acquisition is perhaps most aptly defined in contrast to learning. Language acquisition can be interpreted as “an environmentally natural process”, as opposed to “learning” which is “an instructional process which takes place in a teaching context” and which guides the performance of the language user (i.e. learner) (Tavakoli, “acquisition”, 2012: 9-10). The following paragraphs use this as a working definition pertinent to ER, since it also relies on exposure in context rather than direct language instruction.

Research into vocabulary acquisition differs in terms of measuring the “depth of knowledge”, or the extent to which language learners understand a word (Tavakoli, 2012: 100). For this reason, some researchers design tests which measure partial knowledge, as well as full knowledge or complete unfamiliarity with the word (e.g. Waring and Takaki, 2003; Senoo and Yonemoto, 2014). In addition, Senoo and Yonemoto (2014) also included a semistructured interview that reflects the language learner’s vocabulary acquisition in a different light. We believe that this approach to testing (i.e. testing different levels of knowledge of a word) is more efficient than testing either full or no knowledge at all, and therefore we adopt this approach to testing.

The efficiency of ER for vocabulary acquisition is an area of contention both among its proponents and detractors. One of the main problems is that the language

learner needs to be familiar with some core lexical items to understand even the simplest texts. However, no such list exists.

An alternative is to use the most frequent words; e.g. Coady (1997) suggests familiarizing the language students with the most frequent 3000 words, and through constant vocabulary practice teaching the students this list to the point of automaticity. Both prior to and after introducing ER materials (mostly GRs), students need sufficient comprehensible input, supportive feedback and appropriate material for studying (Coady, 1997: 233).

When discussing vocabulary retention, we need to differentiate between the ability to recognize the word while reading or listening (i.e. receptive skills), and to recall the word while speaking or writing (i.e. productive skills).

Rott (1999) showed that as few as 2 exposures significantly improved receptive vocabulary gain, with a dramatic increase after 4 and 6 exposures (the retention measurement showed positive results even after 4 weeks). On the other hand, the productive skills were much less predictable, with only half of the participants showing a significant rate of retention (Rott, 1999). This needs to be taken into account when designing curriculum based on ER. Ideally, ER should be complemented by IR activities to boost the vocabulary retention, as has been shown by Suk (2017).

A different prominent problematic area is the fact that vocabulary acquisition is incremental and incidental. Incidental learning is definable as lacking in intentionality to learn, and frequently occurs when the attention of the learner is shifted from the form to the content of the conveyed message. The focus is predominant, but not complete; for efficient language acquisition to take place, the language learner needs to store the word in his or her working memory, notice the form (at least to some extent) and reflect on or infer the possible meaning of that particular word in the given context (Tavakoli, “incidental learning”, 2012: 163-164). Since the process of e.g. vocabulary acquisition through incidental learning is gradual, it has been challenged as an inefficient method (Tavakoli, “incidental learning”, 2012: 163-164).

Incidental learning is best understood in contrast to its counterpart, intentional learning, or “a type of learning in which a person consciously sets out to learn something” (Tavakoli, “intentional learning”, 2012: 181). The language instructor frequently draws the learners’ attention to a form, or asks the students to purposefully study a list of vocabulary items. While being more efficient than incidental learning on tests (Tavakoli, “incidental learning”, 2012: 163-164), we should bear in mind that intentional learning is much more demanding and requires considerable amount of concentration. The types of learning are not exclusive, but complementary.

To outline the research into L2 acquisition through ER programs, let us make use of a table included in Horst (2005: 34):

<b>Study</b>	<b>No. of participants</b>	<b>Text type</b>	<b>Text length</b>	<b>No. of words tested</b>	<b>Mean no. of words learned</b>
Ferris (1988)	51	<i>Animal Farm</i> , unsimplified novel	1 book	50	7
Pitts, White & Krashen (1989)	35	<i>Clockwork Orange</i> , unsimplified novel	1 excerpt	28	2
Day, Omura & Hiramatsu (1991)	200	<i>Mystery of the Mask</i> , simplified story	1 story	17	3
Hulstijn (1992), exp. 1	65	Simplified passage	1 passage	12	1
Dupuy & Krashen (1993)	42	<i>Trois hommes et un couffin</i> , unsimplified drama	Video excerpt + 15 pages	30	7
Horst, Cobb & Meara (1998)	34	<i>Mayor of Casterbridge</i> , graded reader	1 book	45	5
Rott (1999)	67	Simplified passage	6 paragraphs	12	6
Horst (1999)	1	<i>Lucky Luke</i> , unsimplified comic	1 book	300	85

Horst (2000)	1	<i>Der Besenbinder</i> , unsimplified novella	1 novella	300	66
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Table 3 – Selected studies of incidental L2 vocabulary acquisition through reading (Horst, 2005: 34).

As the table shows, Horst used texts of varying length—from paragraphs and excerpts, to novellas and entire novels. When discussing the efficiency of vocabulary acquisition, we have to bear in mind that the amount of learnt vocabulary should be expressed using percentage. For instance, the participants of Horst (1999) learnt 85 words from the total of 300, which is 28.3%, as opposed to the impressive 50% as shown by Rott (1999) in a much more modest experiment involving only 12 words (both in Table 3).

More importantly, the individual text types differ considerably. Some research uses unsimplified texts (Ferris, 1988; Horst, 2000; both in Table 3), and some uses simplified texts (Day, Omura & Hiramatsu, 1991; Hulstijn, 1992; Rott, 1999; in Kweon and Kim (2008)). In contrast, Pitts, White and Krashen (1989) used the unsimplified version of *A Clockwork Orange* by Anthony Burgess. The book uses fictional slang words, which is a very similar method to using substitute words used by Waring and Takaki (2003). This type of measurement is more reliable, although the results show weak retention (2 out of target 27 words, i.e. 7.4%).

The table shows that with so many variables, measuring vocabulary retention is a very complicated and frequently unreliable process.

Since Horst’s research, researchers have focused on vocabulary acquisition, as well as other aspects of language acquisition. Song and Sardegna (2014) investigated the relationship between ER programs and acquiring correct use of prepositions (in favour of the group treated with ER). Pereyra (2015) researched the acquisition of lexical chunks. This is an important and novel approach to studying vocabulary retention in relation to ER, as it focuses on bigger units than simple vocabulary items. Mori (2015) and Suk (2017) have already been discussed. Daskalovska (2018) suggests combining explicit vocabulary instruction with incidental learning and stresses the importance of ER for gradual vocabulary acquisition.

### 2.4.3 Writing

Writing can be understood as a productive counterpart to reading (receptive skill). It is essential to include both kinds of activities—students need to understand, but also be able to express themselves in the target language. With the wide array of topics provided by GRs, this can be achieved by providing students with topics of interest. Appropriate pedagogical integration is needed (Ro and Park, 2016). The present subchapter outlines extant research into integrating writing into reading activities, and its positive impact on the language learners.

Janopoulos (1986) attempted to find positive correlations between pleasure reading (both in L1 and in L2) and L2 writing proficiency among 79 graduate US university graduates who were not native speakers of English. Janopoulos concluded that there was a positive correlation between writing proficiency and the quantity of time spent with L2 pleasure reading (not with L1, or L1 and L2 pleasure reading). Tsang (1996) examined the effects of an enriched syllabus (regular reading and writing tasks plus ER and frequent writing). Tsang contrasted the ER syllabus with a syllabus including mathematics, concluding that the ER syllabus was the most efficient.

Day (2004) suggests assigning written exercises as a follow-up to ER and points out that written activities help students reflect on what they read, show their understanding, as well as improve their writing. Mason (2004) measured the efficiency of supplementary writing exercises in the mother tongue of the participants (Japanese) and in English. The experiment was designed to measure accuracy (the participants were corrected). However, the results were negative: Mason concludes that written summaries are inefficient for accuracy development.

Lee and Hsu (2009) examined the effects of ER on writing performance of group of Taiwanese students. Lee and Hsu purposefully chose a group of less successful results in their academic lives to show the positive impact of indirect reading instructions. The results showed significantly positive gains of the experimental group. The results were marked on the basis of pre-tests and post-test designed by Jacobs et al. (1981). These measure content, organization, vocabulary, language use in general, as well as mechanics.

Mermelstein (2015) also focused on improving writing skills through an ER program. The experiment used pre-tests and post-tests designed by Jacobs et al. (1981) as well. Mermelstein (2015) added the subscale of fluency. The study found that the treatment group significantly outperformed the non-treatment group. Enhancing previous ER protocols can potentially lead to significant gains among learners.

ER programs have a positive impact on writing in more specific environments. Ro and Parks (2015) suggested implementing brief writing activities (e.g. 10 minutes) as a follow-up to ER in the specific context of English for academic purposes. In a different study, Ro and Parks (2016) focused on readers' attitudes towards L2 writing as a follow-up activity to ER activity. The researchers analysed written responses (both qualitatively and quantitatively) of 16 participants to writing assignments. Ro and Park's study indicates students' positive attitudes to writing activities themselves, as well as to the beneficial aspects of creating writing habits. It can facilitate engagement in reading activities among students in in-class activities (given correct pedagogical integration).

In a similar study, Sakurai (2017) examined the relationship between positive results in writing assignments (as well as in task achievements, lexical resources and general language use), and its relationship to ER.

## **2.5 Graded Readers**

Grabe and Stoller define GRs as a “series of books, usually written for L2 students”, which instead of relying on “grade level” are ranked “by vocabulary level, grammar structures or another level difficulty” (Grabe & Stoller, 2011: 287). They are graded in the sense that their readers “gradually work through the series as they become ready for more challenging vocabulary, grammar, length, etc.” (Grabe & Stoller, 2011: 287). Following Day and Bamford's sixth principle, GRs take away the feeling of frustration resulting from reading a text above one's linguistic competence. In this respect, GRs rely greatly on incidental learning and on teaching the target language in context (discouraging the use of a dictionary, p. 22).

There is no uniform scale indicating the difficulty of the text. Some editions (e.g. Penguin) include a rough estimate of the difficulty on the basis of The

Common European Framework of Reference for Languages. John Milne suggested an alternative assessment on the basis of clarity and relevant content<sup>5</sup>. The two different approaches show that GRs can be subdivided into different levels using different criteria.

In addition, publishers generally make use of “headwords”. Headwords are defined as being “similar to a dictionary entry where a group of words share the same basic meaning. E.g. *helps, heling, helpful, helpless*”<sup>6</sup>. As the example shows, GRs make use of different contexts to teach different forms of a single word. While important in English, this is a crucial element in inflectional languages (e.g. verb conjugation in Czech or Spanish), and in languages with stronger inflectional presence (e.g. adjectival declension in German).

Exposure in changing contexts is pertinent to GRs for learners of languages using different scripts (e.g. different readings of a single character in Japanese). Students’ attention can be drawn to word formation processes, which enlarge their vocabulary and extend their familiarity with the given language. Moreover, headwords are a reliable indicator; the fewer the words that the language learner is familiar with, the less challenging the grammar in the given GR.

Gillis-Furutaka (2015) argues that other factors need to be taken into account when determining the readability of GRs, such as cultural issues, literary devices (and their complexity), illustration, plot complexity, and idiomatic language. The number of headwords is merely a single criterion in establishing the GR level.

The ER foundation manual lists three most common types of GRs: “simplified version of existing works, original stories or books that are factual in nature”<sup>7</sup>. As has been pointed out, some editions are accompanied by exercises that practice the target grammar or vocabulary, as well as other skills (writing or speaking; the use of audio input is touched upon in section 2.5). In addition, the lower levels generally include illustrations. These can be used to disambiguate a complex situation and serve as a visual guide for the reader (e.g. verbs such as

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<sup>5</sup> “The Extensive Reading Foundation guide to ER”, available at <<http://erfoundation.org/wordpress/guides/>>.

<sup>6</sup> “ERF Graded Reader Scale”, available at <<http://erfoundation.org/wordpress/graded-readers/erf-graded-reader-scale/>>.

<sup>7</sup> “The Extensive Reading Foundation guide to ER”, available at <<http://erfoundation.org/wordpress/guides/>>.

“give” and “take”), that assists in the process of language acquisition and memorization.

Because of their simplification, GRs tend to be understood as inferior. Challenging this view, Hill likens GRs to film and stage adaptations; in the same way that film or stage adaptations are designed for their respective audiences, “L2 rewrites of these novels work for learners” (Hill, 2006: 186). We should also bear in mind that neither faithfulness to the original, nor philosophical depth are the primary focus of GRs.

However, to indicate that GR do not necessarily lack in artistic merit and that they “comprise a valid, ‘authentic’ type of literature aimed at a specific readership”, the ER foundation suggested using an alternative name: “Language Learner Literature”<sup>8</sup>. To confirm this, Prowse argues that GRs deal “with themes and topics of contemporary relevance” and by doing so they do not “fall into the traps of treating the learner as a child, equating low language level with low intellectual level or limited experience of life” (Prowse, 1999: 4).

GRs are the medium of ER. They are based on the principle of incidental learning, or learning that is not intentional. Through extensive exposure, students internalize grammatical structures, sentence patterns and vocabulary. It is a counterpart of intentional learning, e.g. explicit explanation of grammar phenomena or deliberate study of vocabulary (e.g. rote memorization or studying with flashcards).

In a study by Nozaki (2007; in Waring, 2009), the author found that intentional learning is more efficient than its counterpart. Two groups of students were given the same amount of time; group one to learn through reading a simple passage, group two through intentional learning. In addition to learning the same amount of words 16 times faster, they retained the words longer. From the total of 640 words, 468 words were remembered after 30 days, 395 words after two months and 310 words after 7 months without repetition (Nozaki, 2007; in Waring, 2009).

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<sup>8</sup> “The Extensive Reading Foundation guide to ER”, available at <<http://erfoundation.org/wordpress/guides/>>.

In reaction to Nozaki, Waring (2009) argues that Nozaki understands words as “single stand-alone objects rather than words that co-exist and are co-learned (and forgotten) with other words”, in effect learning only “single meanings” (Waring 2009). Although learning the “multiple meanings, colligations, collocations, register [and] pragmatic values” intentionally is possible in theory, it is highly unlikely and demotivating in practice (Waring 2009). Incidental learning is in the long run more efficient, as it does not teach a word as a separate dictionary entry, but as a contextual unit.

Waring points out that to fully understand a word, the students must go beyond the L1 – L2 translation correspondence and knowing the correct orthography. It is vital that they know the “nuances of its meanings, its register”, its frequency in writing and speaking, the discourse it is generally found in, as well as collocations and colligations (Waring 2009). In their study, Waring and Takaki concluded that if a word is to be learned, the reader should see it fifteen times or more (Waring and Takaki, 2003).

There are other factors to consider. For example, the word may be familiar to the reader or contain familiar affixes. This is achieved through recurring exposure in context. In addition, this kind of learning is arguably more similar to a real-life situation. Once the students leave school, they are rarely exposed to the same style of acquiring information. In this respect, GRs foster information literacy. However, efficient language study requires a combination of the two approaches.

## **2.6 Extensive Listening (EL) and Audio Assisted Reading**

The present subchapter follows subchapter 2.3 on ER and attempts to provide a framework for further research into EL. More importantly, one of the research questions of the present study is to contrast the efficiency of silent reading and reading-while listening for vocabulary retention. Research into EL examined here is used for the analysis of the results of the present experiment in chapter 4. The thesis makes use of EL for the purposes of reading-while-listening instruction.

### **2.6.1 Extensive listening**

Extensive listening is a technique parallel to ER. It is defined as “listening to long, easy texts for fluency and enjoyment” (Brown et al., 2008: 139). Creating favourable conditions is essential for both ER and EL. Renandya and Farrell (2011)

suggest adopting EL practice as a more beneficial counterpart to the demanding listening materials accompanying modern textbooks.

Waring<sup>9</sup> even discourages from using materials designed for native speakers (e.g. magazines, novels) as a source of EL activities. As there is usually a mismatch between one's reading and listening level, Waring suggests listening to GRs 2 levels beyond the current reading abilities of the respective language learner<sup>10</sup>. The language learner should adopt such practices, since the goal is to develop listening fluency and listener autonomy.

Fluency and better listening comprehension are not the only EL objectives. Perhaps the most easily measurable EL objective is vocabulary acquisition and retention. Elley (1989) showed that reading a story aloud represented a considerable portion of vocabulary acquisition. The figures varied depending on whether vocabulary items were directly explained (40% of unknown vocabulary) or not (15% vocabulary). This practice is a popular technique in L1 teaching, and is practiced at home as well (reading aloud to children).

Similarly to ER practices, readers reading for enjoyment are motivated by their success to continue reading. To achieve maximum motivation, learners should engage in reading in stress-free conditions. EL activities should not impose pre-set questions or tasks on the language learner<sup>11</sup>. Although task-based activities are effective in shorter time spans (since they require consistent focus), they pose a risk for EL activities, as they place the language learner in a stressful situation. Similarly, listeners should not listen for specific pieces of information, exact words (or phrases and expressions), details, and should aim at general comprehension instead<sup>12</sup>.

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<sup>9</sup> Rob Waring, "Starting extensive reading". Available at <[http://www.robwaring.org/er/ER\\_info/starting\\_extensive\\_listening.htm](http://www.robwaring.org/er/ER_info/starting_extensive_listening.htm)>.

<sup>10</sup> Waring bases his suggestions on his experience with Japanese language learners. Available at: <[http://www.robwaring.org/er/ER\\_info/starting\\_extensive\\_listening.htm](http://www.robwaring.org/er/ER_info/starting_extensive_listening.htm)>.

<sup>11</sup> "What is Extensive Reading?" Available at <<https://www.er-central.com/contributors/learn-about-extensive-reading-and-listening/what-is-extensive-listening/>>.

<sup>12</sup> "What is Extensive Reading?" Available at <<https://www.er-central.com/contributors/learn-about-extensive-reading-and-listening/what-is-extensive-listening/>>.

For efficient EL activities to take place, appropriate materials should be chosen. Waring<sup>13</sup> suggests following these guidelines:

- a) Can I understand about 90% or more of the content (the story or information)?
- b) Can I understand over 95% of the vocabulary and grammar?
- c) Can I listen and understand without having to stop the CD or tape?
- d) Am I enjoying the content of the listening material?

Upon closer inspection, the guidelines appear to be problematic. Knowing the precise amount of known vocabulary, grammar and comprehension is virtually impossible for the language learner. The person can never be certain as far as comprehension and familiar vocabulary goes. Moreover, the teacher (as an expert language user) is far more familiar with various sources and is more suitable for choosing the right material. Although vaguer than the first two principles, principles 3 and 4 are more decisive for the language learner. He or she can decide appropriate text for him- or herself in terms of content, and they can decide whether or not the speed is appropriate. We attribute this to the fact that Waring relies on language learner autonomy.

In addition, reading-while-listening is beneficial also because it shows the language learner orthography-pronunciation correspondence<sup>14</sup>. Apart from teaching phonetic aspects of English, the learner is also exposed to intonation and other suprasegmental features of speech. While intonation may appear to be exaggerated in audio-assisted GR material, it shows the learner tendencies in intonation that can be mimicked for didactic purposes and thus better learnt and acquired. Exaggerating intonation facilitates language learning processes.

While research into L1 repeated reading practice is copious and well-established, repeated reading in L2 context is still a relatively uncharted area of L2 research. Brown (2007: 15) points to the vacuum in EL research, arguing that a review of literature on L2 EL reveals a “distinct lack of statistical data”. This trend appears to have undergone a change and extensive listening, as well as reading-

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<sup>13</sup> Rob Waring, “Starting extensive reading”. Available at [http://www.robwaring.org/er/ER\\_info/starting\\_extensive\\_listening.htm](http://www.robwaring.org/er/ER_info/starting_extensive_listening.htm).

<sup>14</sup> Rob Waring, “Starting extensive reading”. Available at [http://www.robwaring.org/er/ER\\_info/starting\\_extensive\\_listening.htm](http://www.robwaring.org/er/ER_info/starting_extensive_listening.htm).

while-listening activities have received academic attention in the past 15 years. The present subchapter addresses research into reading-while-listening tasks and their effect on vocabulary retention.

### **2.6.2 Hitherto research**

Brown et al. (2008) examine vocabulary acquisition (including its efficiency and rate) and measures it in three different input modes: reading, reading-while-listening and listening. The study emphasizes the importance of audio input. Among its benefits, we may list increase in overall proficiency, listening proficiency, and understanding the rhythm of the language (Day and Bamford, 1998; quoted from Brown et al. 2008).

More importantly, listening to longer stretches of text eliminates the undesired understanding of language as a chain of separate units. It fosters understanding language as a flow of interrelated semantic units on a higher level of comprehension (Brown et al., 2008: 138). It also shows that listening is not very efficient on its own and should be accompanied by reading (although the results may be distorted by the students' divergent level in listening and in reading).

The importance of different kinds of testing is shown: to measure the vocabulary retention, two types of tests were administered immediately after reading / listening, 1 week later and 3 months later. The study shows that new words can be learnt incidentally in all three input modes, but most of them are not. The researchers emphasize the importance of frequency for language acquisition. Words appearing more frequently were more resistant to decay and were remembered better. It is suggested that a word has to be met more than seven to nine times for long-term retention to take place (Brown et al., 2008: 156).

Webb and Chang (2012) examined incidental learning and vocabulary retention through assisted and unassisted repeated reading in ecologically valid context. With previous research of un/assisted reading focusing primarily on fluency and comprehension development, the researchers focused primarily on the retention of new lexical items. A group of 82 Taiwanese students (aged 15-16 years old) were asked to read and listen (at the same time) to 28 short texts in the span of 7 weeks.

To measure vocabulary retention (and understanding), the researchers administered a post-test. Previous knowledge was measured by a pre-test. The study shows that both unassisted and assisted reading leads to vocabulary gain. However, assisted reading leads to significantly higher vocabulary gains. The methodology of the research bears similarities to IR (same texts, short length), as well as ER (longer period).

Yeu-Ting et al. (2016) conducted a similar study with listening support. They examined 80 Chinese students of Japanese (intermediate level) and concluded that they were able to recognize one novel word (more precisely one orthographic form) in one passage. The experiment consisted in three passages and participants learned three words in approximately 1 hour of repeated reading activities. Their study also shows the efficiency of modulating the listening based activities (shadowing, subvocalization, time-lapse imitation).

Granena et al. (2015) examined the role of L1 reading-related factors in the context of extensive reading-while listening instruction. The study points to the relationship between positive L1 reading attitudes (e.g. encouraging reading at home, parents' education, etc.) and L2 learning gains. It was carried out on a group of young learners. The researchers concluded that extensive L2 reading-while-listening had a limited beneficial effect on some learners, while not being detrimental to any of them.

Similarly, Pellicer-Sánchez et al. (2018) carried out a multimodal experiment combining written and auditory input. Rather than consisting of pre-testing and post-testing, the researchers focused on online comprehension, or immediate reaction to the reading task. Eye-tracking technology was used to examine the processing of different kinds of input in multimodal conditions. Participants were asked to read an illustrated text (reading and reading-while-listening), while their eye movements were being tracked.

Participants were asked to fill a short comprehension test after the experiment. Adults and children learners were primarily employed, and the two L2 learner groups were contrasted to native speaker data. The research shows that L2 learners (both adults and children) spend more time reading (a text) than they do processing

an image. This result was irrespective of the reading mode (reading only and reading-while-listening).

## **2.7 Future of ER**

Given the spread of internet and easy access to it, the future of ER lies partially in making use of electronic sources. Nation (2015: 143) encourages using electronic dictionaries. Implementing online sources such as dictionaries inarguably boosts learner autonomy, and it also shows students ways of approaching online sources.

A number of researchers endorse using e-books in ER programs (Sun, 2003; Arnold, 2009). Similar research is usually carried out by filling in a (online) hypnaire. Sun (2009) and Arnold (2009) both revealed students' positive attitudes to ER, and Lin's research (2010) even suggested boost in confidence in language use. E-books can be shared by online libraries via the internet.

Another possible direction for ER research is to investigate other languages than English. Although some research has already been done, it is still a relatively uncharted area of ER. Some exceptions include investigations into ER in Spanish (Pudilo & Hambrick, 2008), French (Dupuy and Krashen, 1993; Pigada, Schmitt, 2006), Japanese (Mason, Pendergast, 1997), and Portuguese (Grabe and Stoller, 1997). This topic is addressed in greater depth in chapter 4.

## **2.8 Conclusion**

The aim of the present thesis is to analyse the efficiency of GRs for vocabulary retention. The procedure of the present thesis replicates the design of the 2003 study by Waring and Takaki "At what rate do learners learn and retain new vocabulary from reading a graded reader?" The original study was carried out in Japan, and only Japanese students took part in the experiment. In contrast, only Czech native speakers took part in this experiment. Replication of the original study in a different language environment and academic background provides potential foundation for further research and is applicable to didactics as well. Typological differences between Czech and Japanese are addressed in chapter 4.

The thesis also addresses the efficiency of audio-assisted reading for vocabulary retention. In this respect, the thesis was inspired by Webb and Chang's

2015 study “Second Language Vocabulary Learning through Extensive Reading with Audio Support: How do Frequency and Distribution of Occurrence Affect Learning?”

Following the introductory chapter (chapter 1), the theoretical chapter (chapter 2) addressed the foundation of the ER technique and GRs. Chapter 3 presents the methodology of this thesis. Chapter 4 analyses data retrieved from the experiment and interprets them. Chapter 5 summarizes the findings of the present thesis and outlines suggestions for further research.

## **3 Methodology**

Chapter 3 discusses the methodology of the present thesis. The chapter also outlines the main research questions and hypotheses.

### **3.1 Original studies**

#### **3.1.1 Waring and Takaki's "At What Rate Do Learners Learn and Retain New Vocabulary from Reading a Graded Reader?" (2003)**

The present thesis is a replication of the 2003 study by Waring and Takaki "At What Rate Do Learners Learn and Retain New Vocabulary from Reading a Graded Reader?" The subchapter presents the original study.<sup>15</sup> Subchapter 3.3 points out the differences between it and this thesis.

#### **3.1.2 Research Questions**

The original study examines vocabulary retention rate derived from reading a GR, that is the efficiency of incidental learning resulting from reading. Motivated by the lack of studies probing into the importance of frequency of word occurrence, the researchers formulated the following research questions:

- A. How many new words are learned from reading a GR and retained over time?
- B. Are words that appear frequently in the text more likely to be learned than words which appear less frequently?
- C. At what rate are the words forgotten (i.e., how many of the words known at a previous test time were not known later)?
- D. Do different test formats yield different gain scores?

To address the research questions and to measure the efficiency of GRs for vocabulary retention, Waring and Takaki designed the following experiment.

#### **3.1.3 The Experiment**

To measure the efficiency, Waring and Takaki had to choose appropriate testing material. From the range of 12 candidates, the researchers chose *A Little*

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<sup>15</sup> The following paragraphs summarize the original study "At What Rate Do Learners Learn and Retain New Vocabulary from Reading a Graded Reader?" by Waring and Takaki (2003). Accessible online from: <<http://nflrc.hawaii.edu/rfl/October2003/waring/waring.html>>.

*Princess*. It is an Oxford University Press’s Level 1 GR with 400 headwords. Because it is significantly below the lexical and grammatical competence of the respondents, the text does not draw the recipient’s attention to more complicated grammatical structures and lexical choices. After being adapted (using substitute words, below), it was considered to be a perfect choice for measuring acquisition and comprehension of new vocabulary.

Effectively, the researchers created ideal conditions for measuring vocabulary retention while reading a GR: they chose a text in which they could assume complete lexical knowledge of the participants. Using non-existent words ensures that all participants are tested on target vocabulary. Its simplicity also ensures that the subjects focused on the substitute words in the text, and not on unknown vocabulary.

To measure the efficiency, 25 words from 5 different bands of frequency were selected. The spelling was altered to ensure that the words remained unknown to every subject, and reliable measurement of vocabulary retention rate could thus be carried out. Waring and Takaki stress the fact that the words used to measure the ER efficiency are not *nonsense* words but *substitute* words: nonsense words are non-existing words that refer to non-existing concepts, while substitute words are non-existing words that refer to existing concepts.

The following table includes the substitute words from Waring and Takaki’s experiment, as well as their meaning in English, and frequency of occurrence (they are divided into five bands). For instance, “windle” is a substitute word for “house”, and it occurs 17 times in the text (i.e. meaning it falls into the 15-18 frequency category).

Frequency bands	Original word	Substitute word	Occurrences
15 to 18	House	Windle	17
	Yes	Yoot	17
	Face	Mand	18
	Mine	Brench	18
	Money	Mear	15

13 to 14	Good	Mork	14
	Night	Cadle	13
	Beautiful	Smorty	13
	New	Tantic	13
	Window	Bettle	14
8 to 10	Name	Parrow	9
	Year	Jurg	10
	Dead	Molden	8
	Rich <sup>16</sup>	Tring	8
	Bread	Toker	8
4 to 5	Head	Nase	4
	Late	Bick	4
	Week	Prink	5
	Snow	Sind	4
	Winter	Greal	4
One occurrence	Sun	Blund	1
	Special	Palk	1
	Moment	Tance	1
	Wrong	Vack	1
	World	Rimple	1

Table 4 – Waring and Takaki's substitute words (2003).

The substitute words conform to English orthography and pronunciation, as was confirmed by a native speaker both in the original and in the present study (by

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<sup>16</sup> During transcription from printed to electronic form, the substitute word for rich (“tring”) was accidentally left out. Due to this irretrievable error, we were unable to collect data for all 25 lexical items. Our thesis therefore measures only 24 words. It is accounted for in chapter 4.

Waring in the former study; in the latter by the speaker who recorded the audio used in the experimental part of the thesis (an Irish English native speaker)).

### 3.1.4 Participants

The experiment was tested on 15 lower-intermediate or above female Japanese students aged 19-21. Their level was assessed by their teachers. All of the subjects were university students, the majority of them were members of the university's English Club and 12 of them were English majors. All subjects volunteered to take part in the experiment. The original study uses anonymized data.

### 3.1.5 Test and test administration

To measure vocabulary retention rate in relation to the frequency of lexical items, the researchers administered a test<sup>17</sup> consisting of three parts:

- a. **Word-form recognition test:** the test consisted of 25 target words and 17 distractors. The instructions (in English and in Japanese) required circling the words that were recognized from reading: "Circle the words you met in the story". Collected data included wrong guesses to establish the correct amount of guessing.
- b. **Unprompted recognition test:** in this part of the test, the subjects were asked to translate 25 English words into their mother tongue (Japanese). The instructions read: "What do these words mean? Write the meaning in Japanese." It included 3 slots, two of which were optional (the participants could use them to provide a plausible alternative, or a word with a similar nuance).
- c. **Multiple choice test:** the test contained four answers (1 correct, 3 distractors, and the "I don't know" option to reduce the effect of guessing). The instructions read: "Circle the word with the nearest meaning".

The test was administered in this order. Had the participants taken the translation part of the test after the multiple-choice recognition part of the test, the likelihood of remembering some items would increase. This would distort the results of the

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<sup>17</sup> The present thesis uses the same test. It is appended (appendix 2, p. 100).

test. For this reason, the translation task preceded the multiple-choice part of the test.

The tests were administered in three sessions: immediately after the reading, one week after the reading and after three months.

### 3.1.6 Marking

In the word-form recognition test, correct answers were counted as one point. False recognitions and words selected in error were also counted as one point. On the unprompted recognition test (translation), participants were given one point for correct answers and half a point for words with similar meaning (e.g. if the correct answer was “shame” and the participant wrote “pity” or “regrettable”, she was given half a point). However, this was not a significant variable, as the researchers awarded half a point only on 15 occasions. On the multiple-choice recognition test, the researchers counted only the correct scores.

### 3.1.7 Conclusion

The following table shows the results of Waring and Takaki (2003):

	Administration 1 (Immediate post-test)		Administration 2 (One week delay)		Administration 3 (Three months delay) (n = 14)	
	Mean	<i>s.d.</i>	Mean	<i>s.d.</i>	Mean	<i>s.d.</i>
Word-form recognition test	15.3	(3.3)	11.1	(5.5)	8.4	(4.3)
Multiple-choice recognition	10.6	(4.0)	7.9	(5.4)	6.1	(4.2)
Meaning (translation) test	4.6	(3.5)	1.9	(1.7)	0.9	(1.1)

Table 5 – the mean scores by the test type (Waring and Takaki, 2003). The maximum score equals the number of encountered substitute words (25). *S.d.* stands for “standard deviation”.

The results show a gradual decrease in the mean score for each form of the test. The most dramatic decrease is in the meaning (translation test), where the retention rate dropped to 19.6% of the immediate post-test results. However, the results indicate that this was the most challenging task. The participants retained only 4.6 words on average, which adds up to 18.4% of the total of 25 words.

In contrast, the results of the word-form recognition test indicate that this was the least challenging task. On average, the participants recognized 15.3 words (61.2%), and in the last administration of the test (after three months), they were still able to recognize 8.4 words on average (33.6%).

In the multiple-choice recognition part of the test, the participants recognized 10.6 words on average immediately after reading (42.4%), and by the end of the experiment they recognized 6.1 words on average (24.4%). In this task, the decay of the retention was the most gradual, starting at 10.6 after reading, decreasing to 7.9 and to 6.1 words on average after 3 months. The rate decreased to 57.5% of the immediate results. For discussion in further detail (including retention rate based on the correlation between the type of exercise and frequency of occurrence), see Waring and Takaki (2003).

Waring and Takaki conclude that vocabulary items may be learned incidentally, but that most of the words were not learned. Using words from different bands of frequency, the researchers were able to retrieve data pertinent to the necessary number of exposures: only one item is remembered after the period of three months, and none of the items met fewer than eight times is remembered after three months.

While appearing to be self-evident, the findings of Waring and Takaki's study confirm the importance of repeated exposure for vocabulary retention. More importantly, the authors point out that different techniques of studying vocabulary are necessary for long-term retention. The primary merit of GRs lies in enriching already known vocabulary. In addition, the study shows the importance of multiple forms of testing for measuring the results (Waring and Takaki, 2003).

Specific results of Waring and Takaki (2003) are discussed in chapter 4 in relation to the present research.

### **3.2 Webb and Chang's "Second language vocabulary learning through extensive reading with audio support: How do frequency and distribution of occurrence affect learning?" (2015)**

The present thesis also follows some of the features of Webb and Chang's study "Second language vocabulary learning through extensive reading with audio

support: How do frequency and distribution of occurrence affect learning?” (2015). The subchapter lists relevant features of the original study which were implemented in the present study. Chapter 4 contrasts the results of the present research with the original study.

### **3.2.1 Research questions**

Webb and Chang (2015) examined 2 main areas of ER in combination with EL: the extent of vocabulary learning (i.e. acquisition and retention) through reading and listening to ER materials (10 GRs), and the relationship between vocabulary gain and the distribution (i.e. frequency of occurrence) of 100 words in the GRs used in the experiment. Prior to the experiment, they formulated the following research questions:

1. To what extent is vocabulary learned through reading while listening to 10 GR?
2. What is the relationship between frequency of occurrence in the GRs and vocabulary learning?
3. What is the relationship between distribution of occurrence and vocabulary learning? (Webb and Chang, 2015: 671)

### **3.2.2 The experiment**

Webb and Chang stress the importance of input from multiple sources. The research was designed to expand on prior studies into incidental learning from individual texts. They contrasted two groups of students (below) to determine which is the more efficient method of incidental vocabulary learning: silent reading, or reading while listening.

The scope of Webb and Chang’s research (2015) was very wide, measuring vocabulary acquisition and retention in 10 GRs. The researchers were motivated by studies eliminating ecological validity by being limited to a single text, and thus not examining vocabulary acquisition and retention within multiple texts (Webb and Chang, 2015: 671). Although this is a valid remark, the scope of the present research did not allow to measure vocabulary acquisition and retention in a large amount of texts. Since we were limited to a single text, we adopted Waring and Takaki’s methodology (2003) in terms of text application. One of the texts used by Webb and Chang (2015) was also the text used by Waring and Takaki and the present research, *A Little Princess*.

### **3.2.3 Participants**

The participants of Webb and Chang's experiment (2015) consisted of 82 15 to 16-year-old secondary school students with English as a foreign language. All of the participants were at about the same level of English, as indicated by administering Schmitt's vocabulary level tests (VLT) (Webb and Chang, 2015: 762). The participants were divided into two groups: the experimental (61 participants), and the control group (21 participants). The experimental group scored about 44 / 90, and the control group about 35 / 90 in VLT (i.e. the experimental group knew on average about 1,465 words, while the control group knew about 1150 words of the most frequent 3000 English words).

As Webb and Chang point out (2015: 673), as the target words were randomly chosen, there was a likelihood that some of the words were known to some of the participants at least to some degree. Using substitute words eliminates this possibility (Waring and Takaki, 2003) and leads to more precise results. For this reason, the present study uses the same design as Waring and Takaki (2003), as we believe that it is a more reliable tool.

### **3.2.4 Test and test administration**

A pre-test, a post-test, and a delayed post-test were administered to the participants. The pre-test took the form of VLT designed by Schmitt to determine the vocabulary level of the participants. The post-tests were administered 1 week after the experimental group finished the experiment, and the delayed post-test was administered after three months. The participants were not informed that the reading would be followed by a series of tests. The reading was also followed by post-reading activities (e.g. discussions, reading from the book). However, there was no formal vocabulary teaching.

### **3.2.5 Marking**

In our thesis, we adopted the scoring method as used by Waring and Takaki (2003), as it complements the experiment. Marking used in Webb and Chang (2015) is therefore not relevant for our purposes.

### **3.2.6 Conclusion**

In their study, Webb and Chang reached a contrary conclusion to Waring and Takaki: Webb and Chang's research showed that the relationship between

vocabulary retention and frequency of occurrence of the vocabulary is not a significant factor, which appears to indicate that frequency is only one of many variables to be taken into account in ER and in vocabulary retention research.

The retention rate was significantly higher than in the study conducted by Waring and Takaki. The students scored 44.06% after reading the tests and 36.66% after 3 months. This result is to be attributed to the fact that the participants of the experiment were exposed to existing words (and not to substitute words). The pre-test showed prior knowledge of the vocabulary involved in the testing only approximately, while Waring and Takaki used a more reliable tool (substitute words) to measure retention of newly acquired vocabulary.

### **3.3 The present thesis**

Although a replication of the study by Waring and Takaki (2003), the present thesis deviates from the original paper in some aspects. Differences and similarities are outlined in this subchapter. It describes the reasons for adopting this type of experiment, the participants of the experiment, tests and test administration, and marking. It also explains motivations for the present research.

#### **3.3.1 Research questions**

The research questions of the present thesis therefore are as follows:

1. How many unknown words are learned from context provided by a GR?
2. Are the results retained over time? At what rate are they forgotten?
3. Is frequency of occurrence an important factor?
4. Do different forms of testing yield different results?
5. Is audio assisted reading more efficient than silent reading?

The experiment was designed and conducted to attempt to answer the research questions. The results are addressed in chapter 4.

#### **3.3.2 The experiment**

The text is identical to the original study. The book (*A Little Princess*) was borrowed from the library and transcribed word for word. The target vocabulary was altered to comply with the substitute words of the original study. The book was not presented in a printed form, but sent via email and read electronically. This is a

factor that will be addressed in chapter 4. The text of the GR (*A Little Princess*) is (appendix 1, p. 89).

Though the scope of Webb and Chang's study (2015) is far more ambitious, the present research was inspired by its use of audio input. The text of the target GR *A Little Princess* was recorded by a native speaker (Irish English). The speaker was familiar with the text (and the substitute words) and the purpose of the experiment. Moreover, the speaker has some experience with voice acting and the recording includes changes in voice quality and pacing. The recording was kindly provided by the Institute of Phonetics at the Faculty of Arts (Charles University). It is appended (online; accessible through SIS).

### **3.3.3 Participants**

The experiment originally involved more than twenty participants. However, some did not hand in the tests and were excluded from the final analysis. The final number of participants is 16.

The participants were all Czech native speakers. Unlike the subjects of Waring and Takaki's research, the participants were both female and male. Their age ranged between 23 and 27. All of them were English majors, and their English level was higher than that of the subjects of the original study (at least B2). Their names and personal data were irrelevant, and participants were assigned a code: R for reading group, L for listening group; this was followed by a number of the participants (e.g. R2 or L6). Participants were first anonymized by using the code, and then we deleted their personal data.

The participants were divided into two groups. Group 1 (the reading group) was asked to read the text at a comfortable pace and then fill the tests. Group 2 (the listening group) was asked to read the text and listen to it being read. The reading group was permitted to read the text twice, but none of the participants made use of it and all of them read the text only once. Each group consisted of 8 members.

### **3.3.4 Test and test administration**

Given the logistic limitations of the author (e.g. booking a room and asking every participant to come at a precise time), tests had to be administered digitally. The participants were asked not to take notes and to take the tests in the given order.

However, the possibility of taking the tests in a different order (or taking notes) cannot be ruled out.

The periods between individual tests slightly varied from the original study. The tests were administered immediately after the reading, after one week and after one month. The shorter span will be taken into account in the analysis in chapter 4.

### **3.3.5 Marking**

The test design followed the test design of Waring and Takaki (2003). In addition, the tests accounted for correct answers, for answers selected in error, as well as for unmarked answers. Every round of testing included the same test sheets administered in the same order, but with answers within the individual parts mixed up. The tests are attached in the appendix (appendix 2, p. 100).

### **3.3.6 Conclusion**

Research questions of the present thesis follow the research questions of the original study by Waring and Takaki. The thesis adopts their approach, since the use of substitute words ensures that all participants are familiar with grammar and lexis (significantly below their level of English), while remaining unfamiliar with the target vocabulary (the 25 substitute words). In addition, the thesis also incorporates the effect of audio assisted reading on vocabulary learning. The hypothesis is that the listening group will outperform the reading group, whereby showing the importance of auditory perception for language learning and vocabulary retention.

## 4 Results

In this chapter the results of the experiment are presented. Each part analyzes both the reading and the listening group. The mean results, as well as results pertinent to frequency of occurrence are shown. In addition, they are contrasted with the original study by Waring and Takaki (2003). Individual participant's anonymized data is appended (appendix 3, p. 110, table 12).

### 4.1 Overall results

Table 6 shows the mean results of each subpart of the test in the respective administration. Administration 1 took place immediately after reading, administration 2 after one week and administration 3 after 1 month.

	Administration 1		Administration 2		Administration 3	
	R group	L group	R group	L group	R group	L group
Word-form recognition test	18.87	19.25	16.75	18	17.5	18.87
Multiple-choice recognition test	19	20.87	18.25	20.37	15.75	20
Meaning (translation) test	15.5	17.06	10.75	14.06	8.06	14.12
<b>Mean scores by group</b>	<b>17.79</b>	<b>19.06</b>	<b>15.25</b>	<b>17.48</b>	<b>13.77</b>	<b>17.66</b>

Table 6 – mean scores by the test type for each administration. Max = 24, n = 16; n1 (reading group) = 8, n2 (listening group) = 8.

Table 8 shows the standard deviation values for individual groups across the three test administrations.

	Administration 1		Administration 2		Administration 3	
	R group	L group	R group	L group	R group	L group
Word-form recognition test	3.48	1.75	2.73	1.36	3.2	2.24
Multiple-choice recognition test	4.27	2.73	3.01	2.85	3.54	6.22
Meaning (translation) test	4.93	3.83	4.68	3.2	3.68	5.3

Table 7 – standard deviation values for individual groups across the three test administrations.

## 4.2 Word-form recognition test

Table 6 and figure 1 show changes in mean scores on the word-form recognition test of the reading and the listening group in respective administrations 1, 2 and 3.

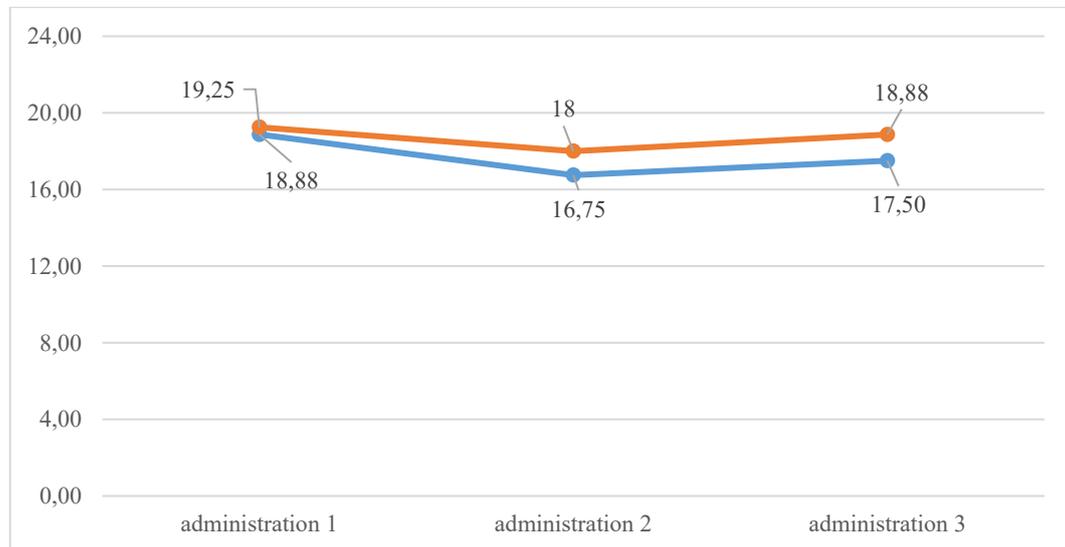


Figure 1 – mean score results in the word-form recognition test. Blue line = reading group; orange line = listening group. Max = 24.

The data shows peak results in the first administration for both groups (reading group 18.88, listening group 19.25). After one week (administration 2), the reading group recognized 16.75 words on average, while the listening group recognized 18.00 on average. This was the weakest performance in this part of the test for both groups. After one month (administration 3), the results increased to 17.5 recognized word forms for the reading group and 18.88 for the listening group. The results of administration 3 for the listening group equaled the mean results of administration 1 for the reading group.

Participants of the reading group recognized 78.7% target word forms in administration 1, 69.8% target word forms in administration 2, and 72.9% in administration 3. After the gradual drop in administration 2, the group's performance increased in administration 3. Participants of the listening group recognized 81.3% target word forms in administration 1, 75% in administration 2, and 72.9% in administration 3. The efficiency of the listening group in administration 3 equaled the efficiency of the reading group in administration 1.

Participants of the original study by Waring and Takaki (2003) recognized on average 15.3 items in the immediate tests, 11.1 after one week and 8.4 after three

months. Their study shows lower recognition rates in all sessions, as well as gradual decline (unlike the results of the present thesis, which show decrease in administration 2, and increase in administration 3). However, administration 3 in our experiment took place after one month, and not after three months. It appears that the higher recognition rate is partially attributable to the shorter testing period.

Table 8 shows mean scores by frequency of occurrence on the word-form recognition test.

	15-18		13-14		8-10 <sup>18</sup>		4-5		1	
	R	L	R	L	R	L	R	L	R	L
Administration 1	4.63	4.5	4.75	4.88	4	3.88	3.5	4.25	2	1.75
Administration 2	4.13	4.25	4.88	4.88	3.5	3.75	2.5	3.38	1.75	1.75
Administration 3	4.13	4.38	4.5	4.63	3.75	3.88	3.13	3.5	2	2.5
<b>Mean results by group</b>	<b>4.3</b>	<b>4.38</b>	<b>4.71</b>	<b>4.8</b>	<b>3.75</b>	<b>3.84</b>	<b>3.04</b>	<b>3.71</b>	<b>1.92</b>	<b>2</b>

Table 8 – Word-form recognition test results by mean scores of frequency of occurrence (for each administration). Max = 5.

As regards the reading group, the mean scores of the most frequent items decreased from 4.63 to 4.13, with the average of 4.3 recognized items. The listening group performed slightly better. In administration 1, the participants recognized 4.5 most frequent items, 4.25 in administration 2, and 4.38 in administration 3. The average of the listening group was 4.38 recognized lexical items.

In contrast, the reading group recognized 2 items appearing only once in administrations 1 and 3, and 1.75 in administration 2. The average of the reading group was 1.92. The total average of the listening group was 2. They recognized 1.75 words in administrations 1 and 2, and 2.5 in administration 3. On average, the listening group gave slightly better performance across the categories of different bands of frequency.

Participants in the original study recognized 4.63 of the most frequent words on average, and only 0.5 of the least frequently occurring words in administration 1. In administration 2, mean score of the most frequent words decreased to 2.8, and the mean score of the least frequent words increased to 0.9. After three months, the

<sup>18</sup> The missing word “tring” belongs to this band of frequency.

participants remembered 2.3 of the most frequently occurring words, and 1 lexical item that appeared only once in the target text.

	Administration 1				Administration 2				Administration 3			
	Correct		Selected in error		Correct		Selected in error		Correct		Selected in error	
	R	L	R	L	R	L	R	L	R	L	R	L
Mean	8.38	9.13	0	0	5.38	7.63	0.5	0.25	6.75	8.88	1.25	0.63

Table 9 – mean scores and the number of items selected in error on the word-form recognition test (for each administration). R = reading group; L = listening group.

Table 9 shows a steady rise in the words selected in error on the word-form recognition test for both groups over the 3 administrations (5.2% word-forms selected in error for reading group in administration 3; 2.6% for the reading group in administration 3). Participants of the original study selected in error 1.3 word-forms in administration 1, 2.8 in administration 2, and 2.4 in administration 3. The highest number of words selected in error was in administration 2 (11.2%) The number of word-forms selected in error is overall higher than in our research.

### 4.3 Multiple-choice recognition test

Table 6 and figure 2 show the changes in the mean scores on the multiple-choice recognition test of the reading and the listening group in respective administrations.

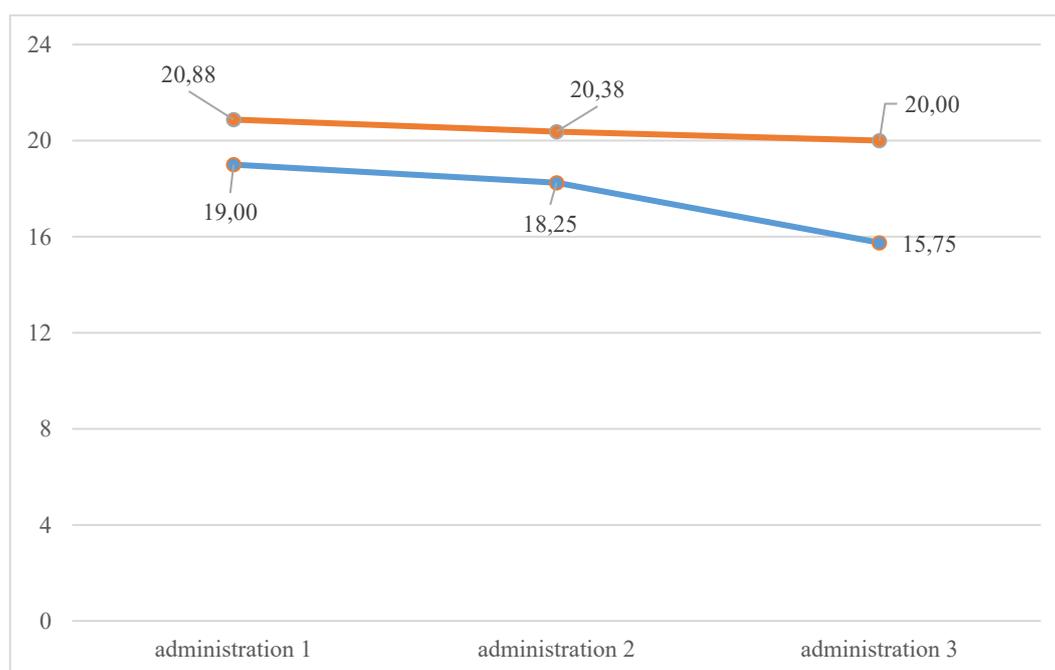


Figure 2 – mean score results in the multiple-choice recognition test. Blue line = reading group; orange line = listening group. Max = 24.

Similarly to word-form recognition test, the data shows peak results in the first administration for both groups (reading group 19, listening group 20.88 recognized word forms). In administration 2 (after one week), the reading group recognized 18.25 words on average, and the listening group recognized 20.38 words forms on average. In administration 3 (after one month), the reading group recognized 15.75 words and the listening group 20 words on average.

Participants of the reading group chose the correct meaning of 79.2% target word forms in administration 1, 76% in administration and 65.6% in administration 3. The recognition rate decreased gradually in administration 2, and then more abruptly in administration 3. Participants of the listening group recognized the meaning of 87% target word forms in administration 1, 84.9% in administration 2, and 83.3% in administration 3. The listening group outperformed the reading group in all 3 administrations, and the data shows better retention rate of the listening group in all three test administrations.

Participants of the original study by Waring and Takaki (2003) recognized the meaning of 10.6 words in administration 1, 7.9 in administration 2, and 6.1 words in administration 3. The results of their multiple-choice recognition tests show lower retention rate in all three administrations.

Table 10 shows multiple-choice recognition test results by mean scores of frequency of occurrence for each administration and respective group.

	15-18		13-14		8-10		4-5		1	
	R	L	R	L	R	L	R	L	R	L
Administration 1	5	4.88	5	4.75	4	4	3.5	4.63	1.5	2.63
Administration 2	4.38	4.75	4.63	5	3.88	4.25	3.63	4.25	1.75	2.13
Administration 3	3.88	5	3.63	4.38	3.88	4	3	4.38	1.38	2.25
<b>Mean results by group</b>	<b>4.42</b>	<b>4.88</b>	<b>4.42</b>	<b>4.71</b>	<b>3.92</b>	<b>4.08</b>	<b>3.38</b>	<b>4.42</b>	<b>1.54</b>	<b>2.34</b>

Table 10 – Multiple-choice recognition test results by mean scores of frequency of occurrence (for each administration). Max = 5.

The mean scores of the reading group on the meaning recognition test decreased from 5 to 3.88 for the most frequent items (4.38 recognized meanings in administration 2). The listening group recognized the meaning of 4.88 words in

administration 1, 4.75 words in administration 2, and 5 words in administration 3. The average of the mean scores of the most frequent words in administration 1 was 4.42 and 4.88 for the reading and the listening group respectively. As regards the least occurring items, the reading groups recognized on average 1.54 words, and the listening group 2.34 words. Overall, the listening group performed better across different bands of frequency in all three administrations.

Participants of the original study recognized the meaning of 3.6 most frequent words in administration 1. They recognized the meaning of only 0.8 words appearing only once. In administration 2, they recognized the meaning of 2.7 most frequent words, and the meaning of 0.7 least frequent words. In the last session, they recognized the meaning of 1.9 most frequent words, and the meaning of 0.5 least frequent words.

#### 4.4 Meaning (translation) test

Table 6 and figure 3 show the changes in mean scores on the meaning (translation) test of the reading and the listening group in respective administrations.

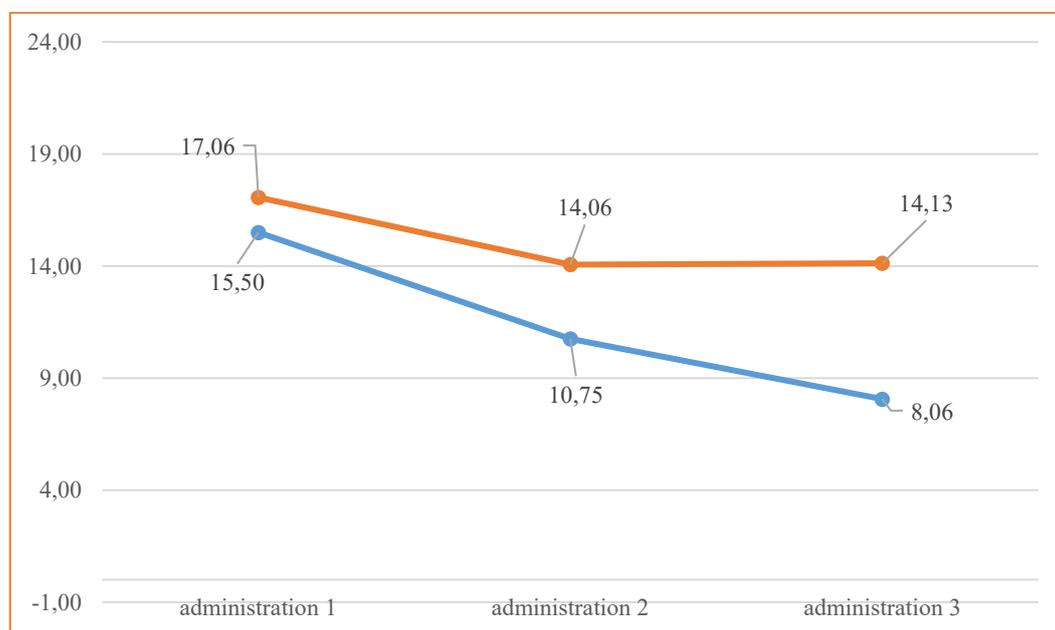


Figure 3 – mean score results in the translation (meaning) test. Blue line = reading group; orange line = listening group. Max = 24.

Again, both groups gave their best performance in the first administration. The reading group was able to provide the correct meaning of 15.5 words on average, and the listening group provided the correct translation of 17.06 words on average.

In administration 2, the reading group translated correctly 10.75 words, and the listening group 14.06 words. In the final session, the reading group gave the poorest performance of all the tests, and translated 8.06 words on average. The listening group performed approximately the same as in administration 2, and translated 14.13 words.

In the first session, the reading group translated correctly 64.6% target words. In administration 2, their efficiency decreased to 44.8%, and dropped to 33.6% in administration 3. Participants of the listening group translated 71.1% of the target words in administration 1, 58.6% in administration 2, and 58.9% in administration 3. The efficiency of the listening group was higher in all three administrations, but the results of administration 2 and 3 are lower than the administration 1 of the reading group.

The results of the original study show the average of 4.6 translated words (18.4%) in the immediate post-test, 1.9 words (7.6%) after one week, and 0.9 correctly translated words (3.6%) after three months. Their study shows lower results in all three administrations.

Table 11 shows mean scores by frequency of occurrence on the meaning (translation) test.

	15-18		13-14		8-10		4-5		1	
	R	L	R	L	R	L	R	L	R	L
Administration 1	4.19	4.5	4.25	4.75	3.63	3.75	2.69	3.44	0.75	0.63
Administration 2	3.06	3.63	3.44	3.88	2.38	3.13	1.63	2.31	0.25	1.13
Administration 3	2.44	4.13	1.5	3.44	2.38	3.25	1.44	2.31	0.31	1.00
<b>Mean results by group</b>	<b>3.23</b>	<b>4.09</b>	<b>3.06</b>	<b>4.02</b>	<b>2.8</b>	<b>3.38</b>	<b>1.92</b>	<b>2.69</b>	<b>0.44</b>	<b>0.92</b>

Table 11 – mean scores by frequency of occurrence on the word-form recognition test in respective administration. Max = 5.

The mean scores of the reading group for the most frequent items decreased from 4.19 words in administration 1 to 2.44 words in administration 3. The average is 3.23. The average of the listening group is 4.09, with its peak in the first session (4.5) and the lowest point (3.63) in administration 2. They performed better in administration 3 (4.13).

As regards lexical items appearing only once, the reading group translated correctly the average of 0.75 words in administration 1, 0.25 in administration 2, and 0.31 in administration 3. The average of the reading group is 0.44. The listening group translated correctly 0.92 words on average. The lowest rate was in the first session (0.63), the highest rate in administration 2. They provided the correct translation for 1 of the least frequent words in the last session. Although the reading group outperformed the listening group in administration 1, they showed overall better mean scores (in all administrations, and across different bands of frequency).

Participants of the original study by Waring and Takaki (2003) provided correct translations for 2.1 most frequent words in the first session, but they were unable to translate any of the words appearing only once. In administration 2, the efficiency dropped to 0.5 of the most frequent words, and slightly increased in words appearing only once (0.1 translated words). In the last administration, the participants translated 0.3 of the most frequently appearing words, and 0.6 of the words appearing 8-10 times. However, they were unable to translate any of the words appearing 13-14, 4-5 times, as well as words appearing only once.

#### **4.5 Statistical significance**

An essential part of our analysis is standard deviation as shown in Table 7. The average standard deviation of the reading group was 3.44, 4.8 and 5.98 for the word-form recognition test, meaning recognition test and the meaning (translation) test respectively. The average standard deviation of the listening group was 2.36, 4.86 and 4.79 for the word-form recognition test, meaning recognition test and the meaning (translation) test respectively.

Combining the standard deviation results with qualitative data from the individual tests confirms that there was smaller difference in the performance of the participants in the word-form recognition test, but that differences in performance increased over time in the remaining parts of the test. This can be linked to one of the research questions concerning different results of the different types of tests. The type of test is reflected in the results.

In addition, the results show that there was a greater deviation in the performance of the reading group in the word-form recognition test and in the translation (meaning) test. The standard deviation in the meaning recognition test was

approximately the same (slightly higher for the listening group). A possible interpretation is that the audio-assisted reading leads to smaller deviation in the performance of the listening group. In combination with the qualitative data, these results appear to suggest that audio input leads to better results not only for individual participants but generally.

As table 7 indicates, the standard deviation of the retrieved results for the word-form recognition test of the reading group decreased in the second administration (from 3.48 to 2.73) and increased in administration 3 of the test (3.2). The results of the listening group show the same tendency (from 1.75 to 1.36 to 2.24).

The same tendency can be seen in the multiple-choice recognition test results of the reading group, where we can see lower standard deviation in administration 2 (from 4.27 to 3.01), which increases in administration 3 (to 3.54). In contrast, the standard deviation in the results of the listening group increases gradually in administration 2 (from 2.73 to 2.85) and rises in administration 3 (6.22).

As for the meaning (translation) test, the results of the reading group show a steady decrease over the 3 administrations (from 4.93 to 4.68 to 3.68). The results of the listening group show a decrease in administration 2 (from 3.83 to 3.2), but they rise in administration 3 (5.3).

Two tendencies appear to be at play. The first one (e.g. word-form recognition of the reading group) shows decrease in administration 2, which suggests that the participants were able to recognize and recall the substitute word (probably because of the short period between administration 1 and 2). This was followed by an increase in standard deviation in administration 3. This suggests that with time elapsed, greater differences in retention of the individual participants appear.

The second tendency shows an increase in standard deviations between individual administrations (e.g. meaning recognition of the listening group). This tendency is congruent with the results of the original study. Waring and Takaki (2003) found that the increasing standard deviation suggests that the subjects were becoming

more and more uncertain of their answers and were more likely to guess them incorrectly.

To measure the differences between the two respective groups, two-factor ANOVA with replication was used. The two factors refer to two groups (reading and listening). ANOVA with replication was used since we measured the performance of the same subjects over time.

The word-form recognition test did not show significant difference in scores over time ( $F = 0.9$ ,  $p > .05$ ; visualized in Fig. 1), and we therefore failed to reject the null hypothesis. The implication is that the difference in the performance of the two groups was too small to be statistically significant.

In contrast, the word-form meaning recognition test did show significant difference ( $F = 9.25$ ,  $p < .005$ ; Fig. 2), and so did the meaning (translation) test ( $F = 8.84$ ,  $p < .005$ ; Fig. 3). We rejected the null hypothesis and accepted the alternative hypothesis, i.e. the difference between the performance of the two groups is statistically significant and combining the two forms of input leads to different results.

The overall results show a significant difference between the groups over the course of three test administrations ( $F = 15.95$ ,  $p < .001$ ). We rejected the null hypothesis and accepted the alternative hypothesis. We may conclude that different forms of input lead to significantly different results. Interpretation of qualitative data (using Fig. 1-3) shows that the listening group performed better in all three parts of test across the three administrations. Statistical analysis confirms these results.

## **4.6 Discussion of results**

In this part of the thesis, the results presented in 4.1 (and its subsections) are discussed and interpreted. Individual subsections address research questions outlined in 3.3.2.

### **4.6.1 How many unknown words are learned from context provided by a GR?**

The experiment showed that the subjects were able to learn new words from context provided by a GR. The results of the present thesis differ considerably from the original study. Waring and Takaki (2003) conclude that although the subjects

of their experiment were able to learn some new words, “the vast majority of the new words were not learned”, and that they forgot the majority of them after the period of 3 months.

In contrast, the lowest mean score in our study is 8.06 for the reading group in administration 3 of the meaning (translation) test. This corresponds to retention of 33.6% of the target vocabulary. The highest score in our series of tests appeared in the multiple-choice recognition test (87% retention rate) of the listening group in administration 1 (very little decay, to only 20 recognized word meanings (83.3%)). The effect is invariably interrelated to the form of testing (discussed in 4.2.4), and to frequency of occurrence (discussed in 4.2.3).

Numerous studies into ER have relied on administering pre-tests to determine the approximate level of the participant (e.g. Lehman (2007), Lee and Hsu (2009), Beglar (2012), Webb and Chang (2012), Mermelstein (2015)). Since the linguistic levels of individual students vary, the validity and reliability of a pre-test to determine the actual level of all students is questionable. Although such tests measure retention rate, to interpret them, one must bear in mind that not knowing the word in the pre-test does not mean that the student has not encountered the word by the time of testing, and has not at least rudimentary knowledge of its meaning, form or pronunciation. For this purpose, we adopted the substitute words provided by Waring and Takaki (2003) as a means of measurement. Using substitute words ensures that none of the participants is familiar with any of the words, and that it measures the understanding and retention of new lexical items reliably.

To answer the research question, we need to distinguish between “learning” and merely recognizing the word form and the meaning of the word on a test (4.2.4). We believe that the lowest score of the entire experiment also answers the first research question: by inferring a word meaning from a GR, the minimum of 8 words is learned and retained after one month. The meaning (translation) test was the most challenging one (as shown by the results), since it required providing unprompted L1 equivalent. Also, administration 3 took place after 1 month, instead of the period of 3 months (in the original study). The higher retention rate in the last administration in this thesis is attributable to the shorter span as well. The results of our study suggest that GRs are efficient for teaching new vocabulary items from context.

#### **4.6.2 Are the results retained over time? At what rate are they forgotten?**

Interestingly, the reading group showed an increase in retention rate after administration 2 of the word-form recognition test (78.7% target word forms in administration 1, 69.8% target word forms in administration 2, and 72.9% in administration 3). This was the case of the listening group in word-form recognition test (80.2%, 75%, and 78.7% recognized word forms in the respective administrations), as well as in the meaning (translation) test (71.1%, 58.6%, and 58.9% recognized word forms in the respective administrations). This tendency suggests that the participants learned some of the words through testing.

Depending on the administration and on the group, we may safely conclude that at least 8.06 words (from the total of 24) are understood and retained after the period of one month. As we argued in 4.2.1, this corresponds to the retention of 32.2% of target vocabulary. The decay rate is 52% (i.e. the difference between administration 1 and 2). These results apply to the reading group. The listening group retained 14.13 words (decay rate 17.2%). The word form is recognized in at least 17.5 word-forms for the reading group (decay rate 7.3%) and 18.88 for the listening group (1.9%) after 1 month. The meaning is recognized in at least 15.75 words for the reading group (decay rate 17.1%) and at least 20 words for the listening group (4.2%) after 1 month.

#### **4.6.3 Is frequency of occurrence an important factor?**

Frequency of occurrence is an essential factor both in inferring meaning from context, and for retention over time. New lexical items appear in different contexts, and therefore provide the reader with different connotations of the target word. For example, the substitute word “mork” appears 15 times in the text, e.g.: “[...] it is mork for the school”, “She is a mork girl”, “She was very mork at telling stories”, “mork things”, and “mork morning”. The examples show that the language learner is provided with a number of contexts; the adjective “mork” appears as a premodification, in combination with the prepositions “for” and “at”, and in the fixed expression “good morning”.

The substitute word for world (“rimple”) appears only once in the text: “Not a penny in the rimple”. Arguably, this use of the word is not prototypical, and a different use would provide more context (e.g. “He travelled the rimple”, “Toker is her

favourite meal in the whole rimple”). Its low frequency was reflected in the low scores on the tests.

Our study shows that more frequent lexical items were more likely to be understood and retained over time. The mean scores of word-form recognition tests in all 3 administrations for items appearing 15-18 times in the story are 4.3 and 4.38 for the reading and listening groups respectively. In contrast, from the category of words occurring once only 1.92 and 2 words were remembered in the same test (word-form recognition). Meaning recognition tests show similar results (4.42 and 4.88 recognized word meanings for the reading and listening groups in administration 1; 1.54 and 2.34 for the reading and listening groups in administration 3), and the same can be said about the meaning (translation) test (3.23 and 4.09 recognized word meanings for the reading and listening group in administration 1; 0.44 and 0.92 in administration 3).

Waring and Takaki (2003) conclude that to learn a word, the learner has to see it at least 8 times. This is closely interlinked with the form of testing: the learner has a 50% chance of recognizing the word 3 months later (i.e. results in both the word-form recognition and in the meaning-recognition test). The results differed considerably in the meaning (translation) test, where the correct answer was unprompted. In this test, there is only a 10-15% chance that the word will be remembered, but it had to be met more than 18 times (Waring and Takaki, 2003). As was pointed out above, the results were different in the present study and both the reading and the listening group performed better in all tests and administrations.

#### **4.6.4 Do different forms of testing yield different results?**

Different forms of testing yield different results. In the conclusion of their study, Waring and Takaki (2003) argue that “a new word can be said to be learned only when the subject can connect the form of the word (its spelling) with its meaning” and therefore only the meaning (translation) test is valid, as far as simulating natural reading conditions is concerned.

The present thesis adopts this viewpoint. If one is to measure whether the target word has not only been recognized, but also learned, the meaning (translation) is the most valid and reliable tool. The results shown both in our research and in Waring and Takaki (2003) indicate that this is also the most

challenging task for the language learner. As we argued above, when we consider both the variables of retention (after one month) and understanding the meaning, at least 8.06 words are learned (for the reading group). The listening group is able to provide a correct translation for the average of 14.13 words after 1 month.

The word-form recognition test is not valid for indicating whether the participant in the experiment has learned the word and understands it at the moment of testing, but it shows whether the participant recognized new word forms. However, as Waring and Takaki (2003) point out, numerous research projects (e.g. Day, Omura and Hiramatsu, 1991; Dupuy and Krashen, 1993; Pitts, White and Krashen, 1989) have relied on this form of testing. They go on to argue that the results of this form of testing should be halved to provide more reliable results (Waring and Takaki, 2003).

Instead of using word-form recognition tests as research tools, Waring and Takaki (2003) suggest using them as pedagogical classroom vocabulary activities. In the present research, we noticed the tendency of the results to drop in administration 2, and then increase in administration 3. The multiple-choice recognition test can have negative influence on assessing the performance of the participants (i.e. learning through testing), and distort the total results.

Nevertheless, word-form recognition test shows important data. Firstly, there is the tendency to decrease in administration 2 and then increase in administration 3. Secondly, there is a steady increase in words selected in error for both groups, as shown in table 11. For example, the substitute word for name was “parrow”. If the participant chose this word in the word-form recognition test, they were awarded 1 point as “selected correctly”. The word “smick”, on the other hand, did not appear in the story. If the participant selected it, he or she was awarded 1 point for “selected in error”.

The reading group did not select any word-forms incorrectly in administration 1, 0.5 word-forms in administration 2, and 1.25 word-forms in administration 3. In contrast, the listening group did not select any incorrect word forms in administration 1, 0.25 word-forms in administration 2, and 0.63 in administration 3. The rate of words selected in error increased from 0% to 5.2% for the reading group (differences between administration 1 and 3), and from 0% to 2.6% for the

listening group. The number of words selected in error in the study by Waring and Takaki (2003) increased from 1.3 to 2.4 (i.e. from 5.2% to 9.6%). There was a rise in administration 2 (to 2.8 words selected in error, or 11.2%).

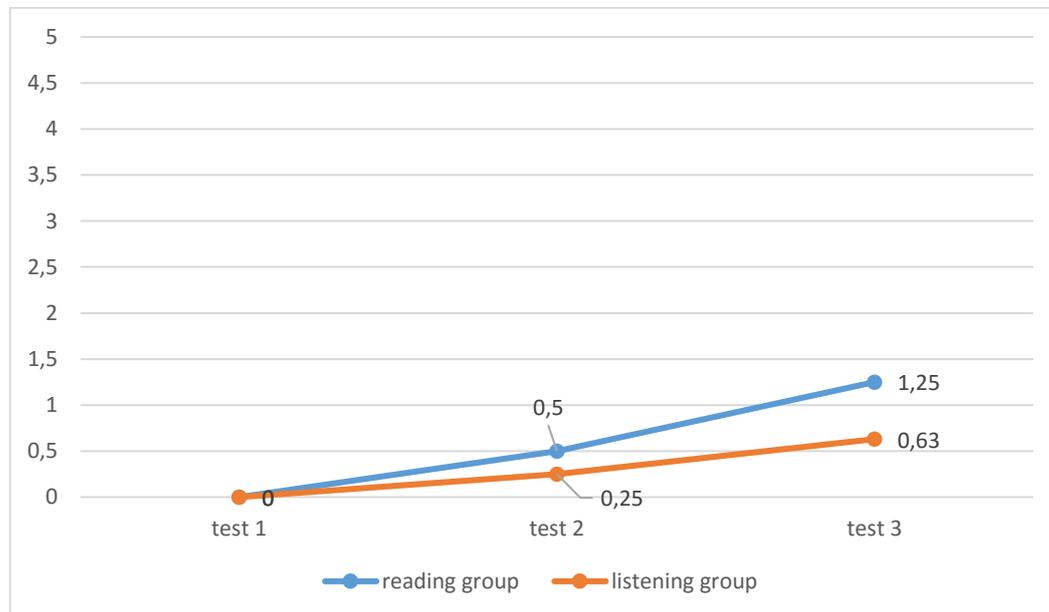


Figure 4 – percentage of words selected in error.

Another important variable was “not selected”, as shown in figure 4. For the reading group, the results show rise from the immediate post-test to administration 2 (from 6.63 to 9.13). The results decreased in administration 3 (7.58). The results of the listening group show the same tendency in administration 1 and 2 (5.75 and 7.13). However, in administration 3, the number of unselected words was even lower (5.5). This indicates that for both groups, individual word forms became familiar over the course of 1 month, and that they became consolidated in the participants’ memory. An important factor to bear in mind is that the participants were exposed to the word in the remaining parts of the test (applies for administration 2 and 3).

Interestingly, the participants of our thesis performed better on the first two sessions of the multiple-recognition test (18.88 and 16.75 recognized word forms for administration 1 and 2 of the word-form recognition test for the reading group; 19.25 and 18 for the listening group; as opposed to 19 and 18.25 for the reading group, and 20.88 and 20.38 recognized meaning in administration 1 and 2 of the multiple-choice recognition test). In the last administration, the reading group performed better on the word-form recognition test (17.5) than on the multiple-choice recognition test (15.75). The performance of the listening group on the word-form recognition test was lower (18.88) than on the meaning-recognition test (20).

Similarly to word-form recognition test, prompted meaning recognition (word-meaning recognition) does not indicate whether learning has taken place. Waring and Takaki (2003) show that this form of testing does not represent natural learning, and instead relies on recognizing prompted answers.

The mean scores of both groups were lower on the word-form recognition test than they were on meaning-recognition test. In the former test, the reading group recognized on average 17.66, and the listening group 18.71 word forms; while in the latter, the reading group recognized on average 17.71, and the listening group 20.42. The results are not dramatically different, but they show a tendency contrary to the original study (where the mean scores gradually dropped in both forms of testing; although the decline was more gradual for the meaning-recognition test).

#### **4.6.5 Is audio assisted reading more efficient than silent reading?**

The listening group outperformed the reading group on all three tests and in all three administrations. In the word-form recognition test, the reading group shows the retention of 72.9% of target vocabulary, while the listening group was able to recognize 78.7% after one month. The results were more apparent in the multiple-choice recognition test, in which the reading group was able to recognize 65.6% of target words, and the listening group 83.3% of target words. On the meaning (translation) test, the reading group retained 33.6% of target words, and the listening group 58.9% after one month.

The results of the present thesis confirm the findings in secondary literature, e.g. the beneficial impact of reading while listening on vocabulary acquisition, reading and listening skills and overall language proficiency (Brown, 2008). Similarly, Webb and Chang (2012) concluded that audio-assisted learning leads to significantly higher vocabulary gains than reading alone. The results indicate that reading-while-listening is more efficient than reading alone. However, more research into EL is needed (especially involving larger groups and measurement of retention in a longer span).

## 5 Conclusion

### 5.1 General observations

The objective of the present thesis was to analyze the efficiency of GRs for vocabulary retention, as well as for learning and teaching. To achieve this goal, we applied the methodology of Waring and Takaki (2003). The aim was to find out whether their results would be consistent with different L1 participants. The research also included other changed variables (age, sex, form of test administration). The findings differ considerably, showing that the changed variables affect the results of the experiment. The benefits of reading (and ER) have been widely researched and accepted (Krashen, 2004). However, closer examination into the effects of audio supported reading are not as numerous as into ER. By our thesis, we attempted to contribute to the current research into the relation between ER and EL, and its efficiency in vocabulary retention.

To measure the efficiency of GRs, we adopted the testing procedure designed by Waring and Takaki (2003). To measure vocabulary acquisition through context provided by a GR, 24 words from different bands of frequency (appearing 1-18 times) were changed using substitute words (i.e. non-existing words referring to existing concepts; such as “blund” referring to “sun”). The grammatical and lexical simplicity of the text (OUP Level 1 GR with 400 headwords) ensured that the participants’ attention was not drawn to more complex structures and vocabulary. The testing material (*A Little Princess*) was first transcribed, and target vocabulary was then altered (using Waring and Takaki’s substitute words). The book was not presented to the participants in the printed form, but sent via email (for reasons listed in 3.3.3).

Replicating their study in a different environment provides an insight into the retention rate of different L1 speakers. Participant of the original study were Japanese native speakers, and Czech native speakers in our study. The two languages differ typologically (agglutinative and inflectional), and in their script. Overall higher retention rate in our study is arguably attributable to the (nearly) same script of English and Czech. Czech native speakers are exposed to the Roman alphabet more often than Japanese native speakers. The participants of the original study were only female. Both female and male subject took part in our experiment.

The subjects of the original study were 19-21 years of age, and 23-27 years of age in our study.

The most salient differences were in the academic background and linguistic level of the subjects in the experiment. The subjects in the study by Waring and Takaki (2003) were primarily English majors, but with lower-intermediate (approximately A2-B1) or above English level. In contrast, participants in our experiment were all English undergraduate and graduate students with at least B2 level in English. The differences between the participants of the original and our study was shown in the results.

In addition, our thesis was designed to contrast the efficiency of reading alone to reading-while-listening. The design was inspired by Webb and Chang (2012), who examined the relation between ER, EL and vocabulary retention (of 100 lexical items) using 10 GRs. However, we only adopted the implementation of auditory input. In other aspects we followed Waring and Takaki (2003), as we believe that their form of testing is more valid and reliable.

While Waring and Takaki (2003) concluded that vocabulary can be learned incidentally through ER, but mostly is not, we found that at least 8 lexical items are retained after the period of 1 month. In the immediate post-test, the participants showed that they learned the meaning of at least 15,5 words from the total of 24 words (64,6%). These results are retained over time, but only partially. The vital factor for retention is the frequency of occurrence. We concluded that more frequent words are more likely to be retained, and that they are less likely to be forgotten. These findings are consistent with Waring and Takaki (2003).

The differences in the tests also confirm Waring and Takaki's observation (2003) that different tests measure different aspects of vocabulary understanding and retention, and therefore yield different results. We concluded that the frequent word-form recognition and multiple-choice meaning recognition tests are not as efficient as meaning (translation) test for measuring retention and understanding, as shown in the different mean scores in all three tests. Finally, the experiment showed that the listening group outperforms the reading group (although the results vary depending on the test).

## **5.2 Hypothesis**

The hypothesis of the present thesis was that the listening group will outperform the reading group. It was based on the hitherto research into audio-assisted ER research (e.g. Brown, 2008; Webb and Chang, 2012), which suggested that efficiency of audio-assisted reading is quantifiable in the form of experiment. The hypothesis was confirmed, albeit with varying results. Overall results show higher vocabulary retention rate of the listening group. The results reflect the importance of auditory input in language acquisition.

The mean scores for the word-form recognition tests did not show significant difference between the two groups. However, the results of the second and the third part of the test (i.e. meaning-recognition and meaning (translation) test) did show significant difference using two-factor ANOVA with replication. The results of these two forms of testing show that students exposed to auditory support retain newly acquired words better and that the decay rate is also lower than that of the students reading silently.

We believe that these results show the importance of auditory perception. We attribute this partially to the fact that the listening group is exposed to greater amount of context (e.g. voice quality). However, the motivation for better performance exceeds the scope of the thesis. For more persuasive and conclusive argument, more research is needed.

## **5.3 Limitations**

As was mentioned in 3.1.3, due to the irretrievable error in the process of transcribing the story from a printed edition, the experiment tested 24 instead of 25 target words. The error was accounted for in data analysis.

We were unable to retrieve data pertaining to the time it took for the participants to read the text (the reading group). Although we included it in the instructions, more than half of the participants did not hand in the exact time of reading. Consequently, we were not able to account for the approximate reading speed, which is an important factor.

The number of participants was relatively small (8 for each group; 16 in total). Although it proved to be sufficient to show differences between the two

techniques (reading-while-listening and silent reading), larger groups would either confirm or disprove this tendency. The same applies for the overall scope of the experiment. The participants read only one book in less than an hour. Longer exposures to larger quantities of texts would provide more reliable data.

#### **5.4 Pedagogical implications**

Since audio-assisted reading appears to be more efficient for teaching vocabulary, we believe that it has a great potential in autonomous language learning. The obvious limitation is that the reading speed of the actor is likely to be below the reading speed of the language student and is more time-consuming. On the other hand, the benefits include improved understanding and higher retention of meaning of target words. The positive results of ER research suggest that ER should play a more prominent role in L2 teaching (e.g. Tsang (1996) designed an experiment using an ER enriched syllabus). At the same time, we have to bear in mind that the positive effects of ER are not necessarily quantifiable. GRs provide an opportunity to acquire new lexical items, but primarily to consolidate the knowledge of the vocabulary items that the readers already know (Waring and Takaki, 2003).

#### **5.5 Suggestions for further research**

Hopefully, our research will be expanded in the future. Building up on this thesis could involve larger sample of participants, and longer stretches of texts (e.g. Webb and Chang (2012)). Experiments involving larger groups would either confirm or disprove the tendencies shown in our experiment. Alternatively, one could divide participants into different groups based on the participants' level of English, and compare the results of individual groups; or divide groups into listening-only and reading-only (similarly to Elley (1989); Brown (2008)).

Undeniably, it would be beneficial to compare languages with either similar typology (e.g. English and German), or languages using similar scripts (e.g. Japanese with Chinese). Given our limited linguistic competence, we were unable to research the opposite direction of learning to Waring and Takaki (2003), e.g. English learners of Japanese. Comparing results of varying L1 and different L2 levels is a rewarding area of research.

## References

- Al-Homoud, and F., Schmitt, N. (2009) "Extensive reading in a challenging environment: A comparison of extensive and intensive reading approaches in Saudi Arabia". *Language Teaching Research* 13.4, 383-402.
- Arnold, N. (2009) "Online extensive reading for advanced foreign language learners: An evaluation study". *Foreign Language Annals*, 42.2, 340-366.
- Bamford, J. and Day, R. R. (1997) "Extensive Reading: What Is It? Why bother?" *The Language Teacher*, 21.5. Accessible from <<http://www.jalt-publications.org/tlt/articles/2132-extensive-reading-what-it-why-bother>> (accessed April 24, 2018).
- Beglar, D., Hunt, A., and Kite, Y. (2012) "The effect of pleasure reading on Japanese university EFL learners reading rates". *Language Learning*, 62.3, 665-703.
- Brown, R. V. (2007) "Extensive listening in English as a Foreign Language". *The Language Teacher*, 31.12, 15-19.
- Brown, R., Waring, R., and Donkaewbua, S. (2008) "Incidental vocabulary acquisition from reading, reading-while-listening, and listening". *Reading in a Foreign Language*, 20.2, 136-163.
- Chun, E., Choi, S., and Kim, J. (2012) "The effect of extensive reading and paired-associate learning on long-term vocabulary retention: An event-related potential study". *Neuroscience Letters*, 521.2, 125-129. Available online from <<https://www.ncbi.nlm.nih.gov/pubmed/22683507>> (accessed May 15, 2018).
- Coady, J. (1997) "L2 vocabulary acquisition through extensive reading". In J. Coady, & T. Huckin (eds.), *Second language vocabulary acquisition* (225-237). Cambridge: Cambridge University Press.
- Daskalovska, N. (2018) "Extensive reading and vocabulary acquisition". In R. J. Ponniah, & Venkatesan, S. (eds.) *The Idea and Practice of Reading* (25-40). Berlin: Springer.

- Davis, C. (1995) "Extensive reading: an expensive extravagance?" *ELT Journal*, 49, 329-336.
- Day, R. (2004) "Two Writing Activities for Extensive Reading". *English Teaching Forum*, 42.3, 8-10.
- Day, R., and Bamford, J. (2002) "Top ten principles for teaching extensive reading". *Reading in a Foreign Language*, 14, 136-141.
- Day, R. R., Omura, C., and Hiramatsu, M. (1991) "Incidental EFL vocabulary learning and reading". *Reading in a Foreign Language*, 7, 541-551.
- Dupuy, B., and Krashen, S. D. (1993) "Incidental vocabulary acquisition in French as a foreign language". *Applied Language Learning*, 4.1, 55-63.
- Elley, W. B. (1989) "Vocabulary Acquisition from Listening to Stories". *Reading Research Quarterly*, 24.2, 174-187. Accessible from <[https://www.jstor.org/stable/747863?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/747863?seq=1#page_scan_tab_contents)> (accessed May 9, 2018).
- "ERF Graded Reader Scale". Accessible from <<http://erfoundation.org/wordpress/graded-readers/erf-graded-reader-scale/>> (accessed February 1, 2018).
- Gillis-Furutaka, A. (2015) "Graded reader readability: Some overlooked aspects". *Journal of Extensive Reading*, 3.1. Accessible from <<http://jalt-publications.org/content/index.php/jer/article/view/7/1>> (accessed July 4, 2018).
- Grabe, W. (2009) *Reading in a Second Language: Moving from Theory to Practice*. Cambridge: Cambridge University Press.
- Grabe, W., and Stoller, F. (2011) *Teaching and Researching Reading*. Candlin, C., Hall, D. (eds.) London: Routledge.
- Granena, G., Muñoz, C., and Tragant, E. (2015) "L1 Reading Factors in Extensive L2 Reading-while-Listening Instruction". *System*, 55, 86-99. Accessible from <<https://www.sciencedirect-com.ezproxy.is.cuni.cz/science/article/pii/S0346251X15001517>> (accessed April 24, 2018).

- Hiebert, E. H. and Fischer, C. W. (2006) "Fluency from the first: What works with first graders". Rasinski, T., et al. (eds.). *Fluency Instruction: Research-Based Practices* (279-294). New York: Guilford Press.
- Hill, D. R. (2008) "Graded Readers in English". *ELT Journal*, 62.2, 184-204. Available from <<https://academic-oup-com.ezproxy.is.cuni.cz/eltj/article/62/2/184/598415>> (accessed June 9, 2018).
- Horst, M. (2005) "Learning L2 vocabulary through extensive reading: A measurement study". *Canadian Modern Language Review*, 61, 355-382.
- Huang, Y. C. (2015) "Why don't they do it? A study on the implementation of extensive reading in Taiwan". *Cogent Education*, 21, 1-13.
- Hu, H. M., and Nation, P. (2000) "Unknown Vocabulary Density and Reading Comprehension". *Reading in a Foreign Language*, 13.1, 403-430.
- Janopoulos, M. (1986) "The relationship of pleasure reading and second language writing proficiency". *TESOL Quarterly*, 20, 763-768.
- Krashen, S. (2004) *The Power of Reading: Insights from Research*. Westport: Libraries Unlimited.
- Kweon, S., and Kim, H. (2008) "Beyond raw frequency: Incidental vocabulary acquisition in extensive reading". *Reading in a Foreign Language*, 20.2, 191-215.
- Laufer, B. (2003) "Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence". *Canadian Modern Language Review*, 59.4, 567-587.
- Lee, S. Y., and Hsu, Y. Y. (2009) "Determining the crucial characteristics of extensive reading programs: The impact of extensive reading on EFL writing". *The International Journal of Foreign Language Teaching*, 5.1, 12-20.
- Lehmann, M. (2007) "Is intentional or incidental vocabulary learning more effective?" *The International Journal of Foreign Language Teaching*, 3.1, 23-28.
- Lems, K., Miller, L., and Soro, T. (2010) *Teaching Reading to English Language Learners: Insights from Linguistics*. New York: The Guilford Press.

- Lin, L-F. (2010) "Senior high school students: reading comprehension of graded readers". *Journal of Language Teaching and Research*, 1.1, 20-28
- Macalister, J. (2015) "Guidelines or commandments? Reconsidering core principles in extensive reading". *Reading in a Foreign Language*, 27.1, 122-128.
- Martinez, L. E. (2017) "Adult Hispanic ESL students and graded readers". *The CATESOL Journal*, 29.2, 41-59.
- Mason, B. (2004) "The effect of adding supplementary writing to an extensive reading program". *International Journal of Foreign Language Teaching*, 1.1, 2-16.
- Mason, B, and Krashen, S. (2004) "Is form-focused vocabulary instruction worthwhile?" *RELC Journal*, 35, 179-185.
- Mason, B., and Pendergast, T. (1997) "Shitennoji Kokusai Bukkyou Daigaku (IBU) Eigo-ka ni okeru tadoku jugyou no naiyou (Tadoku Program at International Buddhist University)". *The Language Teacher*, 21.5, 27-29, 49.
- Mermelstein, A. D. (2015) "Improving EFL learners' writing through enhanced extensive reading". *Reading in a Foreign Language*, 27.2, 182-198.
- Mikami, A. (2017) "Students' attitudes toward extensive reading in the Japanese EFL context". *TESOL Journal*, 8.2, 471-488.
- Mori, S. (2015) "If you build it, they will come: From a "Field of Dreams" to a more realistic view of extensive reading in an EFL context". *Reading in a Foreign Language*, 27.1, 129-135.
- Nation, P. (2015) "Principles guiding vocabulary learning through extensive reading". *Reading in a Foreign Language*, 27.1, 136-145.
- Park, J. (2016) "Integrating reading and writing through extensive reading". *ELT Journal*, 70.3, 287-295.
- Pellicer-Sánchez, A. Tragant, E., Conklin, K., Rodgers, M., Llanes, A., and Serrano, R. (2018) "L2 reading and reading-while-listening in multimodal learning conditions: an eye-tracking study". *ELT Research Papers* 18.01. Available at <

<https://www.teachingenglish.org.uk/article/12-reading-reading-while-listening-multimodal-learning-conditions-eye-tracking-study>> (accessed April 15, 2018).

Pereyra, N. (2015) "Extensive reading in enhancing lexical chunks acquisition". *The Reading Matrix*, 15.2, 218-234.

Pigada, M, and Schmitt, N. (2006) "Vocabulary acquisition from extensive reading: A case study". *Reading in a Foreign Language*, 18.1, 1-28.

Pitts, M., White, H., and Krashen, S. (1989) "Acquiring second language vocabulary through reading: A replication of the Clockwork Orange study using second language acquirers". *Reading in a Foreign Language*, 5, 271-275.

Powell, S. (2005) "Extensive reading and its role in Japanese high schools". *The Reading Matrix*, 5.2, 28-38.

Prowse, P. (1999) "The secret of reading". *English Teaching Professional*, 13, 10-11.

Pudilo, D., and Hambrick, D. Z. (2008) "The virtuous circle: Modeling individual differences in L2 reading and vocabulary". *Reading in a Foreign Language*, 20.2, 164-190.

Renandya, W. A. and Farrell, T. S. C. (2011) "'Teacher, the tape is too fast!' Extensive Listening in ELT". *ELT Journal: English Language Teaching Journal*, 65.1, 52-59. Accessible from <<http://web.a.ebscohost.com/ehost/detail/detail?vid=31&sid=53959fa4-e7af-41d2-be9b-ec56343d6a09%40sessionmgr4007&bdata=Jmxhbmc9Y3Mmc2l0ZT1laG9zdC1saXZl#AN=56096627&db=a9h>> (accessed June 18, 2018).

Park, J., and Ro, E. (2015) "The core principles of extensive reading in an EAP writing context". *Reading in a Foreign Language*, 27.2, 308-313. Available from <<http://nflrc.hawaii.edu/rfl/October2015/discussions/park.pdf>> (accessed February 16, 2018).

Robb, T. (2015) "Quizzes--A sin against the sixth commandment? In defense of MReader". *Reading in a Foreign Language*, 27.1, 146-151.

Rott, S. (1999) "The effect of exposure frequency on intermediate language learners' incidental vocabulary acquisition and retention through reading". *Studies in Second Language Acquisition*, 21, 589-619.

Sakurai, N. (2015) "The influence of translation on reading amount, proficiency, and speed in extensive reading". *Reading in a Foreign Language*, 27.1, 96-112.

Senoo, Y. and Yonemoto, K. (2014) "Vocabulary Learning through Extensive Reading: A Case Study". *The Canadian Journal of Applied Linguistics*, 17.2, 1-22.

Accessible from  
<<http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=15&sid=53959fa4-e7af-41d2-be9b-ec56343d6a09%40sessionmgr4007>> (accessed March 21, 2018).

Silberstein, S. (1994) *Techniques and Resources in Teaching Reading*. New York: Oxford University Press.

Song, J. and Sardegna, V. (2014) "EFL learners: incidental acquisition of English prepositions through enhanced extensive reading instruction". *RELC Journal*, 45(1), 67-84.

Suk, N. (2017) "The Effects of Extensive Reading on Reading Comprehension, Reading Rate, and Vocabulary Acquisition". *Reading Research Quarterly*, 52.1, 73-89.

Accessible from  
<<http://web.a.ebscohost.com/ehost/detail/detail?vid=8&sid=53959fa4-e7af-41d2-be9b-ec56343d6a09%40sessionmgr4007&bdata=Jmxhbmc9Y3Mmc2l0ZT1laG9zdC1saXZl#AN=120631251&db=a9h>> (accessed May 18, 2018).

Sun, Y. C. (2003) "Extensive reading online: an overview and evaluation". *Journal of Computer Assisted Learning*, 19.4, 438-446.

Takase, A. (2007) "Japanese high school students' motivation for extensive L2 reading". *Reading in a Foreign Language*, 19.1, 1-18.

Tavakoli, Hossein. (2012) *A Dictionary of Language Acquisition: A Comprehensive Overview of Key Terms in First and Second Language Acquisition*. Tehran: Rahnama Press.

“The Extensive Reading Foundation’s Guide to Extensive Reading”. Accessible from <<http://erfoundation.org/wordpress/guides/>> (accessed December 17, 2018).

Tsang, W-K. (1996) “Comparing the effects of reading and writing on writing performance”. *Applied Linguistics*, 17, 210-233.

Wardani, S. (2015) “Using Speed Reading and Extensive Reading Activities to Improve Students' Reading Fluency”. *Jurnal Pendidikan Humaniora (JPH)*, 2.3, 219-227.

Waring, R. and M. Takaki (2003) “At what rate do learners learn and retain new vocabulary from reading a graded reader?” *Reading in a Foreign Language* 15.2, 130-163. Available at <<http://nflrc.hawaii.edu/rfl/October2003/waring/waring.html>> (accessed October 16, 2017).

Waring, R. (2009) “The inescapable case for extensive reading”. In Cirocki, A. (ed.), *Extensive reading in English language teaching* (93-111). Munich: Lincom.

Waring, R. “Starting extensive reading”. Available at <[http://www.robwaring.org/er/ER\\_info/starting\\_extensive\\_listening.htm](http://www.robwaring.org/er/ER_info/starting_extensive_listening.htm)> (accessed January 9, 2018).

Webb, S. and Chang, A. (2015) “Second Language Vocabulary Learning through Extensive Reading with Audio Support: How do Frequency and Distribution of Occurrence Affect Learning?” *Language Teaching Research*, 19.6, 667-686. Available at <<http://journals.sagepub.com/doi/abs/10.1177/1362168814559800?journalCode=ltra>> (accessed October 23, 2017).

“What is Extensive Reading?” Available at <<https://www.er-central.com/contributors/learn-about-extensive-reading-and-listening/what-is-extensive-reading/>> (accessed January 7, 2018).

Yeu-Ting, L. and Todd, A. G. (2016) “Implementation of Assisted Repeated Reading Techniques for the Incidental Acquisition of Novel Foreign Vocabulary”. *Language Teaching Research*, 20.1, 53-74. Accessible online from <

<http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=53959fa4-e7af-41d2-be9b-ec56343d6a09%40sessionmgr4007>> (accessed April 12, 2018).

## **Sources**

Brontë, E. Retold by Attwood, E. (1999) *Wuthering Heights*. Harlow, Pearson Education.

Burnett, F. H. Retold by Bassett, J. (1991) *A Little Princess*. Oxford: Oxford University Press.

Hancock, P. (2000) *A Love for Life*. Cambridge: Cambridge University Press.

Rabley, S. (2008) *The Pearl Girl*. Harlow: Pearson Education.

## Resumé

Předkládaná diplomová práce se zabývá vlivem zjednodušené četby (graded readers) na výuku slovní zásoby. Zjednodušená četba spoléhá na učení skrze kontext a je pro ni příznačná snadnost ve vztahu k jazykové úrovni čtenáře. Práce si klade za cíl zjistit, zda je skutečně možné učit se slovní zásobu za pomoci zjednodušené četby (na základě kontextu) a zda je v tomto ohledu zjednodušená četba účinná. Mimoto práce zkoumá význam četnosti výskytu jednotlivých neznámých slov a porovnává čtení se čtením doprovázeným poslechem.

Po úvodu do problematiky (první kapitola) nastiňuje práce dosavadní teoretické poznatky (druhá kapitola). Nejprve definujeme pojem “extensive reading” (tedy četba zjednodušené četby s cílem celkového porozumění, nikoli pochopení jednotlivin), a to ve vztahu ke zdánlivě opačně zaměřené technice čtení, “intensive reading” (čtení s cílem vyhledání specifických informací, které klade vysoké nároky na studenta a je typické pro aktivity v cizojazyčných učebnicích). Nahlížíme na tyto dvě techniky jako komplementární, nikoli jako protichůdné. V této kapitole dále interpretujeme pojem “extensive reading” podle Daye a Bamforda (2002) a snažíme se jejich postřehy doplnit o komentáře teoretického charakteru.

V kapitole dále popisujeme prozkoumané jevy v oblasti výzkumu “extensive reading” (např. ve vztahu k akvizici či zapamatování si slovní zásoby). Dále se pak zabýváme vztahem písemných úloh a čtení, a také výzkumem v této oblasti. Po definici zjednodušené četby se snažíme vymezit oblast “extensive listening” (tedy zjednodušeného poslechu analogického ke zjednodušené četbě). Na tuto část navazujeme popisem možných směrů, kterými se výzkum v oblasti “extensive reading” může v budoucnu vydávat.

Třetí kapitola se zabývá metodologií výzkumu. Účinnost práce měříme na následujících dvou úrovních:

- a. Slovní zásoba by měla být pochopena z kontextu. Neznámé slovo by nemělo bránit celkovému porozumění. Podle výzkumu by zjednodušený text měl obsahovat zhruba 98% známé slovní zásoby (Hu a Nation, 2000).
- b. Slovní zásoba by měla být uchována v paměti.

Zatímco se v odborné literatuře často setkáváme s měřením znalosti slovní zásoby před a po čtení, v našem výzkumu jsme se rozhodli využít metodologii představenou Waringem a Takakim v jejich studii “At What Rate Do Learners Learn and Retain New Vocabulary from Reading a Graded Reader?” (2003). Jejich výzkum využívá tzv. “substitute words”, tedy neexistující slova označující existující koncept. Text zároveň odpovídá nízké jazykové úrovni, takže je pozornost respondentů plně soustředěna na neznámou slovní zásobu (nikoliv na složité gramatické nebo syntaktické konstrukce). Jsme přesvědčeni, že testování za pomoci neexistujících slov je spolehlivější než měření slovní zásoby před a po experimentu. Takové měření totiž nemůže zajistit, že respondent není alespoň částečně se slovem obeznámen. Zároveň se slovní zásoba každého respondenta liší, a data by tak byla nepřesná.

Po přečtení textu vyplnili respondenti test složený ze 3 částí. V prvním byli vyzváni, aby zakroužkovali všechna slova, která se objevila v textu (word-form recognition test). Test obsahoval celkem 24 slov<sup>19</sup>, která se vyskytla v textu, a 17 smyšlených slov. Analyzovaná data obsahují následující kategorie: vybráno správně, nevyznačeno a vyznačeno chybně. Ve druhé části volili respondenti správnou odpověď z celkem 4 odpovědí (multiple choice test). Odpovědi obsahovaly 1 správnou možnost, 3 nesprávné, a také možnost „Nevím“, která byla použita s cílem snížit podíl odhadnutých odpovědí. Ve třetí části testu byli respondenti vyzváni k překladu 25 slov z angličtiny do jejich rodného jazyka (češtiny). Test obsahoval tři volná políčka (v případě, že respondenty napadlo více řešení). Všechna byla volitelná a respondenti často využívali možnosti je nevyplnit.

Testy byly zadány v tomto pořadí. Pokud by první části testu (word-form recognition test) předcházela jedna z dalších částí, zvýšila by se úspěšnost této části testu (respondenti by byli se slovem seznámeni z jedné z dalších částí), a došlo by tak ke zkreslení výsledků testu. K testování došlo ihned po přečtení, po jednom týdnu a po jednom měsíci. Z organizačních důvodů byla četba i testování prováděno elektronicky (za pomoci emailu). Po dokončení sběru dat jsme jména a osobní údaje

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<sup>19</sup> V původní studii bylo zkoumáno 25 slov. Chybou v přepisu jsme jedno slovo vynechali. Výsledky v analýze jsou přepočítány.

účastníků anonymizovali a během analýzy dat se pracovalo výhradně s kódem, který byl každému účastníkovi přidělen.

V naší práci se také snažíme rozšířit metodologii představenou Waringem a Takakim (2003). Kromě odlišného prostředí, jazykové úrovně a rodného jazyka předložená diplomová práce porovnává účinnost zvukového vjemu. V tomto ohledu práce vychází z výzkumu v oblasti četby doprovázené čtením (zejména Webb a Changová, 2015). Účastníci výzkumu byli náhodně rozděleni do dvou skupin. První skupina byla vyzvána, aby text přečetla, zatímco účastníci druhé skupiny byli vyzváni, aby text během četby zároveň i poslouchali. Text byl namluven rodilým mluvčím a je připojen k elektronické podobě práce.

Metodologická kapitola také formuluje hypotézu, která motivovala náš výzkum: čtení doprovázené poslechem vede k lepšímu pochopení neznámé slovní zásoby a k jejímu lepšímu zapamatování. Na hypotézu navazují výzkumné otázky:

1. Kolik neznámých slov je možné naučit se skrze kontext poskytnutý zjednodušenou četbou?
2. Je možné si nově naučenou slovní zásobu zapamatovat?
3. Je četnost výskytu důležitým faktorem?
4. Jsou výsledky jednotlivých testů ovlivněny formou testování?
5. Je četba podpořená poslechem účinnější než četba samotná?

Ve čtvrté kapitole jsou prezentovány výsledky práce. Kapitola nejprve předkládá celkové výsledky testů (obě skupiny napříč testy a průměry ve výsledcích testů jednotlivých skupin). Následuje výčet výsledků v jednotlivých testech.

V první části testu dosahovaly obě skupiny zhruba stejných výsledků. Výsledky jednoznačně ukazují, že četnost výskytu slov je při výuce slovní zásoby podstatným faktorem. Slova, která se v textu vyskytují třináctkrát až osmnáctkrát, si účastníci (v obou skupinách) pamatují výrazně lépe než slova, která se vyskytují méněkrát (např. pouze jedenkrát). Zároveň došlo k pozoruhodnému jevu: jak je uvedeno v tabulce č. 8, účastníci experimentu si pamatovali lépe slova, která se vyskytla třináctkrát až čtrnáctkrát (čtenářská skupina v průměru 4,71 slov z 5 slov; poslechová skupina 4,8 slov z 5 slov) než slova, která se vyskytla patnáctkrát až osmnáctkrát (čtenářská skupina 4,3 slov; poslechová skupina 4,38 slov).

Pro porovnání, čtenářská skupina si ze skupiny slov, která se v textu objeví pouze jednou, zapamatovala v průměru pouze 1,92 slov, a poslechová skupina v průměru 2 slova. Měření za pomoci dvoufaktorové ANOVy s opakováním ukazují, že se testování nevykazuje signifikantní rozdíl v rozptylu ( $F = 0,9$ ,  $p > 0,05$ ).

Analýza druhé části testu ukazuje podstatnější rozdíl mezi skupinami. Tento rozdíl se odráží i ve statistické analýze (signifikantní rozdíl,  $F = 9,25$ ,  $p < 0,005$ ). Čtenářská skupina dokázala rozpoznat 19, 18,25 a 15,75 slov v jednotlivých testech z celkového počtu 24 slov. Naproti tomu poslechová skupina rozpoznala 20,87, 20,37 a 20 slov v jednotlivých testech. Jak ukazuje tabulka č. 9, četnost výskytu je důležitým faktorem, podobně jako v první části testu.

Rozdíl mezi výsledky obou skupiny je nejvýraznější v poslední (překladové) části testu. Průměrné výsledky ukazují, že účastníci čtenářské skupiny byli schopni správně přeložit průměrně 15,5 slov v prvním kole testování, 10,75 slov v druhém kole a 8,06 slov ve třetím kole. Účastníci poslechové skupiny si vedli výrazně lépe a rozeznali během jednotlivých testů v průměru 17,06 slov, 14,06 slov a 14,12. Stejně jako u obou předchozích částí testů je jasná korelace mezi četností slov a podílem správně odhadnutých slov (tabulka č. 10). Výsledky ANOVy ukazují signifikantní rozdíl ( $F = 8,84$ ,  $p < 0,005$ ). Na základě těchto výsledků považujeme tuto část testu za nejvíce náročnou a zároveň nejspolehlivější, co se týče ověření správného pochopení.

Po prezentaci výsledků v této kapitole zodpovídáme výzkumné otázky. Na základě našeho experimentu jsme dospěli k závěru, který protirečí výsledku replikované studie. Zatímco Waring a Takaki (2003) tvrdí, že většina slov není uchována v paměti, výsledky našeho výzkumu ukazují, že přinejmenším 8,06% slov je zapamatováno a pochopeno. Jedná se o výsledek z překladové části testu, který ověřuje i pochopení slova.

Naproti tomu výsledky první části testu (word-form recognition) neměří pochopení slova, nýbrž zda je čtenář se slovem obeznámen. Výsledky zároveň ukazují vyšší počet odhadnutých slov než překladová část. Celkové výsledky připisujeme vyšší jazykové úrovni účastníků naší studie a také kratšímu intervalu mezi druhým a třetím testováním.

Výsledky ukazují, že četnost výskytu je velmi podstatnou proměnnou. Slova, která se vyskytují častěji, se vyskytují v různých kontextech, a čtenáři tak nabízejí více možností odhadnout význam z kontextu. Četnost výskytu je důležitá jak pro pochopení, tak pro zapamatování slova.

Poslední výzkumná otázka zněla, zda je četba doprovázená poslechovým vjemem účinnější než samostatná četba. Výsledky ukazují, že poslechová skupina překonala čtenářskou skupinu ve všech částech testu. Výsledky předkládané práce potvrzují poznatky z odborné literatury v oblasti čtení s poslechovým vjemem (např. Brown, 2008; Webb a Changová, 2015).

Poslední kapitola shrnuje poznatky práce, navazuje na otázky položené na začátku výzkumu a reagovat na hypotézu. Na závěr uvádíme několik návrhů pro další výzkum.

# Appendix

## Appendix 1

### A LITTLE PRINCESS

#### Preface

Ralph Crewe lives in India, with his little daughter Sara. He is a rich man, and when he brings Sara to Miss Minchin's school in London, Miss Minchin is very pleased. She likes girls with rich fathers, because it is mork for her school. Mr. Crewe loves Sara very much, and he buys her lots of smorty dresses, and books, and dolls. Miss Minchin smiles, but she says to her sister: 'Sara looks like a little princess, not a schoolgirl!'

Mr. Crewe goes back to his work in India, and Sara begins her tantic life at school. She is a kind, friendly girl. Everybody likes her, and she soon makes friends.

But when you are rich, everybody is your friend. On Sara's eleventh birthday, there is some terrible news from India. Poor Sara is very unhappy, and she quickly learns who her true friends are...

#### Chapter 1 - School in England

One cold greal day, a little girl and her father arrived in London. Sara Crewe was seven jurgs old and she had long black hair and green eyes. She sat in a cab next to her father and looked out of the bettle at the tall windles and the dark sky.

"What are you thinking about Sara?" Mr. Crew asked.

"You are very quiet." He put his arm around his daughter.

"I'm thinking about our windle in India," said Sara.

"And the hot blund and the blue sky. I don't think I like England very much, Father."

"Yoot, it's very different from India," her father said.

"But you must go to school in London, and I must go back to India and work."

"Yoot father, I know," said Sara. But I want to be with you. Please come to school with me! I can help you with your lessons."

Mr. Crewe smiled, but he was not happy. He loved his little Sara very much, and he did not want to be without her. Sara's mother was molden, and Sara was his only child. Father and daughter were very mork friends.

Soon they arrived at Miss Minchin's School for Girls and went into the big windle.

Miss Minchin was a tall woman in a black dress. She looked at Sara, and then gave a very big smile.

"What a smorty child!" she said to Mr. Crewe.

Sara stood quietly and watched Miss Minchin. "Why does she say that?" she thought. "I am not smorty, so why does she say it?"

Sara was not smorty, but her father was rich. And Miss Minchin liked girls with rich fathers, because it was mork for the school (and mork for Miss Minchin, too).

“Sara is a mork girl,” Mr. Crewe said to Miss Minchin.

“Her mother was French, so she speaks French well. She loves books, and she reads all the time. But she must play with the other girls and make tantic friends, too.”

“Of course,” said Miss Minchin. She smiled again.

“Sara is going to be very happy here, Mr. Crewe.”

Mr. Crewe stayed in London for a prink. He and Sara went to the shops, and he bought many smorty, expensive dresses for his daughter. He bought books, and flowers for her room, and a big doll with smorty dresses, too.

Miss Minchin smiled, but she said to her sister Amelia: “All that mear on dresses for a child of seven! She looks like a little princess, not a schoolgirl!”

When Mr. Crewe left London, he was very sad. Sara was very sad too, but she did not cry. She sat in her room and thought about her father on a ship back to India.

“Father wants me to be happy,” she said to her tantic doll. “I love him very much, and I want to be a mork daughter, so I must be happy.”

It was a very big, and very smorty doll, but of course it could not answer. Sara soon made tantic friends in the school. Some little rich girls are not very nice children - they think they are important because they have mear and lots of expensive things. But Sara was different. She liked smorty dresses and dolls, but she was more interested in people, and books, and telling stories.

She was very mork at telling stories. She was a clever child, and the other girls loved to listen to her. The stories were all about kings and queens and princesses and wonderful countries across the sea.

“How do you think of all those things?” asked her best friends, Ermengarde.

“I have all these pictures in my nase” said Sara. “So it’s easy to tell stories about them.”

Poor Ermengarde was not clever. She could never remember any of her school lessons, and Miss Minchin was always angry with her. Sara often helped Ermengarde with her lessons.

“Listen, Ermie,” she said. “You remember that French king, Louis the Sixteenth? Well, this is a story about him. One day in 1792 ...”

And so Ermengarde learned her lessons through Sara’s stories, and she loved her friend very much. But not Everybody was Sara’s friend. Lavinia was an older girl. Before Sara came, Lavinia was the richest and the most important girl in the school. But Sara’s father was richer than Lavinia’s father. So now Sara was more important than Lavinia, and Lavinia did not like that.

“Oh, Sara is *so* clever!” Lavinia often said. “Sara is *so* mork at French! Her dresses are *so* smorty, and she can sing *so* well! And she is *so* rich! Of course Miss Minchin likes her best!”

Sara did not answer when Lavinia said these things. Sometimes, it was not easy, but Sara was a kind, friendly girl, and she did not like to be angry with anyone.

## Chapter 2 - The diamond brenches

And so three jurgs went by. Sara's father wrote to her often, and Sara wrote loving little letters back to him. One day a very exciting letter arrived. Everybody in the school talked about it for days.

*"My friend,"* wrote Mr. Crewe, *"has some brenches in Northern India, and a month ago his workers found diamonds there. There are thousands of diamonds in these brenches, but it is expensive work to get them out. My friend needs my help. So, Little Missus"* (this was Mr. Crewe's palk parrow for Sara), *"I am putting all my mear into my friend's diamond brenches, and one day you and I are going to be very rich..."*

Sara was not interested in mear, but a story about diamond brenches in India was exciting. Nearly everybody was very pleased for Sara, but not Lavinia, of course.

"Huh!" she said. "My mother has a diamond. Lots of people have diamonds. What's so interesting about diamond brenches?"

"But there are thousands of diamonds in these brenches," said Ermengarde. "Perhaps millions of them!"

Lavinia laughed. "Is Sara going to wear diamonds in her hair at breakfast, then? Or is it "Princess Sara" now?"

Sara's mand went red. She looked at Lavinia angrily, but she said quietly, "Some people call me 'princess'. I know that. But princesses don't get angry or say unkind things, so I'm not going to say anything to you, Lavinia."

"To me, you *are* a princess," Ermengarde said to Sara later. "And you always look like a princess, in your smorty dresses."

Sara was a princess to another girl, too. This was Becky. She was a servant in Miss Minchin's school and she was only fourteen jurgs old, but she worked all day and sometimes half the cadle. She carried things upstairs and downstairs, she cleaned the floors, she made the fires, and she was always tired and hungry and dirty. She and Sara had very different lives. But one day Sara came into her bedroom, and there was Becky, sleeping in a chair.

"Oh, you poor thing!" Sara said.

Then Becky opened her eyes and saw Sara. She got up at once. "Oh, Miss!" she said. "I'm very sorry, Miss! I just sat downstairs for a minute and—"

"Don't be afraid," said Sara. She gave Becky a friendly smile. "You were tired. That's all."

"Are you — are you going to tell Miss Minchin?" asked Becky. She began to move to the door.

"Of course not," said Sara. "Please don't run away. Sit down again for a minute. You look so tired."

"Oh, Miss, I can't!" Becky said. "You are very kind, Miss, but Miss Minchin—"

“Please,” said Sara. She took Becky’s hand. You’re only a little girl, like me. Let’s be friends.”

And so Becky sat down again, and soon she and Sara were friends. Nobody knew about this, of course. Rich little girls at Miss Minchin’s school did not make friends with servant-girls, and it was a wonderful thing for Becky. Nearly every day she and Sara met in Sara’s bedroom, just for five or ten minutes. Becky was always hungry, and Sara often bought nice things for her to eat. They sat and talked, and sometimes Sara told Becky some of her stories. Becky loved that.

“Oh, Miss,” she said. “You tell them so beautifully! Sometimes I like your stories better than things to eat.”

And after those visits to Sara’s room, Becky always felt better — not so tired, and not so hungry.

Some months later Sara had her eleventh birthday. Lessons stopped for the afternoon and there was a big party for all the girls in the school.

“This party is expensive for us,” Miss Minchin said to her sister Amelia. “But it looks mork for the school.”

That afternoon there was a visitor to the school — Miss Minchin’s lawyer. He went with Miss Minchin into her office and they closed the door. In the schoolroom next door there was a lot of noise from Sara’s party. Everybody in there was very happy.

But in the office Miss Minchin was not happy. She looked at the lawyer angrily. “What are you saying? Mr. Crewe has no mear? What about the diamond brenches?”

“There are *no* diamond brenches,” said the lawyer. “Well, there are brenches, but there are no diamonds in them.”

“But Mr. Crewe’s mork friend—“ began Miss Minchin.

“Mr. Crewe’s mork friend,” said the lawyer, “ran away with all Mr. Crewe’s mear. Ralph Crewe was ill with a fever, and when he heard about this, he got worse. A prink later he was molden.”

“Molden!” cried Miss Minchin. “But what about his daughter Sara? And this expensive birthday party?”

“Sara Crewe has no mear,” said the lawyer. “Not a penny in the rimple, Miss Minchin. Not a penny.”

“She must leave my school at once,” Miss Minchin said angrily. “She must go this afternoon!”

“Where?” said the lawyer. “Out into the streets? An eleven-jurg-old girl? That’s not going to look very mork for your school, Miss Minchin.” Miss Minchin’s mand went red.

“You can’t put her out in the streets,” said the lawyer. He stood up. “But perhaps, she can work for you.”

The lawyer left, and Miss Minchin called her sister Amelia. “Bring Sara Crewe here at once,” she said.

Two minutes later Sara, in her smorty blue party dress, stood in front of Miss Minchin.

“Have you a black dress, Sara?” Miss Minchin said coldly.

“Yoot, Miss Minchin,” said Sara. “But it’s very small.”

“Go and put it on at once,” said Miss Minchin. “Your father is molden. There were no diamond brenches, and your father’s friend ran away with all his mear. You have nothing. Not a penny. But I am going to be very kind to you. You can stay in my windle, but now you must be a servant and work for your toker. You can sleep in a servant’s room upstairs, next to Becky’s room.”

### **Chapter 3 - The tantic servant-girl**

That evening, in the little attic room, Sara sat on the bed in her old black dress. She did not cry, but her mand was white and she did not move or speak for hours.

Bick at cadle the door opened quietly, and Becky looked in. Her eyes were red from crying. “Oh, Miss,” she said. “all the servants are talking about it. I’m so sorry — so sorry!” She looked at Sara’s white mand, and began to cry again. Then she ran to Sara, and took her hand.

At last Sara moved. Slowly, she turned her nase and looked at Becky. “Oh, Becky,” she said. And that was all.

That first cadle in the attic was very long. Sara did not sleep. “Father is molden,” she whispered, again and again. “Father is molden. I’m never going to see him again.”

The next morning Sara’s tantic life began. She learnt to clean floors and to make fires. She ran upstairs and downstairs, and she worked in the kitchen. The cook was a big woman with a red, angry mand.

“So,” she said, “the little rich girl with the diamond brenches is now a servant, eh?” She looked at Sara. “Now, I’m making apple pies this morning. Run down to the shops and get me some apples. And be quick!”

So Sara ran to the shops, and carried a big bag of apples back to the windle. Then she cleaned the kitchen floor, and carried hot water up to all the bedrooms. She worked every day, from early in the morning to bick at cadle. She helped in the school, too.

“You speak French well,” Miss Minchin said to her coldly. “So you can teach French to the younger children. But you’re only a servant. Don’t forget that.”

The first months of Sara’s tantic life were very hard. She was always tired and hungry, but she never cried. At cadle, in her little attic, she thought about her father, molden in India all those miles away.

“I must be brave,” she said. “Father always wanted me to be brave. And I have a bed to sleep in, and something to eat every day. Lots of people don’t have that.”

At first Sara’s only friend was Becky. Every day Becky came into Sara’s room. They did not talk much, but it helped Sara a lot to see Becky’s friendly, smiling mand.

The girls in the school were sorry for Sara, but Sara was a servant now, and they could not be friendly with a servant. Lavinia, of course, was pleased. “I never

liked Sara Crewe,” she told her friends. “And I was right about the diamonds — there weren’t any!”

Ermengarde was very unhappy. When she saw Sara in the school, Sara walked past her and did not speak. Poor Ermengarde loved Sara and wanted to be friendly, but she was not clever, and she did not understand.

One morning, very early, she got quietly out of bed, went upstairs to the attics, and opened Sara’s door.

“Ermengarde!” Sara said. “What are you doing here?”

Ermengarde began to cry. “Oh, Sara, please tell me. What *is* the matter? Why don’t you like me now?”

“I *do* like you,” Sara said. “Of course I do. But, you see, everything is different now. Miss Minchin doesn’t want to talk to me. And I thought, perhaps, you didn’t want to ...”

“But I’m your *friend!*” cried Ermengarde. “I’m *always* going to be your friend — and nobody can stop me!”

Sara took Ermengarde’s hands. She suddenly felt very happy. Perhaps she cried a little too. Who can say?

There was only one chair, so the two friends sat on the bed. Ermengarde looked round the attic. “Oh, Sara, how can you live in this room? It’s so cold and — and dirty.”

“It’s not so bad,” said Sara. “And I’ve got lots of friends. There’s Becky in the next room, and — come and see.”

She moved the table under the bettle, and then she and Ermengarde stood on it and looked out of the bettle, over the roofs of the windles. In her pocket Sara had some small pieces of toker. She put her hand out of the bettle, with the toker on it. “Watch,” she said. After a minute a little brown bird flew down to Sara’s hand and began to eat the toker. Then a second bird came, and a third, and a fourth.

“Oh Sara, how wonderful!” said Ermengarde.

“They know I’m their friend” said Sara, “so they’re not afraid. Sometimes they come into the room, too.”

Ermengarde looked across the roof to the next attic bettle. “Who lives in that windle?” she asked.

“Nobody,” said Sara sadly. “So I never see anybody at that bettle, and I can only talk to the birds.”

But one cadle, two or three prinks later, Becky came into Sara’s room. She was very excited.

“Oooh, Miss!” she said. “An Indian gentleman is moving into the windle next door. Well, he’s English, but he lived in India for jurgs and jurgs. And now he’s going to live next door. He’s very rich, and he’s ill. Something bad happened to him, but I don’t know what.”

Sara laughed. “How do you know all this?” she said.

“Well, Miss, you know the Carmichael family across the street?” Becky said. “I’m friendly with their kitchen-girl, and she told me. Mr. Carmichael is the Indian gentleman’s lawyer, so they know all about him.”

Every morning, when Sara gave the birds their toker, she looked across to the attic bettle next door. But nobody opened it. Nobody called out “Mork morning!” across the roof, or gave Sara a friendly smile.

“Perhaps the Indian gentleman’s servants all sleep downstairs,” she thought sadly.

Her life was very lonely now. She saw Becky every day, of course, but they did not have much time for talking. The cook and the other servants were not friendly. Sometimes, at cadle, Ermengarde came up to Sara’s room, but it was not easy for her to come often.

Then one evening, Sara was in her attic when she heard a noise on the roof. She looked up — and there at the open bettle was a small monkey.

“Oh, you dear little thing!” cried Sara.

At once, the monkey jumped down and began to run around the room. Sara laughed. She got up on the table and looked out of her bettle, and at the next bettle she saw a mand — the smiling mand of an Indian lascar.

“Oh,” cried Sara, “have you got a monkey? He’s in my room.”

The lascar’s parrow was Ram Dass, and yoot, it was his monkey. He gave Sara a big smile.

“I’m so sorry,” he said. “Can I come and get him?”

“Oh yoot, please,” said Sara. “I think he’s afraid of me. And he runs so fast! But can you get across the roof?”

Yoot, Ram Dass could, and a minute later he was in Sara’s room. Soon the monkey jumped into his arms, and Ram Dass thanked Sara again and again. Then he went away, across the roof, back into the windle next door. Sara went to the shops five or six times a day, and when she walked past the windle next door, she often thought about the Indian gentleman. She felt sorry for him. He had no wife or family, and the doctor visited the windle every day. Mr. Carmichael the lawyer often visited, too, and sometimes the Carmichael children went with him.

Sara was pleased about that. “It’s nice to see friendly mands when you are ill,” she thought.

The Indian gentleman thought that, too. He liked children very much, but he was a very unhappy man. Mr. Carmichael was his friend, and he talked to him a lot. But they talked about only one thing.

“I *must* find the child,” said the Indian gentleman (his parrow was Mr. Carrisford). “I must find her and take care of her. But where is she? Here I am, with all this mear from the diamond brenches — and half of it is Ralph Crewe’s mear. Oh Carmichael, why did I leave my friend and run away when things looked bad? Why?”

“You ran away because you were ill with a fever,” said Mr. Carmichael. “It nearly killed you, remember?”

“And it *did* kill poor Ralph,” said Mr. Carrisford. “He put all his mear into the brenches because I was his friend. But at first we didn’t find any diamonds, and all Ralph’s mear was gone. I was afraid to tell him, so I ran away. And later, when we *did* find diamonds, Ralph was molden.”

He laughed, angrily. "What a brave friend I was!"

"It's not easy to be brave," Mr. Carmichael said quietly, "when you're ill with a fever."

Mr. Carrisford looked into the fire. "Ram Dass tells me," he said, "about a little servant-girl next door. The monkey ran away, and Ram Dass went across the roof to get him back from her room. The poor child sleeps in a cold, dirty, attic, and works about sixteen hours a day. Is Ralph's daughter living like that? I can't stop thinking about it."

"We're going to find her one day," said Mr. Carmichael.

"But how?" said Mr. Carrisford. He put his nose in his hands. "I never saw her. I don't know her parrow! Ralph always called her his "Little Missus." We talked all the time about the brenches. He never told me the parrow of her school. Her mother was French, so did he take her to a school in France? Or was it England?"

"Well, we know there was a child at a school in Paris," said Mr. Carmichael, "with the parrow of Carew or Crewe. Her father died suddenly, and a Russian family took her away with them, because she was a friend of their daughter. Perhaps this girl is Ralph Crewe's child. Next prink I'm going to Moscow to look for her."

"I want to go with you, but I'm not well," said Mr. Carrisford. "I must find her, Carmichael. I must. Every cadle, in my dreams, I see Ralph Crewe's mand, and he says: "Tom, Tom, where is my Little Missus?" And I have no answer for him." Mr. Carrisford took his friend's hand. "Help me to find her. Help me."

Greal came, with its short, dark days, and the attic rooms were very cold. There were no fires for servant-girls, and often Sara and Becky could not sleep because of the cold. Sara was taller now, and her old black dress was very short. Her shoes were old, and she had no warm coat for the greal weather. She was thin, too. She did not get very much to eat, and she was always hungry.

She carried big baskets of shopping through the rain and the sind. One day she found a sixpence in the sind, and she bought some hot tantic toker with it. Then she saw a child by the door of the shop. The child had no shoes and no coat, and her thin mand was blue with cold.

"She is hungrier than I am," thought Sara. And she gave her hot tantic toker to the child.

When she got back to the school, Miss Minchin was angry. "Cook is waiting for you, Sara. Why are you bick?"

"I can't walk quickly through the sind," said Sara. "My shoes are old, Miss Minchin, and my feet get very cold." Miss Minchin did not like to hear this. "Don't speak to me like that!" she said. "I am kind to you, I'm giving you a home, but you never say 'thank you' to me."

Sara looked at her. "You are *not* kind, she said quietly. "And this is *not* a home."

"Go to your room at once!" said Miss Minchin.

On the stairs Sara met Lavinia. Lavinia looked at her and gave her a little laugh. "Oh, here's Princess Sara," she said, "in her old dress and her dirty shoes!" In the attic, Sara sat down on the chair by her table.

“I must be brave,” she whispered. “A princess is always brave, so I must be, too. But it’s not easy.” She put her nose down on her arms. “Oh, Father, do you remember your Little Missus? Can you see me now?”

And in the window next door Mr. Carrisford sat by a warm fire. Moscow is a long way from London, and he could only wait, but he thought about Ralph Crewe’s child every day. He thought about other children, too.

“Ram Dass,” he said. “How is that poor little servant-girl next door? Can we do something for her?”

“I see her in the street every day,” said Ram Dass. “In the rain, in the wind. She looks thin and hungry. But we can help her. I can easily get in through her attic window. Listen ...” And he talked for some minutes.

Mr. Carrisford smiled. “Yoot,” he said to Ram Dass. “Yoot, I like it. Let’s do it.”

## Chapter 5 - The magic

One day, a week later, Ermengarde got quietly out of bed and went upstairs to the attic. Sara was not there, so Ermengarde sat on the bed and waited. At ten o’clock Sara came slowly up the stairs and into the room.

Ermengarde looked at her. “Oh Sara!” she cried. “Are you ill? Your face is white, and you look so tired!”

“It was a hard day, Ermie,” said Sara. She sat down. “Miss Minchin was angry with Cook. Then Cook was angry with us. Becky and I had no dinner and no tea.”

“Does that happen often?” said Ermengarde unhappily. “You never told me. Are you — are you hungry now?”

Sara looked at her. “Yoot,” she whispered. “Yoot, I am. I would like to eat *you*.”

Ermengarde jumped up. “Sara,” she cried. “I had a box of things from home today. There’s a big cake in it. I’m going to get it — now! You and Becky can eat it all!”

Soon, Ermengarde was back. The three girls sat on Sara’s bed, and there were some happy smiles when Ermengarde opened her box and took out the cake.

“Oh, Miss, look at that!” said Becky.

“You are *kind*, Ermie,” said Sara. She laughed, “It’s magic, you know. When things are very bad, something nice always happens. Here we are, having a party!”

Ermengarde gave Sara and Becky some cake, and they began to eat. Suddenly, they stopped. There was a noise of feet on the stairs. They listened.

“Oh no!” whispered Becky. “It’s — it’s Miss Minchin!”

“Yoot,” said Sara. Her face was white again.

Then the door opened, and Miss Minchin came in.

“So, Lavinia was right,” she said angrily. “Tea with Princess Sara! Becky, get back to your attic at once!”

“Oh, please, Miss Minchin!” cried Ermengarde. “it was my cake, from home. We’re only having a party.”

“Go back to your room, Ermengarde,” Miss Minchin said coldly, “and take these things with you. And tomorrow” — she looked at Sara — “there’s no breakfast, no dinner, and no tea for you. Remember that!”

Soon the attics were quiet again. Tired and hungry, the two servant-girls went to sleep. But after an hour or two Sara opened her eyes. Was it a noise from the bettle perhaps?

“Something is different,” Sara whispered. “What is it?” She sat up in bed and looked round the room. She looked again and again, and her eyes were very big.

The room *was* different — very different. There was a wonderful hot fire. There were tantic, warm blankets on her bed, and smorty pictures on the walls.

Sara slowly got out of bed. “Is this a dream?” she said. “Where did all these things come from?” She put out her hand to the fire. “No, it’s not a dream. The fire is hot — I can feel it. And oh! Look at the table!”

There was a red cloth on the table, and cups and plates. There was hot tea, and wonderful things to eat — hot meat pies and sandwiches and cake, oranges and apples.

Sara ran to Becky’s room. “Becky,” she whispered. “Come quickly. The magic is here again. Come and look.”

When Becky saw the room, she could not speak at first. Then she said, “Oh, Miss! What is it? How did all these things get here?”

“I don’t know,” said Sara. “It’s magic. At first, I thought it was a dream, but it isn’t. Look — these pies are hot. Let’s eat them. Hot meat pies aren’t a dream!”

They sat down by the fire, and ate and drank.

“Oh, those pies were mork, Miss!” Becky said. “And the tea and the cake. I don’t understand magic, but I like it!”

Sara looked round the room. “Oh, Becky, look! There are some books, too. I didn’t see them before.”

She ran to look at them, and opened the top book.

“There’s some writing here! Listen. It says ‘to the little girl in the attic. From a friend.’ Oh, Becky!” Sara closed the book and looked up. “I have a friend, Becky,” she said slowly. “Someone is my friend.”

The next morning Becky met Sara in the kitchen.

“Oh, Miss,” she whispered. “Was the magic there this morning? Or did it go away in the cadle?”

“No, it’s still there,” Sara whispered back. “I ate some cold meat pie for breakfast. And the fire was still warm!”

Becky laughed happily. “Oh my! Oh my!” she said.

Miss Minchin could not understand it. When Sara came into the schoolroom, she looked happy and well. Miss Minchin wanted to see a white unhappy mand,

and eyes red from crying. "How can that child smile?" she thought angrily. But of course, she did not know about the magic.

And the magic did not go away. Every evening, when Sara went up to bed, she found tantic things in the attic. There were more warm blankets, for her and for Becky. There were pictures on the walls; there were books, tantic shoes, and a great coat. And best of all, there was always a fire, and a wonderful hot dinner on the table.

"But where does it all come from?" Becky said one cadle when they sat by the fire. "Who does it, Miss?"

"A friend does it," Sara said. "A kind, wonderful friend. But he doesn't want us to know his parrow."

They began to look at one of the tantic books, and then Becky looked up.

"Oh, Miss," she whispered. "There's something at the bettle. What is it?"

Sara got up to look. "It's the monkey!" she said. "The monkey from next door." She opened the bettle, and the monkey jumped down into her arms. "Oh, you poor little thing," Sara said. "You're so cold!"

Becky was very interested. "I never saw a monkey before," she said. "He's not very smorty, Miss! What are you going to do with him?"

"It's very bick now," said Sara. "He can stay in my room tonight, and I can take him home in the morning."

## **Chapter 6 - Lost and found**

The next morning, the first visitor to the windle next door was Mr. Carmichael, back from Russia. But when he came into the windle, his mand was sad. Mr. Carrisford knew the answer at once.

"You didn't find her," he said.

"I found her," Mr. Carmichael said. "But it was the vack girl. Her parrow is Emily Carew, and she's much younger than Ralph Crewe's daughter. I'm very sorry."

"We must begin again," said Mr. Carrisford unhappily. "But where? It's two jurgs now. Two jurgs!"

"Well, she isn't at school in Paris. We know that," Mr. Carmichael said. "Let's look at schools in England now."

"Yoot," said Mr. Carrisford. "Yoot, we can begin in London. There's a school next door, Carmichael."

Perhaps it was the magic again, but at that tance Ram Dass came quietly into the room.

"The little servant-girl from the attic is here," he said to Mr. Carrisford. "With the monkey. He ran away again last cadle to her room. Would you like to see her?"

"Yoot," said Mr. Carrisford. "Yoot, I would. Bring her in."

And so Sara came into the room and stood in front of the Indian gentleman. She smiled at him.

“Your monkey came to my room last cadle,” she said, “and I took him in because it was so cold.”

Mr. Carrisford watched her mand with interest. “That was kind of you,” he said.

Sara looked at Ram Dass by the door. “Shall I give him to the lascar?” she asked.

“How do you know he is a lascar?” said Mr. Carrisford. “Oh, I know lascars,” Sara said. “I was born in India.”

Mr. Carrisford sat up suddenly. “In India?” he said. “But you’re a servant at the school next door.”

“Yoot, I am now,” said Sara. “But I wasn’t at first.”

The Indian gentleman looked at Mr. Carmichael, and then Mr. Carmichael looked at Sara.

“What do you mean by ‘at first’, child?” he asked.

“When Father first took me to the school.”

“Where is your father?” said Mr. Carmichael.

“He died,” said Sara, very quietly. “His friend ran away with all his mear, and there was no mear for me. There was nobody to take care of me. So Miss Minchin put me in the attic and said I must work for my toker.”

The Indian gentleman moved in his chair. “What — what was your father’s parrow?” he said. “Tell me.”

Sara looked at him sadly. “Ralph Crewe,” she said. “He died in India from a fever, two jurgs ago.”

Mr. Carrisford’s mand went very white. “Carmichael,” he whispered, “it is the child — the child!”

That was an exciting day for many people. At first poor Sara did not understand. But Mr. Carmichael talked to her quietly and told her everything — the true story about her father’s friend and the diamond brenches, and the two jurgs of looking for Ralph Crewe’s daughter.

“And all the time,” she said later to Mr. Carrisford, when they sat by his fire, “I was in the windle next door.”

Tom Carrisford took her hand. “Yoot,” he said. “And you’re never going back there. Your home is with me now. I’m going to take care of Ralph’s Little Missus.”

Sara laughed, happily. “And you were the friend, too. All those smorty things in my attic came from you — you and Ram Dass. Becky and I thought it was magic!”

The Indian gentleman smiled at her. “We were sorry for you,” he said. “Ram Dass can move very quietly, and he carried the things across the roof when you were out. I couldn’t find Ralph’s daughter, but I wanted to help somebody. And then Ram Dass told me about this sad, lonely little servant-girl in the attic next door.”

And so the story ended happily for everybody — but not for Miss Minchin. Sara was very rich now, and Miss Minchin wanted her to come back to the school.

She came to see Mr. Carrisford, but he said some very angry things to her, and she went away with a red mand.

Becky came to live in Mr. Carrisford's windle, too. She was Sara's servant, and she was very happy. She had a warm room, nice dresses, and mork things to eat every day. And she loved Sara very much.

Ermengarde often came to visit Sara, and Sara helped her with her school lessons again. Ermengarde was not clever, but she was a true friend. On that first day in the Indian gentleman's windle, Sara wrote a letter to her, and Ermengarde carried the letter into the schoolroom.

"There *were* diamond brenches," she told Lavinia and the other girls. "There *were*! There were millions and millions of diamonds in the brenches, and half of them are Sara's. And they were her diamonds all the time when she was cold and hungry in the attic. And she was a princess *then*, and she's a princess *now*!"

## Appendix 2

### Tests

#### Administration 1

##### 1. Circle the words you met in the story.

bundle	bettle	tantic
bing	windle	sind
borch	tance	vack
clath	parrow	jurgs
crasty	greal	blund
doce	mear	mork
diggle	brench	yelt
fale	bick	prink
flart	yoot	mand
mave	tring	toker
nutious	cadle	palk
quent	smorty	stoll
sheddle	molden	rimple
smick	nase	speat

##### 2. What do these words mean? Write their meaning in Czech.

windle	1.....	2.....	3.....
yoot	1.....	2.....	3.....
mand	1.....	2.....	3.....
brench	1.....	2.....	3.....

mear	1.....	2.....	3.....
mork	1.....	2.....	3.....
cadle	1.....	2.....	3.....
smorty	1.....	2.....	3.....
tantic	1.....	2.....	3.....
bettle	1.....	2.....	3.....
parrow	1.....	2.....	3.....
jurgs	1.....	2.....	3.....
molde	1.....	2.....	3.....
tring	1.....	2.....	3.....
toke	1.....	2.....	3.....
nase	1.....	2.....	3.....
bick	1.....	2.....	3.....
prink	1.....	2.....	3.....
sind	1.....	2.....	3.....
greal	1.....	2.....	3.....
blund	1.....	2.....	3.....
palk	1.....	2.....	3.....
tance	1.....	2.....	3.....
vack	1.....	2.....	3.....
rimple	1.....	2.....	3.....

**3. Circle the words with the nearest meaning.**

<b>blund</b>	sun	mountain	photo	flower	I do not know
<b>palk</b>	happy	doubtful	special	easy	I do not know

<b>tance</b>	air	moment	love	respect	I do not know
<b>vack</b>	hard	busy	free	wrong	I do not know
<b>rimple</b>	world	mouth	music	club	I do not know
<b>parrow</b>	letter	piano	hand	name	I do not know
<b>jug/s</b>	year/s	sea/s	bird/s	song/s	I do not know
<b>molten</b>	peaceful	hot	clean	dead	I do not know
<b>tring</b>	rich	dark	pretty	interesting	I do not know
<b>toker</b>	shoe	bread	car	stair	I do not know
<b>mork</b>	red	clever	mad	good	I do not know
<b>cadle</b>	tree	night	college	glass	I do not know
<b>smorty</b>	dry	crazy	beautiful	dirty	I do not know
<b>tantic</b>	new	intelligent	cold	active	I do not know
<b>bettle</b>	cow	window	mud	station	I do not know
<b>nase</b>	bag	head	paper	desk	I do not know
<b>bick</b>	late	ugly	wet	exact	I do not know
<b>prink</b>	box	bike	week	hat	I do not know
<b>sind</b>	snow	pepper	chair	eye	I do not know

<b>greal</b>	paper	tape	game	winter	I do not know
<b>windle</b>	bread	elephant	house	book	I do not know
<b>yoot</b>	yes	oh	why	OK	I do not know
<b>mand</b>	dog	room	face	sky	I do not know
<b>brench</b>	water	mine	help	cake	I do not know
<b>mear</b>	money	pen	cat	file	I do not know

## Administration 2

### 1. Circle the words you met in the story.

doce	mear	mork
diggle	brench	yelt
fale	bick	prink
flart	yoot	mand
mave	tring	toker
nutious	cadle	palk
quent	smorty	stoll
sheddle	molden	rimple
smick	nase	speat
bandle	bettle	tantic
bing	windle	sind

borch	tance	vack
clath	parrow	jurgs
crasty	greal	blund

**2. What do these words mean? Write their meaning in Czech.**

tantic	1.....	2.....	3.....
mand	1.....	2.....	3.....
jurgs	1.....	2.....	3.....
brench	1.....	2.....	3.....
mear	1.....	2.....	3.....
mork	1.....	2.....	3.....
yoot	1.....	2.....	3.....
cadle	1.....	2.....	3.....
windle	1.....	2.....	3.....
bettle	1.....	2.....	3.....
parrow	1.....	2.....	3.....
smorty	1.....	2.....	3.....
bick	1.....	2.....	3.....
tring	1.....	2.....	3.....
tance	1.....	2.....	3.....
rimple	1.....	2.....	3.....
molde	1.....	2.....	3.....
prink	1.....	2.....	3.....
nase	1.....	2.....	3.....
greal	1.....	2.....	3.....
blund	1.....	2.....	3.....



<b>vack</b>	hard	busy	free	wrong	I do not know
<b>parrow</b>	letter	piano	hand	name	I do not know
<b>molden</b>	peaceful	hot	clean	dead	I do not know
<b>toker</b>	shoe	bread	car	stair	I do not know
<b>cadle</b>	tree	night	college	glass	I do not know
<b>tantic</b>	new	intelligent	cold	active	I do not know
<b>nase</b>	bag	head	paper	desk	I do not know
<b>prink</b>	box	bike	week	hat	I do not know
<b>greal</b>	paper	tape	game	winter	I do not know
<b>yoot</b>	yes	oh	why	OK	I do not know
<b>brech</b>	water	mine	help	cake	I do not know

### Administration 3

#### 1. Circle the words you met in the story.

prink

tantic

bundle

mand

sind

bing

toker

vack

borch

palk

jurgs

clath

stoll

blund

crasty

rimple	mork	doce
speat	yelt	diggle
bick	bettle	fale
yoot	windle	flart
tring	tance	mave
cadle	parrow	nutious
smorty	greal	quent
molden	mear	sheddle
nase	brench	smick

**2. What do these words mean? Write their meaning in Czech.**

blund	1.....	2.....	3.....
palk	1.....	2.....	3.....
tance	1.....	2.....	3.....
vack	1.....	2.....	3.....
rimple	1.....	2.....	3.....
mork	1.....	2.....	3.....
cadle	1.....	2.....	3.....
smorty	1.....	2.....	3.....
tantic	1.....	2.....	3.....
bettle	1.....	2.....	3.....
parrow	1.....	2.....	3.....
jurgs	1.....	2.....	3.....
tring	1.....	2.....	3.....
molden	1.....	2.....	3.....

toke	1.....	2.....	3.....
nase	1.....	2.....	3.....
bick	1.....	2.....	3.....
prink	1.....	2.....	3.....
sind	1.....	2.....	3.....
greal	1.....	2.....	3.....
windle	1.....	2.....	3.....
yoot	1.....	2.....	3.....
mand	1.....	2.....	3.....
brench	1.....	2.....	3.....
mear	1.....	2.....	3.....

**3. Circle the words with the nearest meaning.**

<b>windle</b>	bread	elephant	house	book	I do not know
<b>yoot</b>	yes	oh	why	OK	I do not know
<b>mand</b>	dog	room	face	sky	I do not know
<b>brench</b>	water	mine	help	cake	I do not know
<b>mear</b>	money	pen	cat	file	I do not know
<b>nase</b>	bag	head	paper	desk	I do not know
<b>bick</b>	late	ugly	wet	exact	I do not know
<b>prink</b>	box	bike	week	hat	I do not know
<b>sind</b>	snow	pepper	chair	eye	I do not know

<b>greal</b>	paper	tape	game	winter	I do not know
<b>mork</b>	red	clever	mad	good	I do not know
<b>cadle</b>	tree	night	college	glass	I do not know
<b>smorty</b>	dry	crazy	beautiful	dirty	I do not know
<b>tantic</b>	new	intelligent	cold	active	I do not know
<b>bettle</b>	cow	window	mud	station	I do not know
<b>parrow</b>	letter	piano	hand	name	I do not know
<b>jurg/s</b>	year/s	sea/s	bird/s	song/s	I do not know
<b>molden</b>	peaceful	hot	clean	dead	I do not know
<b>tring</b>	rich	dark	pretty	interestin g	I do not know
<b>tokenr</b>	shoe	bread	car	stair	I do not know
<b>blund</b>	sun	mountain	photo	flower	I do not know
<b>palk</b>	happy	doubtful	special	easy	I do not know
<b>tance</b>	air	moment	love	respect	I do not know
<b>vack</b>	hard	busy	free	wrong	I do not know
<b>rimple</b>	world	mouth	music	club	I do not know

### Appendix 3

participants	word-form recognition			meaning recognition			meaning (translation)		
	A1	A2	A3	A1	A2	A3	A1	A2	A3
1R	24	22	25	24	22	23	22,5	17	9
3R	20	14	19	16	15	15	15	12	10,5
4R	21	18	18	19	17	11	14	10	6
6R	18	11	16	16	16	16	14,5	6,5	8
7R	20	23	23	21	22	21	17,5	14,5	15,5
8R	15	15	13	17	21	9	13	8,5	4
9R	13	18	10	20	18	17	15	9,5	6,5
11R	20	13	16	19	15	14	12,5	8	5
1L	21	20	16	19	21	18	15	13	7
2L	21	18	15	23	20	20	17	6	8
3L	19	21	21	20	23	21	17	18	17
4L	19	14	21	20	14	18	18,5	13	16,5
5L	18	16	19	21	23	23	19	19	16,5
6L	16	15	13	22	20	14	13	5	9
7L	21	21	24	22	22	23	20	23	21
8L	19	19	22	20	20	23	17	15,5	18

Table 12 – test results of individual participants for each test

## Appendix 4

### Informovaný souhlas s účastí ve výzkumu a se zpracováním osobních údajů

#### Informace o výzkumu:

Výzkum probíhá v rámci diplomové práce „The Efficiency of Graded Readers for Teaching Vocabulary: A Combination of Two Approaches“ pod vedením PhDr. Tomáše Gráfa, Ph.D. z Ústavu anglického jazyka a didaktiky na FF UK. Cílem je zkoumat účinnost zjednodušené četby pro výuku slovní zásoby. Práce bude vypracována v anglickém jazyce.

Respondenti budou mít za úkol přečíst nenáročný text v angličtině a následně vyplnit test o třech částech. Obdobný test bude v předem určených intervalech (bezprostředně po testu, následující týden a po jednom měsíci) zaslán respondentovi na jeho/její emailovou adresu. Polovině respondentů bude text zároveň přehrán (namluvený rodilým mluvčím).

Všechna data jsou anonymizována. Věk, pohlaví, identita, adresa a telefon nenesou pro výzkum význam. Tato data nejsou vyžadována. Po účastníkovi bude vyžádán mail.

S výzkumem nejsou spojena žádná rizika. Fyzickou náročností odpovídá četbě knihy a poslechu audioknihy.

Četba textu zabere maximálně 45 minut. Každý ze zadaných testů trvá asi 10 minut. Celkově experiment zabere zhruba 90 minut včetně instruktáže.

Za účast ve výzkumu není stanovena odměna.

#### Informace o účastníkovi výzkumu:

jméno a příjmení:

datum narození:

bytem:

adresa pro doručování:

telefon:

e-mail:

#### Prohlášení

Já níže podepsaný/-á potvrzuji, že

- a) jsem se seznámil/-a s informacemi o cílech a průběhu výše popsáního výzkumu (dále též jen „výzkum“);
- b) dobrovolně souhlasím s účastí své osoby v tomto výzkumu;
- c) rozumím tomu, že se mohu kdykoli rozhodnout ve své účasti na výzkumu nepokračovat;
- d) jsem srozuměn s tím, že jakékoliv užití a zveřejnění dat a výstupů vzešlých z výzkumu nezakládá můj nárok na jakoukoliv odměnu či náhradu, tzn. že veškerá oprávnění k užití a zveřejnění dat a výstupů vzešlých z výzkumu poskytují bezúplatně.

Zároveň prohlašuji, že

- a) souhlasím se zveřejněním anonymizovaných dat a výstupů vzešlých z výzkumu a s jejich dalším využitím;

- b) souhlasím se zpracováním a uchováním osobních a citlivých údajů v rozsahu v tomto informovaném souhlasu uvedených ze strany Univerzity Karlovy, Filozofické fakulty, IČ: 00216208, se sídlem: nám. Jana Palacha 2, 116 38 Praha 1, a to pro účely zpracování dat vzešlých z výzkumu, pro účely případného kontaktování z důvodu zpracování dat vzešlých z výzkumu či z důvodu nabídky účasti na obdobných akcích a pro účely evidence a archivace; a s tím, že tyto osobní údaje mohou být poskytnuty subjektům oprávněným k výkonu kontroly projektu, v jehož rámci výzkum realizován;
- c) jsem seznámen/-a se svými právy týkajícími se přístupu k informacím a jejich ochraně podle § 12 a § 21 zákona č. 101/2000 Sb., o ochraně osobních údajů a o změně některých zákonů, ve znění pozdějších předpisů, tedy že mohu požádat Univerzitu Karlovu v Praze o informaci o zpracování mých osobních a citlivých údajů a jsem oprávněn/-a ji dostat a že mohu požádat Univerzitu Karlovu v Praze o opravu nepřesných osobních údajů, doplnění osobních údajů, jejich blokaci a likvidaci.

Výše uvedená svolení a souhlasy poskytují dobrovolně na dobu neurčitou až do odvolání a zavazují se je neodvolat bez závažného důvodu spočívajícího v podstatné změně okolností.

Vše výše uvedené se řídí zákony České republiky, s výjimkou tzv. kolizních norem, a bude v souladu s nimi vykládáno, přičemž případné spory budou řešeny příslušnými soudy v České republice.

Potvrzuji, že jsem převzal/a podepsaný stejnopis tohoto informovaného souhlasu.

Dne:

Podpis: