

Words in school  
*A study of vocabulary learning support  
in the Swedish EFL classroom*

Denise Bergström

English and Education



# WORDS IN SCHOOL

A study of vocabulary learning support  
in the Swedish EFL classroom

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Epigraph: *Första språket* by Mattias Alkberg

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*Orden hänger som druvklasar i taken  
De är allas det är bara att ta dem  
Ännu är inte en enda regel skriven  
Så säg och gör vad du vill med dem*

Mattias Alkberg

*Words dangle like clusters of grapes from the ceiling  
They belong to us all, just grab them  
Rules are yet to be written  
Say and do whatever you want with them*



## Abstract

Vocabulary is a central but difficult aspect of learning English. EFL students face a considerable challenge in acquiring a vocabulary sufficient for communication, which means knowing many words and having a deep and varied knowledge of them. Researchers therefore argue that students need support to succeed in this endeavor, especially in an instructional context, where time and language exposure are limited. Although vocabulary research has provided many insights as concerns the nature of vocabulary development, little is known about vocabulary learning in school. This thesis investigates vocabulary learning support in the Swedish secondary school EFL classroom in four empirical studies. The overall purpose of the studies was to illuminate different study objects that structure and organize the EFL classroom from a vocabulary perspective. It comprises two qualitative interview studies with teachers ( $n = 14$ ) and materials developers ( $n = 8$ ) respectively, and two content analyses of teaching materials focusing on the target words and learning conditions provided in the reading texts and the accompanying vocabulary exercises.

The results shed light on how vocabulary is positioned and how the vocabulary component is treated in the classroom. The findings from the interview studies show that while the teachers and the materials developers stated that vocabulary is important, they also attested to not perceiving vocabulary as a prominent aspect of the EFL classroom. This was found to be a result of their understanding of vocabulary development as an incidental process. Much in the same vein, the interviewees expressed that they do not prioritize working explicitly with vocabulary in class and rely on words to be acquired when students engage in other activities. The results also highlight that the vocabulary component in the classroom is mainly unplanned, in regard to both target words and vocabulary learning activities. Neither the teachers nor the materials developers reported any systematic approaches to planning vocabulary instruction. Similarly, the teaching material analyses reveal that the vocabulary component is not structured in a way that is in accordance with research-based suggestions. The present thesis indicates that the Swedish EFL classroom is unlikely to provide sufficient vocabulary learning support, which, in turn, can have considerable implications for students' learning in school. The findings are discussed in relation to central contextual factors such as communicative language teaching, the Swedish curriculum and extramural English.

**Keywords:** English as a foreign language, vocabulary learning, teacher cognition, materials development, teaching materials

## Acknowledgments

The journey towards this thesis began on an ordinary day in January 2016. I attended my first lecture in the English B course, called *The history of the English language – A crash course*. Our teacher told us, with contagious enthusiasm, that present-day *bread* probably received its meaning via a semantic loan from Old Norse and there and then, a new world opened up to me. From that moment on, I have been obsessively fascinated with the English language with all its perks and peculiarities. With time, this interest grew from being an interest in only the language as such and I realized that I also want to support others in learning this strange but utterly lovely language. At the end of my PhD studies, I am deeply thankful for the opportunity to spend five years learning more about English, how it is learned and how English language teaching works. I have had so much fun. I am deeply indebted to a number of people who have been important to me whilst writing this thesis and it is now finally time for me to attempt to express my gratitude.

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*Denise*

Luleå, October 2023



## List of papers

- I. Bergström, D., Norberg, C., & Nordlund, M. (2022). “Words are picked up along the way” – Swedish EFL teachers’ conceptualizations of vocabulary knowledge and learning. *Language Awareness*, 31(4), 393–409. <https://doi.org/10.1080/09658416.2021.1893326>
- II. Bergström, D., Norberg, C., & Nordlund, M. (2023). ”The text comes first” - Principles guiding EFL materials developers’ vocabulary content decisions. *Scandinavian Journal of Educational Research*, 67(1), 154–168. <https://doi.org/10.1080/00313831.2021.1990122>
- III. Bergström, D., Norberg, C., & Nordlund, M. (2022). Do textbooks support incidental vocabulary learning? – A corpus-based study of Swedish intermediate EFL materials. *Education Inquiry*. Advance online publication. <https://doi.org/10.1080/20004508.2022.2163050>
- IV. Bergström, D. (2023). ‘Solve the crossword’: An analysis of task design in EFL materials from a vocabulary perspective. *The Language Learning Journal*. Advance online publication. <https://doi.org/10.1080/09571736.2023.2193833>

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## Abbreviations

BNC	British National Corpus
CA	Content analysis
CEFR	Common European framework of reference for languages
CLIL	Content and learning integrated learning
CLT	Communicative language teaching
COCA	Contemporary Corpus of American English
EE	Extramural English
EFL	English as a foreign language
ILH	Involvement Load Hypothesis
L1	First language
L2	Second language
NAE	National Agency for Education
RTA	Reflexive thematic analysis
VST	Vocabulary Size Test

## Typographic conventions

ILH factors	Initial capital letter: Evaluation
Lemma	Small caps: WRITE
Linguistic forms	Italics: <i>instruction</i>
Meaning of linguistic forms	Single inverted commas: 'teaching'
Quotations:	Double inverted commas: "..."
Terms	Italics: <i>vocabulary size</i>
Word family	Small caps: SING



# 1. Introduction

*the real intrinsic difficulty of learning a foreign language  
lies in that of having to master its vocabulary*  
(Sweet, 1899, p. 66)

As English is the main language of communication in business, science and culture, knowledge of the language is increasingly important. This thesis is situated in a Swedish context, where English has a prominent position and mastery of the language is seen as a prestigious ability (Sundqvist, 2020). In Swedish schools, all students are expected to learn English and reach a B1 level of English proficiency during the ten-year compulsory school (Skolverket, 2012, 2022b), which means having an intermediate level of communicative competence in the language. As all students should reach this goal, school needs to ensure that students are provided with adequate opportunities to learn English in class. While this is a central responsibility for school, it is unclear whether the classroom supports learners sufficiently in this respect. Studying the support provided in an instructional context is particularly relevant in a Swedish setting, where the English subject risks being taken for granted, as a result of the vast exposure to the language that many adolescents receive outside of school (cf. Henry, 2019). Even though it is true that much English can be learned outside of the classroom, school yet has a responsibility for all students' learning and the classroom is the one learning environment shared by all students. It therefore needs to provide sufficient support to ensure that students' success is not dependent on spare time activities. In this thesis, the attention is directed to the English as a foreign language (EFL) classroom and the learning support provided to all students.

A central component of reaching communicative competence in English is learning its vocabulary. Lexical knowledge is crucial for both comprehension

and production of the language. As an example, Laufer and Ravenhorst-Kalovski (2010) found that learners need to know 98% of the words in a text to understand its content. Vocabulary is hence essential for reading comprehension. Much in the same vein, what words a learner knows is decisive of what meanings can be conveyed (Webb & Nation, 2017). Consequently, attaining proficiency in English is virtually impossible without substantial vocabulary knowledge. Milton (2008) goes as far as stating that “failure to gain an adequate vocabulary can have catastrophic consequences for communication, far more so than with other elements of the foreign language such as its grammar” (p. 228). Accordingly, becoming a proficient user of English means acquiring an extensive vocabulary.

Learning a vocabulary sufficient for communication in English is, however, a considerable and complicated endeavor, both in terms of the vocabulary that needs to be learned and how this learning occurs. Nation (2006) reports that knowledge of 8-9,000 word families is necessary for comprehension of authentic texts in English. Moreover, for successful communication, learners need to have a deep knowledge of words, extending beyond connecting a word to its meaning (Schmitt, 2014). To add to this challenge, research has also suggested that what words are learned makes a difference in proficiency, as learning the most frequent words in a language facilitates communication more than infrequent words (e.g., Laufer & Nation, 2012). Not only do learners need to learn many words and much about these words, the process of learning vocabulary is also complicated and time-consuming. Studies indicate that learners need to encounter the same words repeatedly to learn them and some even propose that the same word should be encountered more than fifteen times to be learned (Brown et al., 2008; Waring & Takaki, 2003). To succeed in learning English, learners thus face an extensive vocabulary learning task that can be challenging, especially in a foreign language context where the time and target language input are limited (e.g., Cobb, 2010; Laufer, 2005). Given the centrality and complexity of word learning, this thesis takes as its starting point the premise that vocabulary development needs structured support in the classroom, to ensure that students are provided with sufficient learning opportunities, as regards target vocabulary and conditions for learning (cf. Newton, 2020).

Previous research has provided much knowledge about what vocabulary learners need to know and how they can be supported in acquiring this

vocabulary (Nation, 2011). However, there are few studies investigating whether this body of knowledge has an impact on classroom practice and if students receive the support they need. Vocabulary research in an educational context is therefore much needed to discern whether school fulfills its responsibility. It is important to note that this thesis does not add to the knowledge base concerning how vocabulary is best learned or what supports vocabulary development. Instead, it adopts an educational perspective on word learning by focusing on vocabulary learning support in the classroom. It contributes to the field of vocabulary research on both a general and a specific level. In general, it shows the relationship between vocabulary theory and teaching practice. Specifically, it highlights the vocabulary learning opportunities provided in Swedish schools and whether these constitute sufficient support for learners.

### **Aim and research questions**

The overarching aim of this thesis is to illuminate the support for students' vocabulary development in the Swedish EFL classroom. Drawing on the complexity and centrality of vocabulary for EFL learning, it builds on the premise that students need structured support in their vocabulary development in school to ensure that they progress in their English language learning, in line with the objectives stated in the curriculum. To identify the support, the present thesis focuses on study objects that impact the organization of the classroom in different ways, namely the beliefs of teachers and materials developers as well as the design of teaching materials. It thus investigates both ideas and tools that structure classroom teaching and affect the learning support provided. In this way, it seeks to trace the vocabulary learning opportunities offered in the Swedish EFL classroom.

This thesis answers the following overarching questions:

1. How are vocabulary learning and vocabulary learning objectives conceptualized by Swedish EFL teachers and materials developers?
2. What target vocabulary can students learn from texts and vocabulary exercises in EFL materials used in Swedish schools?
3. What learning conditions are provided in the texts and exercises in the investigated EFL materials?

To answer these questions, four empirical studies were carried out. RQ1 is answered in Studies I and II, which are two interview studies. Study I focuses on Swedish EFL teachers and their conceptualizations of vocabulary knowledge and learning. Study II concerns Swedish materials developers and what vocabulary principles guide them when constructing teaching materials. RQ2 and RQ3 are answered in two textbook analyses (Studies III and IV). In Study III, the texts in five series of EFL teaching materials are analyzed in terms of their lexical input and recycling of words. Study IV reports an analysis of the word-focused exercises in three series of EFL teaching materials regarding the target vocabulary and learning conditions provided in the tasks. In the thesis frame, the answers to these three research questions are synthesized and discussed and overarching patterns in the learning opportunities provided are mapped.

## Overview of the thesis

The present thesis comprises a thesis frame and four appended studies in the form of published articles. The frame provides an overview of the field of vocabulary studies and a context for the thesis. It has an overarching perspective where the four individual studies are synthesized and discussed in relation to their joint contribution. The appended studies are referred to as Studies I–IV. In the individual studies, the results are presented in detail.

The structure of the thesis frame is as follows. The introductory chapter with the aim and research questions is followed by Chapter 2, which provides a background to the thesis. In this chapter, research regarding vocabulary knowledge and learning is reviewed. Chapter 3 presents important contextual factors for understanding the results of the studies. The methods and materials used in the studies are presented in Chapter 4. In Chapter 5, the results of the studies are summarized and synthesized and these results are discussed in Chapter 6, where suggestions for further research are also included.

## 2. Background

To discern the support provided for vocabulary learning in the Swedish EFL classroom, it is necessary to consider *what* vocabulary students need to know and *how* their learning can be supported. In this chapter, vocabulary research is reviewed with a focus on these questions. In terms of *what*, the theoretical construct *word knowledge* is presented as well as what constitutes target vocabulary for EFL learners. In relation to *how*, two main processes of vocabulary learning, namely incidental and intentional learning, and how these processes can be facilitated are discussed.

### Word knowledge

The impact of word knowledge on language proficiency can hardly be overstated, as vocabulary has a determining effect on both the comprehension and production of a language (Schmitt, 2008). A central learning task for EFL students is thus to acquire a substantial vocabulary. However, a common experience for learners and teachers is that although learners know many words, they struggle to express themselves and comprehend authentic language (e.g., MacArthur, 2010). This is because word knowledge is not only a question of connecting a form (e.g., *dog*) with its meaning (i.e., domesticated canine mammal). While this initial step of language learning is important, vocabulary researchers stress that language proficiency is also a result of what is known about a word. Therefore, Anderson and Freebody (1981) introduced the division of word knowledge into *size* (or *breadth*) and *depth*. The division reflects the fact that attaining a level of word knowledge that aids fluency in a language is a complex and varied process. Webb (2012), for example, states that considering depth is important when conceptualizing word knowledge, as size does not in itself ensure proficient use of a language, which should be the goal of language learning. For a learner or a teacher, understanding the

multifaceted nature of word knowledge is important, to ensure that the objective and focus in the classroom go beyond the number of words known.

### *Vocabulary size*

A learner has to acquire many words to become proficient in a language. The term *vocabulary size* reflects the quantitative aspect of word knowledge. Gyllstad (2013) defines the development of vocabulary size as “the building of a repository of vocabulary items” (p. 14). The construct is typically understood as being the number of words for which the learner can connect the form to a meaning (Gyllstad, 2013). Vocabulary size is commonly divided into receptive and productive vocabulary size, distinguishing between the ability to recognize a word and the ability to produce it. This division shows that understanding a word and using it are different levels of knowledge (cf. Webb, 2008). In empirical studies, a learner’s vocabulary size is usually established by vocabulary tests, where learners are tested on a number of items that are generalized to reflect the size of their entire lexicon. As an example, the Vocabulary Size Test (VST; Nation & Belgar, 2007) measures learners’ receptive vocabulary size by their ability to connect an English word with its correct definition. The test comprises ten words of the thousand most frequent words in English and ten from the 1,001 to 2,000 most frequent words and so on. A learner’s score is then multiplied by 100 to approximate their vocabulary size. In vocabulary research, many studies have demonstrated the importance of vocabulary size for language comprehension by calculating the lexical demands posed by authentic discourse (e.g., Nation, 2006; Webb & Rodgers, 2009a). There are, however, no clear methods for establishing the vocabulary size needed for successful use, as this depends on what the learner wants to communicate. Nevertheless, many studies indicate that vocabulary size predicts both spoken and written ability in English (e.g., Milton et al., 2010; Shi & Qian, 2012). Vocabulary size thus impacts a learner’s ability to both comprehend and use the target language.

In vocabulary research, the lexical demands of a language are typically assessed in terms of *lexical coverage*, which refers to the proportion of known words in a text or spoken discourse. As an example, if a learner reads a text that is 100 words long and ten words are unknown, the learner has 90% lexical coverage of the text. To be able to use the term in an educational context, the

first step is to establish the proportion of words that a learner needs to know to comprehend the content of a text. This has been debated in vocabulary research for a long time. An early suggestion from Laufer (1989) was that learners comprehend texts when they know 95% of the words in the text. Hu and Nation (2000) challenged this figure and asserted that 98% text coverage is needed for unassisted comprehension. This is also the coverage figure identified by Laufer and Ravenhorst-Kalovski (2010) in their large-scale study with 745 participants in Israel but they add that 95% lexical coverage is sufficient for reading with support. Similar results are reported by Schmitt et al. (2011) in their study with 661 participants from different countries. They conclude that there is a clear relationship between text coverage and reading comprehension and that 98% coverage ensures adequate comprehension, especially of academic texts. While Nation (2006) argues that the lexical coverage figures from written texts can be applied to spoken discourse, van Zeeland and Schmitt (2013) suggest that 95% coverage suffices for relatively good comprehension of informal spoken narratives. However, they acknowledge that 98% may be needed if more detailed comprehension is required. These studies all demonstrate that the lexical demands posed by authentic language are high and that reading and listening comprehension are dependent on a learner's vocabulary size.

With the help of lexical coverage, researchers have also sought to establish the vocabulary size learners need to reach a coverage level sufficient for comprehension of spoken and written discourse in English using corpora<sup>1</sup>. Nation (2006), as an example, analyzed the British National Corpus (BNC) to determine the vocabulary size necessary to comprehend authentic English. He found that knowledge of the 8–9,000 most frequent word families<sup>2</sup> leads to 98% coverage of novels and newspapers and the corresponding demand for understanding unscripted spoken English is the 6–7,000 most frequent word families. Similar lexical demands for spoken English are presented by Adolphs and Schmitt (2003), namely that knowledge of 5,000 word families is required for 96–97% text coverage in the spoken parts of the BNC and the Cambridge and Nottingham Corpus of Discourse in English. Even though these figures

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<sup>1</sup> A corpus (pl. *corpora*) is a collection of texts compiled to characterize a language.

<sup>2</sup> A word family comprises a base word and its inflected and derivational forms, such as the verb *write* and forms like *writes*, *writing*, *unwritten* and *writer*. See the section “Defining a word” for a further description of the terminology.

are somewhat lower than for written English, the vocabulary size needed to comprehend spoken English is still considerable. While lexical coverage figures from general corpora can give valuable insights regarding the vocabulary size necessary, figures from specific genres can show the informal lexical demands facing learners in their spare time. In relation to this, Webb and Rodgers' (2009a, b) studies on the lexical coverage in English TV shows and movies are illuminative. They report that 95% text coverage of English TV shows is reached when knowing the 3,000 most frequent word families and that knowledge of 7,000 word families suffices for 98% text coverage. The figures for comprehension of movies are similar. Although the results differ in terms of the exact number of words necessary for comprehension of written and spoken English, these studies demonstrate that learners have to acquire a substantial amount of vocabulary to be successful in comprehending English. Learners of English thus face a considerable learning task in terms of vocabulary size.

### *Vocabulary depth*

It does not, however, suffice to know many words in a language. Learners also need to acquire a deep understanding of a word to be able to use and comprehend it in varied contexts. Vocabulary research refers to this aspect of word knowledge as *vocabulary depth*. Whereas vocabulary size refers to the quantitative aspects of word knowledge, depth highlights the qualitative features that go beyond a form-meaning connection (Gyllstad, 2013) and, as such, offers a broader understanding of a learner's lexicon and what it comprises. There is, however, no agreement in the field concerning how the term should be defined (Webb, 2012). According to Meara (2005), vocabulary depth concerns the organization of the mental lexicon and the connection between words and concepts. Daller et al. (2007), on the other hand, view it as knowledge of different aspects or components of a word. Although it is difficult to pinpoint what the construct should mean exactly, the term provides a useful perspective by broadening the understanding of vocabulary knowledge (Schmitt, 2014) and is important to consider in a vocabulary learning context. While vocabulary depth can be described in many different ways, this thesis draws on a frequently used framework, namely Nation's (2001, 2022) taxonomy of word knowledge (see Table 1). It is a suitable tool to illuminate the complexity of vocabulary knowledge, which highlights aspects necessary to

consider in the classroom. Nation’s taxonomy should be seen as indicating ideal word knowledge, in the sense that it does not define what is needed to know a word (cf. Schmitt & Schmitt, 2020). Rather, knowledge of all the aspects should be seen as complete mastery of a word. The framework shows the variety of knowledge aspects that learners can acquire and it also encompasses a division into receptive and productive knowledge.

**Table 1.**

*Aspects of word knowledge (Nation, 2022, p. 54)*

<b>Form</b>	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognisable in this word?
		P	What word parts are needed to express the meaning?
<b>Meaning</b>	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concepts and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
<b>Use</b>	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency...)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

*R = receptive, P = productive*

As can be seen in Table 1, the three main aspects of knowing a word in this framework are knowledge of form, meaning and use. One question per knowledge category is also provided to illustrate what it means to know a word in that respect. It demonstrates that a learner faces the challenge of learning spelling, phonology, morphology, semantics, grammatical and collocational patterns, and sociolinguistic features of a word (see also Nation, 2020). While the taxonomy illuminates what may play a part in knowing a word, it does not show how the components are related to each other, their order of acquisition or whether they have different relative contributions to proficiency (González-Fernández & Schmitt, 2020). This means that the list should not be

(González-Fernández & Schmitt, 2020). This means that the list should not be considered a reflection of the process of acquiring a word or of how word knowledge is stored. It does, however, highlight the complexity of acquiring depth of vocabulary and that learners have to go far beyond a form-meaning connection in their vocabulary learning.

The nine categories in Nation's (2022) framework reflect the wide array of knowledge components that can assist use and comprehension of a language. Nation (2022) emphasizes that the learning processes of the different aspects may differ substantially. As an example, learners are likely to pick up the grammatical and collocational patterns of a word by encountering the word in discourse but it is more difficult for a learner to discern meaning and constraints on use in a non-instructed context, as these may be less salient in a text. Different activities can thus support the acquisition of different features of a word. The acquisition of word knowledge aspects has also been empirically investigated by González-Fernández and Schmitt (2020) in a study with Spanish EFL learners. Their results indicate that form-meaning connections are acquired early and that collocational knowledge is learned earlier than may have been previously believed. They also found that knowledge of word parts and polysemy are difficult for learners and take longer to learn. When investigating the relationship between aspects, they conclude that the components of word knowledge are interrelated and that learning one facilitates the learning of others. Their results have also been corroborated by González-Fernández (2022), using the same tests on EFL learners with either Spanish or Chinese as their L1, highlighting that the patterns extend over several language backgrounds. These studies show that the framework cannot be understood as comprising isolated parts that are learned independently.

When understanding vocabulary depth using Nation's (2022) framework, it is clear that word knowledge is complex and that vocabulary learning is a varied process, entailing more than connecting a form to a meaning. As suggested by Schmitt and Schmitt (2020), this taxonomy can support the language classroom as it brings attention to the fact that more features of a word should be attended to than a form-meaning connection. It is important to remember, however, that it just reflects the depth of knowledge of individual words and not the depth of the entirety of a learner's lexicon (Meara & Wolter, 2004). Nevertheless, when considering what knowledge learners have to develop, Nation's framework offers a fruitful perspective that

demonstrates that a width of activities and word aspects has to be considered in the classroom, if learners are to gain a varied knowledge base that aids them in communicating in their L2.

## Target vocabulary

When learning vocabulary, it is not only important to acquire a vocabulary of considerable size and depth. The impact of having a large and varied vocabulary is also contingent on what words constitute a learner's vocabulary. Especially for foreign language learners, where the exposure to the L2 might be limited, useful words have to be learned, to facilitate the use of the language (cf. Webb & Nation, 2017) and to ensure that learners feel that they progress and develop in their learning. An important question in the EFL classroom is thus what constitutes suitable target vocabulary for a student group. A commonly proposed approach to deciding on the pedagogical value of words is the frequency principle, where target words are chosen based on their frequency in general English (Laufer & Nation, 2012; Nation, 2022). The principle and its application in a classroom context are presented here, after a definition of the term *word*, which is necessary because the assertion of what should constitute target vocabulary depends on how a word is defined. This thesis has a focus on the learning of single words. Hence, as the description of target vocabulary and words in this section does not address formulaic language.

### *Defining a word*

While all speakers of a language have a good intuitive idea of what a *word* is, there is no comprehensive linguistic definition that accounts for the term. In its most simple form, a word can be considered an orthographic unit, separated by spaces. However, in English, for example, some intuitive words comprise two orthographic units, for instance, *living room*. Although these units are separated by spaces, they have one united meaning. Moreover, agglutinative languages add syntactic information in affixes, making one orthographic unit several words in meaning, such as *merelle* in Finnish, consisting of *meri* ('sea') + *lle* ('to'), meaning 'to the sea'. Languages also comprise many homonyms, such as English *cut* (noun) and *cut* (verb), which look the same but have

different meanings and grammatical patterns. In everyday use, this can be solved by defining a word as a unit with one meaning (cf. Schmitt & Schmitt, 2020). For research purposes, this description is difficult to adopt, as it requires very fine-grained manual analysis. Moreover, in vocabulary research, the definition of word is not only a theoretical concern. It has methodological consequences as well, as words constitute the counting units in lexical analyses, such as lexical coverage studies or studies on learners' vocabulary sizes. Kremmel (2021) argues that vocabulary research is not dependent on one shared counting unit for all studies and that the counting unit should be decided based on the purpose of the study instead (see also Milton, 2009).

In descriptive studies, two commonly used operationalizations are *token* and *type*. The most detailed counting unit is token. A token is an individual word, separated by spaces. The previous sentence thus contains nine tokens (also called *running words*). In a vocabulary research context, the usefulness of tokens is limited (Nation, 2022). They are primarily used to count the number of words in a text and how many words a learner reads per minute, which means that each instance of an orthographic word will be counted. If a text has 37 instances of the article *the*, this will be seen as being 37 words in the word count. In contrast, type reflects unique orthographic forms. This means that the sentence "I do know something that you do not know" comprises nine tokens, but only seven types, as *do* and *know* occur twice. Milton (2009) proposes that type is a more meaningful unit when trying to understand learners' vocabulary knowledge, as it is important to know how many different words they can use rather than how many (reoccurring) words they can produce. Types may however be too specific for generalizable and overarching studies, according to Gablasova and Brezina (2021). Whereas both types and tokens are used as counting units in corpus-based studies, they are less frequently used in vocabulary research, which possibly is an attempt by researchers to use units that reflect how words are stored in the mind instead.

Even though types give valuable insights concerning the lexical characteristics of a text, it is unlikely that learners' lexicons are organized this way. Although *sing* and *sings* are two different types, these forms are most likely stored together in a speaker's mind, as they have the same meaning (Aitchison, 2012). Therefore, vocabulary researchers mainly use larger counting units, such as *lemmas* or *word families* to characterize texts, lexical demands and learners' lexicons. A lemma is a base word and its inflections. The lemma RELY

includes *rely*, *relies*, *relied* and *relying*. With a lemma-based approach, it is expected that learners are able to inflect the word and extend their knowledge of one orthographic unit into the other inflectional forms. A word family, on the other hand, comprises both the inflectional and derivational forms of a word, which means that besides the previously mentioned forms, the word family for RELY also encompasses forms such as *reliable*, *unreliable*, *reliability* and *reliant*. When adopting this counting unit, knowledge of one word form is assumed to include the ability to not only inflect but also form derivations of the word. Word families are thus the most inclusive counting unit and lemmas are considerably narrower in scope. Milton (2009) states that a word count based on word families should be multiplied by 1.6 for a rough estimate of the lemma count. What counting unit is used has a large impact on the vocabulary target presented to learners. For example, Nation (2016a) found that the 1,000 most frequent word families in the corpus-based list BNC/COCA correspond to 3,281 lemmas and 6,859 word types. This means that when figures concerning the vocabulary demands of a text are presented, the reader has to be aware of the fact that the figures do not relate to actual orthographic words but rather groups of words.

### *The relative value of words*

Approaching vocabulary learning quantitatively and setting a numerical vocabulary learning objective is useful, as students need to acquire many words. However, as pointed out by Milton and Alexiou (2020), this “is a simplification that requires qualification” (p. 12), as learners cannot just learn *many* words. Rather, some words will be more useful to students and therefore more important to learn for general purposes (cf. Laufer & Nation, 2012). This is especially the case for foreign language learners, who often suffer from a scarcity of input, which means that acquiring the most useful words will aid them more in their development (Dang et al., 2022a; Nation, 2022). The position that words have different value to language learners is based on an understanding of language that stems from Zipf’s (1936) law, which shows that words are systematically distributed in language in terms of how often they occur. More specifically, Zipf’s law states that the frequency of a word is inversely related to its frequency rank. This means that the most frequent word in the language occurs twice as often as the second most frequent word, three

times as often as the third most frequent one and so on (Edwards & Collins, 2011).

A large proportion of English is comprised of a small number of tokens that occur many times. It has been suggested that the thousand most frequent words make up as much as 75–80% of the tokens in texts in English (Milton, 2009; Nation, 2014). Knowing these frequent words will thus support students in using and understanding English more than knowledge of words that occur less frequently. As an example, the BNC only comprises 60 instances of the word *twang*. This word is hence less likely to aid students' understanding of a text than a word like *think*, which occurs over 87,000 times in the same corpus. Moreover, Schmitt (2010) stresses that it is reasonable to expect frequent words not to be bound to a specific register, which further attests to their usefulness for a learner. Following these insights concerning language, vocabulary researchers argue that vocabulary teaching should follow a frequency principle (Vilkaitė-Lozdienė & Schmitt, 2019), where the frequency of words in general English decides their pedagogical value.

Adopting a frequency approach to word learning has been facilitated by analyses of large general corpora of English, as they can be used to establish the frequency of different words in the language. With the help of corpora, researchers like Nation (2016b) have compiled frequency-based word lists, where the words of a language are gathered based on their frequency. These lists are typically word family-based<sup>3</sup> and group the vocabulary into bands of thousands. The first frequency band (1K) comprises the thousand most frequently occurring word families and the second frequency band (2K) the 1,001–2000 most frequent word families and so on. A commonly used frequency list is Nation's (2017) BNC/COCA 1–25K list, which includes information from two large corpora of British and American English, respectively. These lists can be used to analyze language and also to set vocabulary learning targets.

While individual frequency bands reflect usefulness, vocabulary researchers commonly group words together into larger categories to offer guidance about their relevance for language learning. For instance, Nation (2001) proposed a division into high- and low-frequency words, where the 2,000 most frequent

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<sup>3</sup> The development of lemma-based word lists has, however, increased more recently. See, for example, Brezina and Gablasova's (2015) *New General Service List*.

words are considered the high-frequency words of English and consequently the most important for learners. However, further research led to a now commonly used framework, developed by Schmitt and Schmitt (2014), where words are divided into three groups, based on their frequency. In this framework, the 3,000 most frequent word families are considered high-frequency and the 3,001–9,000 word families are referred to as mid-frequency words. Words from the tenth frequency band and onwards are considered to be of low frequency. Schmitt and Schmitt argue that not only the high-frequency words are necessary for successful language use and stress the importance of learning mid-frequency words as well. Whereas high-frequency words are important for an initial surge in vocabulary size (Elgort & Nation, 2010), mid-frequency words are necessary for more advanced learners and the progression from beginner-level proficiency (Qian & Lin, 2020).

Although frequency is an indicator of usefulness, questions have been raised regarding the extent to which corpus information can be the sole guidance for lexical selection in the language classroom (e.g., Stein, 2017). While frequency-based word lists indicate the usefulness of words in different authentic contexts, they might not reflect the language that learners actually encounter or need (Dang et al., 2022a). Dang and Webb (2020) hypothesize that EFL teachers do not use frequency-based word lists in their teaching because of a discrepancy between the research-based understanding of their usefulness and how teachers perceive their students' needs. When investigating the correspondence between high-frequency words and teachers' assessment of their usefulness, Dang et al. (2022a) identified an overlap between what words teachers see as important and corpus frequency but also considerable discrepancies. Similarly, in Dang et al.'s (2022b) study, they investigated the relationship between high-frequency words, learner vocabulary knowledge and teacher perceptions of usefulness to see what affected learner knowledge more. They found that both frequency and teacher judgments of usefulness correlate with learner knowledge, but teacher knowledge more so than frequency. This means that even if word frequency predicts word knowledge, a teacher's understanding of usefulness is a stronger predictor. The results further point to the importance of EFL teachers when it comes to what words students learn in school, as their perceptions predict learning more than frequent occurrence in naturalistic discourse. These results also show that it is crucial that teachers have knowledge about word frequency, as the words they

consider important are more likely to be taught and learned in class. Even though these results do not question the usefulness of frequency-based word lists, they problematize using frequency as the sole criterion for lexical selection, as it may not correspond to the context-specific needs of learners. It can thus be concluded that lexical selection in the classroom should be based on frequency information from corpora but be complemented with teachers' own assessment of importance.

## Vocabulary learning

This chapter has so far described the substantial vocabulary learning task that students face. In relation to this, it is also important to consider how vocabulary is learned. While an L1 learner primarily learns words by unconsciously picking them up in encounters with the language, an L2 learner typically acquires vocabulary both through an unconscious process and a conscious attempt to do so. This reflects the two main processes of learning vocabulary, namely *incidental* and *intentional learning*. In the language classroom, vocabulary can be developed in both these ways and these processes should therefore be considered in school to ensure vocabulary learning support. In this section, the terms are defined and a review of their vocabulary learning effects is provided. The section also includes a description of important conditions that can facilitate vocabulary learning. These conditions highlight how the classroom can be organized to support learning.

### *Incidental vocabulary learning*

Incidental vocabulary learning can be likened to the learning that occurs when acquiring an L1. A child does not pay particular attention to the language and yet, vocabulary is developed. In a similar way, a foreign language learner can pick up vocabulary without intending to, for example, when watching TV or reading a book. A learner undoubtedly engages in many English-language activities where vocabulary is not the focus, both in and outside of the classroom. In students' spare time, most encounters with English are likely to be incidental learning opportunities, as learner-initiated activities are mostly not focused on vocabulary learning (cf. Sundqvist & Sylvén, 2016). Activities of this kind are also frequently occurring in the classroom, such as when students practice their listening comprehension or read texts.

Defining incidental learning as learning without intention has, however, been criticized. Bruton et al. (2011) question whether intention-free learning can be studied in a valid way, as learners may try to learn words, even when they are not asked to do so. For instance, when encountering a novel word, a learner may pay attention to the word and try to learn it, without word-focused instructions. This was found in Godfroid et al.'s (2013) eye-tracking study, where they noted that students focused on novel vocabulary, which also led to larger learning gains, even under incidental learning conditions. The term is therefore not defined as intention-free learning in this thesis. Rather, following Webb (2020), incidental vocabulary learning is seen as the result of an activity without explicit vocabulary learning purposes. Defining incidental learning in this way does not rule out intention on behalf of the learner. Instead, the focus is on the purpose of the task, which Webb (2020) argues increases the ecological validity<sup>4</sup> of the term as teachers and learners are more likely to distinguish between activities based on purpose than degree of intention. Incidental vocabulary learning is thus understood as learning occurring from activities that are not primarily focused on vocabulary development, such as communicative tasks and reading for content.

Incidental vocabulary learning has been extensively studied in the literature and research unanimously indicates that learners do pick up vocabulary from engaging in meaning-focused tasks (see e.g., Brown et al., 2008; Horst, 2005; Vidal, 2003). The most studied activity is reading. Pigada and Schmitt (2006), as an example, report a case study with a learner of French, where they investigated whether one month of extensive reading would improve the learner's knowledge of spelling, meaning and grammar of a large number of target words. Knowledge of 65% of the target words was enhanced to some extent after the month of extensive reading. The enhancement of spelling was stronger than for meaning and grammar, although all aspects were improved, showing that much word knowledge can be gained from reading. Similarly, significant vocabulary learning gains from reading were identified in Webb and Chang's (2015b) study with Taiwanese EFL learners. About 44% of the target words were known on immediate post-tests and about 37% of the words

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<sup>4</sup> The term *ecological validity* seeks to capture whether research reflects the naturalistic situations in, for instance, the classroom (Cohen et al., 2017). In this context, it means using variables that correspond to what happens in class rather than manipulating variables to work in an experimental setting.

were still known three months later. As for watching TV, Puimège and Peters (2019b) report incidental vocabulary gains among Belgian EFL learners who watched one 30-minute TV program, which suggests that even one single exposure can have vocabulary learning effects.

Even if research shows that incidental exposure leads to learning, the gains are relatively small. In Waring and Nation's (2004) review of studies on vocabulary learning through reading, for example, they conclude that between three and six words are likely to be learned per hour of reading. Much in the same vein, Waring and Takaki (2003) identified low and mainly receptive vocabulary gains when Japanese EFL learners read a graded reader. They state that it appears to be difficult, or at least very time-consuming, to develop productive skills from incidental exposure (see also Pellicer-Sánchez & Schmitt, 2010). Similarly, Peters and Webb (2018) found that one hour of watching TV in English led to learning an average of four words in their study with Dutch-speaking EFL learners. A learner can thus not be expected to learn vast amounts of vocabulary incidentally, without many hours of exposure.

Another aspect of incidental vocabulary learning to be considered in a classroom context is that learners with higher proficiency have larger vocabulary gains from incidental exposure than learners with a lower proficiency level (e.g., Chen et al., 2018; Pujadas & Muñoz, 2019). Webb and Chang (2015a), as an example, noted that vocabulary size had a large influence on vocabulary learning from reading in a study among Taiwanese learners of English, meaning that learners who already know more words are also likely to learn more words incidentally. In their study, those learners had relative gains of about 59% whereas the corresponding figure for those with smaller vocabulary sizes was only about 21% (see also Peters & Webb, 2018). The findings that the gains from incidental learning are impacted by learners' prior knowledge raise important questions regarding how this mode of learning should be considered in the EFL classroom. As pointed out by Webb (2020), a reliance on incidental learning is likely to lead to Matthew effects, where the gap between high- and low-proficiency learners increases rather than decreases.

### *The importance of repetition for incidental vocabulary learning*

The effects of incidental learning can depend on many factors, but one primary factor is the number of times that the target word occurs in the input. Naturally, the more times a word is repeated, the more likely it is to be learned (cf. Webb, 2014). There is, however, no common agreement concerning the number of encounters necessary for incidental learning and studies range from quite modest figures of around ten repetitions to more than twenty. Pellicer-Sánchez and Schmitt (2010) studied the relationship between repetition and word learning when Spanish EFL learners read a novel. They found that 84% of the target words were known receptively on a meaning level after ten or more encounters and the corresponding figure for productive knowledge was 55%. They therefore conclude that learners need exposure to a word ten times for considerable vocabulary learning to occur from reading. Similarly, Webb (2007) conducted a study with Japanese EFL learners where he studied the learning of different aspects of words. He concludes that much vocabulary can be acquired after ten repetitions, although many more are required for full mastery of a word. In the same vein, the results of Pigada and Schmitt's (2006) case study with one participant show that ten or more encounters in a text can result in substantial learning of the spelling and moderate learning of meaning and grammar aspects of words (see also Webb et al., 2013).

Other studies indicate that significantly more repetition is needed for vocabulary learning. Waring and Takaki (2003), as an example, studied the uptake among Japanese EFL learners when reading a graded reader. 42% of the words occurring more than 15 times were translated correctly on an immediate post-test, but after three months the figure had decreased to only 6%. They assert that it thus is very unlikely that words occurring less than 15 times in a text will be learned. In the same vein, Brown et al. (2008) report that after 15–20 encounters with target vocabulary, 28% of the words were learned when Japanese EFL learners read graded readers. When listening to the same stories, only 3% of the target words were recalled after 15–20 encounters, which the researchers suggest means that incidental acquisition from listening requires more repetition of target words. Despite the fact that the number of repetitions differs, the studies reviewed here all indicate that repeated encounters contribute to incidental vocabulary development.

While many studies demonstrate that significant learning gains correlate with repetition, contrastive results have also been reported. Chen and Truscott

(2010) used Webb's (2007) research design in their recycling study with Taiwanese students and found that even though repetition is important for word learning from exposure, aspects such as kind of word knowledge and saliency in the text also impact learning gains and the effects of repetition. Similarly, Uchihara et al. (2019) performed a meta-analysis of effect sizes in 26 correlational studies on vocabulary gains from reading. Their results reveal that frequency of encounters is one of several factors that affect vocabulary learning from reading and that the impact of repetition may differ depending on other variables. The number of repetitions sufficient for learning may hence be contingent on other factors. Likewise, in Webb and Chang's (2015b) study on Taiwanese students' vocabulary gains from reading, frequency of exposure did not contribute significantly to word learning. In other words, even if recycling research may present different figures that should be sufficient for learning, these figures should be approached with some caution. It is true that recycling increases the chances of learning, but there is no one-to-one relationship between repetition and vocabulary development.

To conclude, word learning from incidental exposure is reliant on the repetition of target vocabulary. There is vocabulary development potential even in incidental activities where learning words is not the purpose of the tasks. However, the learning opportunities provided will vary depending on the extent to which words are repeated. Thus, a planned approach to recycling could ensure that incidental activities contribute to vocabulary development in the classroom.

### *Intentional vocabulary learning*

In contrast to incidental vocabulary learning stands intentional learning, where a learner acquires words as a result of a conscious effort (Hulstijn, 2013). This can, for example, be working with flashcards or vocabulary activities in a teaching material (e.g., Webb et al., 2020). In the same way that incidental learning cannot ensure absence of intentionality, researchers question using the word *intention* to describe these kinds of activities, especially as it has been found that even when tasks are designed to make students notice target words, they do not always do so (Jahan & Kormos, 2015). The present thesis adopts functional definitions of the vocabulary learning terms, which means that intentional vocabulary learning is defined as the learning resulting from an

activity without word learning purposes. As pointed out by Lindstromberg (2020), intentional learning in vocabulary literature is distinguished from incidental learning by its “high degree of focus on vocabulary learning” (p. 241). Consequently, other constructs such as *deliberate learning* and *form-focused learning* are also encompassed in the term intentional learning in this thesis as they all capture the aim of a learning activity.

Research suggests that the effectiveness of intentional tasks is considerably greater than that of incidental tasks. Laufer and Girsai (2008), as an example, studied the vocabulary learning resulting from content-focused and form-focused tasks in an experiment with Israeli EFL learners. While the learners working with content-focused tasks learned almost no words in the experiment, those working with form-focused tasks had acquired a substantial amount of vocabulary. In Peters’s (2012) study in Belgium, all participants had to read a text and then either answer reading comprehension questions or work with translation and multiple-choice tasks. In both immediate and delayed post-tests, the retention rates were higher for the learners who had worked with form-focused tasks. These results show that vocabulary-focused EFL instruction can lead to greater vocabulary gains than meaning-focused instruction. Much in the same vein, Laufer and Rozovski-Roitblat’s (2015) study with 185 EFL students found that learners who work with a word-focused exercise learn more vocabulary than learners who engage in a meaning-focused task. In the study, the learning gains were greater when learners encountered the words a few times in a vocabulary exercise than many times in a meaning-focused activity, indicating that the type of task may be more important for learning than repetition of the words (see also Laufer & Rozovski-Roitblat, 2011). Hence, there appears to be substantial learning gains to be made from intentional activities.

Although a general word focus seems to aid word learning, researchers also argue that not all intentional learning activities are equally conducive to learning. In Laufer’s (2005) review of studies on intentional learning, she reports that working with words in isolation leads to larger learning gains than explicit word tasks paired with a meaning-focused activity. Similarly, Webb et al.’s (2020) meta-analysis of 22 studies concerning vocabulary gains from different intentional vocabulary tasks highlights that the task design impacts the learning gains. While word lists and flashcards lead to considerable learning gains, their review indicates that writing and fill-in-the-blanks tasks do not

lead to significant vocabulary learning. They therefore conclude that it is important that researchers and teachers do not generalize and refer to the efficacy of intentional vocabulary learning activities in general, as it differs depending on the type of intentional task. Moreover, even if intentional learning gives a quick initial understanding of many words on a form-meaning level, Elgort and Nation (2010) suggest that this has to be complemented with incidental exposure for richer and more lasting knowledge. Given that different task designs have different contributions to learning, it does thus not suffice to merely focus on words in the classroom to support intentional vocabulary learning. Rather, as intentional activities should only constitute a limited proportion of classroom time (cf. Nation, 2007), it is important that word-focused time is optimized to support learning.

### *Involvement in intentional vocabulary learning*

An important condition impacting word learning from intentional activities is *involvement*, which reflects what learners do with words in tasks (cf. Laufer, 2016). In this thesis, the construct is approached using a modified version of Laufer and Hulstijn's (2001) *Involvement Load Hypothesis* (henceforth ILH). This means that what learners do with words is conceptualized as the cognitive engagement and processing required to complete tasks. The ILH is a framework based on the seminal psychological work by Craik and Lockhart (1972) and Craik and Tulving (1975), indicating that how a learner engages with a word can be more important than, for example, the time they spend on the word (see, however, Bao, 2015; Folse, 2006). These psychological theories concerning depth of processing have been difficult to operationalize in the classroom, which is why Laufer and Hulstijn (2001) introduced the ILH as an approach where the insights from these theories could be used to analyze language-learning activities (see also Hazrat & Read, 2022).

The ILH was developed as a framework to predict vocabulary learning under incidental conditions (Laufer & Hulstijn, 2001). It should be noted that Laufer and Hulstijn use incidental learning in the psycholinguistic definition, namely that learners are not told of an upcoming vocabulary test rather than the common definition in a classroom context, where incidental vocabulary learning is described as the learning that occurs when vocabulary is not the primary focus of the activity (cf. Webb, 2020). This means that almost all

vocabulary learning tasks in a classroom fall under the term incidental learning, as students seldom perform tasks in the classroom with the main intention of committing words to memory in preparation for an upcoming test (see Laufer, 2019). The ILH can consequently be used as a tool for evaluating most tasks in the language classroom.

The ILH framework comprises three factors that illuminate different facilitative conditions for vocabulary learning, two of which are the cognitive factors *Search* and *Evaluation*, reflecting the importance of processes such as attention and noticing for retention. The ILH also includes a motivational factor, namely *Need*. Together, they make up the construct *Involvement*, which Laufer and Hulstijn (2001) argue can predict vocabulary retention – the higher the involvement, the larger the chances of retention. However, while the original ILH framework was constructed to study the retention of previously unknown words, it is highly unlikely that all words practiced in word-focused tasks are novel to a learner in a classroom context. In line with the idea of cognitive processing, retrieving a previously encountered word is a cognitively elaborate process that should impact word learning. For this reason, following Nation and Webb (2011), the modified version of the ILH presented here also encompasses the factor *Retrieval*. Moreover, as the focus in the study part of this thesis was to map the cognitive processing required by students in tasks, *Need* is not included. The framework thus comprises the factors *Search*, *Retrieval* and *Evaluation*.

The factor *Search* highlights whether the learner has to look up the meaning of an unknown word or find the L2 word for an intended meaning. In the process of looking up a word, a learner will have to both notice and pay attention to the target word. *Search* is often exemplified as students reading a text and looking up unfamiliar words in dictionaries, but it is also present when students try to find the meaning or form by consulting a teacher or a textual context (Laufer & Hulstijn, 2001). In contrast to the other factors, *Search* can only be present or absent, it is not assessed in terms of degrees of presence. Empirical studies evaluating the predictive power of the ILH framework have, however, indicated that *Search* may not facilitate word learning. As an example, Yanagisawa and Webb (2021) performed a meta-analysis of 42 ILH studies where they found that *Search* did not predict learning (see also Tang & Treffers-Daller, 2016). Even though paying attention to target words

may be conducive to learning, it appears to not be significant enough to affect learning by itself.

Retrieval is a factor that reflects whether a learner has to retrieve a previously encountered word in an activity. It is divided into receptive and productive Retrieval, based on what the learner has to retrieve in the activity. Receptive Retrieval takes place when a learner has to retrieve the meaning of a target word, for instance when seeing the L2 word and having to translate it. Productive Retrieval, on the other hand, occurs when the learner has to retrieve the L2 form, for example, if the learner sees a translation and produces the L2 word. According to Nation and Webb (2011), productive retrieval supports retention more than receptive retrieval, as the process is more cognitively challenging. There is also substantial empirical evidence showing that retrieving information increases the chances of learning, instead of re-visiting the same information (e.g., Karpicke & Blunt, 2011; Smith et al., 2013). Roediger and Karpicke (2006), as an example, have found that multiple tests on the same content increase learning gains, as learners have to retrieve the information several times. In a vocabulary context, the effects of retrieval on word retention have also been established. In Barcroft's (2007) study, in which 44 speakers of English studied novel Spanish words, some learners had to retrieve the word meaning and others repeated the word. The retrieval prompt led to greater learning, both short-term and long-term (see also Barcroft, 2015). Similarly, Strong and Boers (2019) investigated how retrieval affects the learning of phrasal verbs among Japanese EFL learners. The learners had to practice phrasal verbs in exercises with or without retrieval. Their results indicate that retrieval opportunities increase the chances of phrasal verb learning. Retrieval is therefore a suitable addition to the ILH framework, illuminating an additional cognitive process that is conducive to learning.

The factor Evaluation reflects whether a learner has to assess a word and its use (Laufer & Hulstijn, 2001). Evaluation refers to the process of comparing target words with other words or meanings, or assessing whether a word is suitable for a specific context. It can be present to a moderate or strong degree, depending on how a learner has to evaluate the word to fulfill the task requirements. A moderate degree of Evaluation can, for example, be a fill-in-the-blanks exercise, where learners have to evaluate target words against each other and the given context and then find the most appropriate word. On the other hand, if learners are presented with target words and asked to produce text

using those words, the factor will be present to a strong degree. Under those circumstances, they have to evaluate whether the word fits in a context that they make up themselves, which means deciding on grammatical functions, collocations and so on. On a cognitive level, a learner has to consider and process more aspects of the word when it is used in an original context. The ILH thus posits that the chances of vocabulary learning in a task increase if learners are required to use the target words and that how they have to use the word, in either creative or pre-determined ways, also impacts learning.

There is vast empirical evidence for Evaluation as supportive of vocabulary learning (e.g., Tang & Treffers-Daller, 2016; Yanagisawa & Webb, 2021). As an example, in Eckerth and Tavakoli's (2012) study with Asian EFL learners, they found that performing a task with a higher degree of Evaluation leads to more lasting word learning (see also Keating, 2008). While elaborate processing of target words is conducive to learning, it is less clear whether the distinction between strong and moderate Evaluation suggested in the ILH has a bearing on learning gains. Kim (2008) conducted an experiment with EFL learners from different countries where an immediate post-test only showed a significant difference between task effects in regard to presence or absence of Evaluation, not between moderate and strong Evaluation. In contrast, the opposite is reported in Yang et al.'s study (2017) among Chinese EFL learners, namely clear differences between levels of presence on immediate post-tests, but only between absence or presence in delayed post-tests, (see also the difference in results between Hulstijn and Laufer's [2001] experiments with Hebrew-speaking and Dutch-speaking learners). Even if the qualification of presence into strong and moderate Evaluation should be treated with caution, the ILH factor Evaluation appears to facilitate learning,

In conclusion, *how* learners engage with target vocabulary can play a crucial role in their intentional vocabulary learning. As mentioned above, although word focus is advocated in the literature, the time spent on vocabulary tasks can support students' learning to different degrees, based on their design. This stresses, again, the importance of a principled approach in the classroom, where tasks are well-designed to facilitate learning, by taking, as an example, involvement into consideration.

### 3. The Swedish context

As this thesis is situated in a Swedish context, it is important to consider aspects that have an impact on the Swedish EFL classroom in different ways. This chapter first introduces overarching contextual factors that are relevant for but not exclusive to the Swedish context, namely communicative language teaching (henceforth CLT), and Extramural English (henceforth EE). The chapter then provides a description of factors related to EFL in Swedish schools, which are the curriculum, Swedish students' English proficiency, teaching materials and extramural exposure in Sweden.

#### Communicative language teaching

Different approaches to language learning and teaching have dominated education over time, which has impacted how the classroom is structured. For a very long time, the focus in language learning was on formal aspects of the language, such as its grammar or vocabulary (Schmitt & Schmitt, 2020). However, in the 1970s, a shift occurred where the focus turned to communicative competence (Hymes, 1972), which means that learning to use a language effectively was given prominence over learning distinct features of the language. Today, this is the most widely proposed and adopted view in EFL teaching, in Sweden and Europe (Schurz, 2022; Siegel, 2022). In Sweden, the syllabus in English for compulsory school is explicitly described as having a communicative approach (Skolverket, 2022a). CLT is thus a factor that most certainly has an influence in Swedish EFL classrooms.

While CLT is dominant in language teaching today, it is somewhat misleading to label this as one unified approach. Rather, CLT principles and approaches mean different things in different contexts and are implemented in different ways. As Hall (2011) points out, CLT should be seen as an umbrella term that shows a perspective on the goals and processes of learning a language

in the classroom. However, what unifies the communicative approach is, as mentioned above, the move from learning language structures to learning effective language use. In this shift, a central aspect is how language proficiency is understood. Siegel (2022) highlights that CLT construes knowledge of a language as something beyond the four skills, reading, writing, speaking and listening, and knowledge of the language system. Communicative teaching thus moves from promoting the learning of a set number of linguistic points to the ability to use the language successfully in different contexts. Further, CLT approaches center on meaning and communication and favor fluency over accuracy. In other words, in CLT approaches, the recommendation is that language should be viewed in relation to function and communication rather than structure (Hall, 2011).

For teaching methodology, a communicative approach means aiming to help students learn to use a language effectively in communication. Rather than teaching learners to form correct sentences, language education should try to ensure that learners can use the language appropriately in different situations (Hall, 2011). When planning a language course, this entails “beginning with the context and purpose of utterances and asking how these might be expressed, rather than taking a linguistic form and asking what may be communicated through it” (Wilkins, 1972, p. 148). A communicatively oriented teaching approach hence gives considerable prominence to the communicative context and does not promote taking the language as such as the starting point in the classroom. CLT-oriented classrooms should therefore be constructed in a way that allows learners to be active and try to express themselves. Concretely, this means that the classroom is centered around different communicative acts (Thornbury, 2016), where traditional language-focused activities are exchanged for role play, games and other communicative tasks, as participation in meaningful L2 communication is seen as central (Dörnyei, 2013).

Although CLT is a central teaching paradigm, it has also been criticized. For instance, it has been argued that fluency is over-emphasized, disregarding the importance of accuracy, especially for foreign language learners (Hall, 2011). The idea that language can be learned primarily from use has also received critique, given that transfer and fossilization of mistakes are difficult to counteract in a use-based classroom (Thornbury, 2016). Within research focusing on different aspects of the language system, the holistic view of

language in CLT has also been questioned, as this means disregarding aspects of language form. Schmitt and Schmitt (2020), as an example, argue that meaning-focused approaches like CLT need to take vocabulary into consideration because words are necessary for communication and vocabulary learning is not something that can be taken for granted. The lack of guidance for vocabulary instruction is also an issue, according to Schmitt and Schmitt (2020), which may be a result of the fact that CLT approaches consider words to be merely support for functional language use. They argue that this means that little attention is given to vocabulary as such, which can lead to vocabulary learning being left to chance, without any explicit focus or support from teachers. As they contend that communication will not suffice to ensure sufficient vocabulary acquisition, this can have dire consequences. Their position is that meaningful, principled planning of the vocabulary component is required for successful language learning and that CLT approaches do not ensure this. Based on this critique, it is particularly interesting to investigate how vocabulary learning is perceived in EFL contexts characterized by CLT approaches.

In a Swedish context, recent research shows that EFL teachers are guided by a communicative approach and that this impacts how they organize their teaching. In her thesis, Schurz (2022) surveyed and interviewed nine Swedish EFL secondary school teachers, focusing on their beliefs relating to EFL grammar instruction. She found that the teachers interviewed see communication as primary in EFL learning. The teachers stated that they prefer implicit and fluency-based instruction, although some of them also mentioned that explicit instruction is necessary. The results of the study reveal that the teachers do not plan their EFL grammar teaching. Instead, they said that they teach grammar when a construction is encountered in a communicative context, rather than planning their teaching beforehand. A similar picture is provided in Schurz and Coumel's (2020) questionnaire study with 205 Swedish EFL teachers, among others. They conclude that Swedish teachers promote meaning-based instruction where communication is in focus and teaching is adapted to students' individual needs. The results also indicate a fluency-based approach to grammar teaching, where instruction is incidental rather than systematic. It can be concluded that the ideas connected to CLT described above are also prominent in Swedish teachers' perceptions, showing that CLT is a central factor influencing teachers' thinking and decision-making.

## Extramural English

Today, English is not a language that learners only encounter in a formal instructional environment. Rather, many students are exposed to vast amounts of English outside of the school setting. For EFL teaching, this is an important contextual factor to consider, as it may affect students' knowledge as well as their expectations and experiences of learning English in school. To capture this reality and to highlight its importance in an EFL research context, Sundqvist (2009) coined the term *Extramural English*. Extramural means outside the walls and, as such, EE refers to English outside the walls (of school). This can be English encountered in activities such as gaming or reading books, visiting different online forums or using language learning apps. In comparison to many other terms that are used to describe the informal learning of English, the term is very open and focused on learners. By definition, an EE activity is learner-initiated and does not occur in school. Further, the term comprises both extramural input and output, presence or absence of learning intention, and incidental and intentional learning (Sundqvist & Sylvén, 2016). In an EFL context, EE is a suitable term to use, as it has high ecological validity in the sense that it captures the totality of students' experiences of out-of-school English, rather than compartmentalizing it into different parts.

The relevance of EE in research is partly due to the omnipresence of English globally, which means that English, far more than most other languages, is a part of people's everyday lives. To understand the prevalence of English, some central points should be made. For instance, over 56% of all websites are estimated to be in English. This is particularly noteworthy when considering that the second most frequently used language on the Internet, Russian, is used on only 5% of websites (W3Techs, 2023). English thus holds a unique position as the main language online. As people have a vast online presence today, it means that English is a language that undoubtedly will be encountered by many people. It is also a language of media and mass communication (Berns, 2009), with American movies and TV series exported and watched all over the world. Hollywood productions, which are English-language productions, hold a prominent role in movie markets all over the world (Crane, 2014; Lee, 2008). This means that in countries where movies are not dubbed, English will be met frequently through TV and cinema. It can

be concluded that it is difficult not to be exposed to English when engaging in typical spare time activities like browsing the Internet or watching TV and as a result, EE is something that most young people will encounter in, in one form or the other. This is also corroborated by studies where learners report that they spend many hours a week on English-mediated activities outside of school (e.g., Schurz, 2022).

EE has been given much attention in research to highlight the learning that occurs outside of formal instruction. Many studies have been conducted with the intent of measuring the effects of EE on different aspects of learning. Given the focus of this thesis, studies relating to the relationship between vocabulary development and EE will be reviewed. However, on a general level, a positive relationship between EE and, for instance, written proficiency (Olsson, 2011; Verspoor et al., 2011), oral proficiency (Sundqvist, 2009) and grammatical knowledge (Schurz, 2022) has been identified. As an example, in Lindgren and Muñoz's (2013) study on 865 foreign language learners (aged 10–11) in seven countries, exposure to a foreign language outside of school was the second-best predictor of reading and listening comprehension. EE thus has an impact on students' language learning more generally and the gains that can be expected from students with vast EE exposure are considerable.

Research indicates a strong relationship between EE and vocabulary knowledge. In her thesis, Sylvén (2004) investigated the vocabulary knowledge of Swedish upper secondary school students (aged 15–18), enrolled in either a content and learning integrated (CLIL) program or a non-CLIL program. Her intention was to establish whether being instructed in English had an effect on vocabulary learning. Her results show that regardless of instructional context, the students with the most EE exposure scored the highest on a vocabulary test, indicating that EE is a stronger predictor of vocabulary knowledge than language of instruction. Similarly, Peters et al. (2019) studied Flemish learners in secondary school and university. They compared the learners' vocabulary knowledge of French (more formal instruction) and English (more extramural exposure) and found that the learners had considerably larger vocabularies in English, which the researchers suggest strengthens the idea that EE impacts vocabulary learning.

Many studies report a connection between different kinds of EE activities and vocabulary knowledge. Sundqvist (2009), for example, studied the effects of EE on 74 Swedish 9<sup>th</sup> graders' vocabulary knowledge and her results show

a statistically significant correlation between EE and vocabulary size. More specifically, EE activities where students are active, such as reading books or playing games, had a greater effect on learning than activities where they are more passive, like watching TV and listening to music. Peters's (2018) study on Flemish EFL learners, aged 15–16 and 19, also identified a positive relationship between EE and vocabulary size. More specifically, using the Internet contributed most to learning, followed by non-subtitled TV programs, movies, magazines and books. Much in the same vein, Bollansée et al. (2021) investigated learners aged 10–12 in Belgium and their findings reveal that EE exposure, especially videogames and watching TV without subtitles, correlates with productive vocabulary (see also Puimège & Peters, 2019a). The vocabulary learning gains from EE gaming have been given particular focus in the field. Sylvén and Sundqvist (2012), as an example, conducted a study with Swedish students in year 5 and investigated differences in vocabulary test scores based on the amount of gaming that learners engaged in. They found a significant correlation between test scores and gaming. These results have also been corroborated by studies with Swedish teenagers (Sundqvist, 2019; Sundqvist & Wikström, 2015). When considering the results reviewed here, it can be concluded that EE has a substantial impact on language learning in general and, more specifically, that there appears to be a strong relationship between EE and vocabulary development.

## EFL in Swedish school

In Sweden, English is introduced during primary school, when students are between 7 and 9 years old, making it the first foreign language to be learned in school and it is also the only mandatory foreign language (Education Act, 2010). In secondary school (years 7–9), which is the school level in focus in this thesis, students are 13 to 15 years old and entitled to 200 hours of English studies. This is less than the hours allotted to both L1 Swedish (290 hours) and a second foreign language (272 hours) (Skolverket, 2023c). Before starting secondary school, students have been offered 280 hours of EFL instruction. English is given prominence in the Swedish school system, as a passing grade is required in English together with L1 Swedish, Mathematics and at least five other subjects to be admitted into upper secondary school (Skolverket, 2023a).

EFL teaching in school is influenced by many factors but relevant to this thesis are the curriculum, students' proficiency, teaching materials and extramural exposure. These factors are presented below.

### *Curriculum*

The curriculum for compulsory school is a steering document that all education in Sweden has to follow and that should function as a starting point for planning and conducting teaching (Skolverket, 2022c). Its role is to ensure high-quality and equal education for all students (Skolverket, 2022b). The language syllabi in Sweden follow the common European framework of references for languages (CEFR; Council of Europe, 2020), both in the approach to language learning and in the use of CEFR reference levels to describe and assess language proficiency (Skolverket, 2012). The CEFR promotes a communicative approach to language learning and teaching, where the foreign language is seen as a means of communication. The CEFR also adopts an action-based approach to language teaching, which is defined as conceptualizing the students as social agents and basing language curricula on real-life communicative needs rather than prescribed, general content (Council of Europe, 2020).

Relevant to the understanding of EFL teaching at different levels in Sweden are the reference levels in the CEFR that are used to assess and understand language proficiency. They are divided into six main levels, A1–2 for a basic user, B1–2 for an independent user and C1–2 for a proficient user. Skolverket (The National Agency for Education, henceforth NAE) connects the obligatory national tests taken in years 6 and 9 to different CEFR levels (Skolverket, 2012, 2022a). At the end of primary school (i.e., year 6), the NAE states that a passing grade should correspond to an A2 level of proficiency. At the end of year 9, a passing grade should be equivalent to a B1 level of proficiency (Skolverket, 2022a).

The curriculum comprises three parts, where the first two are general parts that provide the overarching aim for education in Sweden. The third part encompasses the subject syllabi, which give a framework for teaching the specific subjects. The syllabi also consist of three parts: aim, core content and grading criteria. While the aim defines the overarching purpose of a subject, the core content prescribes what is obligatory to cover during the school years

and the grading criteria provide a scale to use for the assessment of students' development throughout the school years (Skolverket, 2022b).

The syllabus in English starts with a description of the purpose of EFL education in Swedish schools. The NAE asserts that EFL teaching should seek to develop students' knowledge of the English language and about areas where English is used. Further, the classroom should provide students with opportunities to develop their multilingualism and their trust in their own ability to use the language in different situations (Skolverket, 2022b). The aim section further states that students should develop an "all-round communicative competence" (Skolverket, 2022b, p. 35, my translation). This appears to be the goal of the English subject stipulated in the curriculum. Students are expected to develop communicative competence, which the NAE defines as entailing "comprehension of spoken and written language, the ability to communicate with others in speech and writing and the ability to adapt language use to different situations, purposes and interlocutors" (Skolverket, 2022b, p. 35, my translation). Although general, this is what all students are expected to reach by the end of compulsory school (i.e., year 9).

The aim section of the syllabus for English has a clear focus on communicative competence. This is especially prominent in the objectives of EFL teaching where providing students with opportunities to develop their comprehension of written and spoken English and their ability to communicate in writing and speech is mentioned. The aim section is thus holistic and language features such as vocabulary are not explicitly mentioned. The syllabus is accompanied by a commentary material with more information connected to the statements in the syllabus. In this document, vocabulary is mentioned more than in the syllabus text. The NAE comments on the aim and states that communicative competence entails the ability to adapt language use in terms of formality and that this ability can be discerned in, for instance, the students' word choices and use of terms of address. In the same section, communicative competence is described as progressing in mastery of the form of the language, in terms of aspects like vocabulary, phraseology, grammar and spelling (Skolverket, 2022a). The NAE explains that "with knowledge of the form of the language, students can learn to express themselves and communicate in increasingly advanced and challenging contexts" (Skolverket, 2022a, p. 8, my translation). It can thus be concluded that while the aim section of the syllabus is holistic and does not give prominence to linguistic form, the mentions of

vocabulary in the commentary material show that the NAE does not completely disregard the importance of form aspects for proficiency in the language.

The core content in the syllabus for English comprises three parts: the content of communication, reception and production. Vocabulary (or linguistic form) is not mentioned in the content of the communication section, which prescribes a focus on current and familiar topics and everyday situations and opinions. This, again, reflects a communicative approach where language is to be used in contexts of real-life value. The receptive core content states that the classroom should deal with comprehension of spoken and written English in different genres, strategies for comprehension and assessing sources. The receptive section of the core content includes two aspects that relate to vocabulary, namely: “linguistic features, among others pronunciation, grammatical structures, words from different registers and fixed expressions and spelling, in the language that the students encounter” and “how cohesive markers and other expressions are used to create structure and linguistically coherent units” (Skolverket, 2022b, p. 38, my translation). An important distinction here is that the linguistic features to be focused on should be found in the language that the students encounter. The commentary material makes it clear that there is no obligatory language-focused content for students to learn, as the syllabus sees “communication as primary” (Skolverket, 2022a, p. 17, my translation).

The productive section of the core content specifies that the EFL classroom should include i) conversations and writing tasks where students describe their opinions, ii) strategies for communication, iii) revision of writing and speech to make the intended message clearer as well as one form-focused point: “linguistic features, among other things, pronunciation, words and fixed expressions, grammatical structures and spelling in the students’ own production and interaction” (Skolverket, 2022b, p. 38, my translation). The NAE stresses that there is no shared language-focused content for students and that the focus should be on what the learner can do with the language and that the linguistic features in focus should be treated to the extent and depth necessary for the language to be a tool for students to express the content of communication (Skolverket, 2022a). The relationship between receptive and productive abilities and vocabulary is hence not commented on in the syllabus or the commentary material.

The grading criteria for English focus primarily on receptive skills, productive skills, interaction and communicative strategies. In the criteria, there are no references to vocabulary and, in general, no specific kind of content is mentioned at all, which the NAE motivates by stating that the teacher decides what to teach and thus what to assess (Skolverket, 2022a). Just like the core content, this statement can be understood as suggesting that there is no shared content or vocabulary stipulated as necessary for all students. Instead, the idea proposed is that their individual interests and communicative contexts decide what parts of the language they need to learn. The commentary material mentions, however, fluency in production and interaction as well as adapting language use, where the use of words and phrases is described as part of the assessment (Skolverket, 2022a).

To conclude, the Swedish syllabus for English in secondary school has a focus on holistic, communicative abilities. Students are expected to become sufficiently proficient to interact and communicate well in English in varied authentic contexts. Even though vocabulary is an integral aspect of achieving this goal, the syllabus offers little guidance as regards lexical development. Rather, it appears to indicate that vocabulary development occurs by chance and that it is not an aspect that needs to be planned. This raises the question of how vocabulary is treated in Swedish EFL classrooms.

### *Students' English proficiency*

The learners in focus in this thesis are Swedish secondary school students and to assess the results presented here, it is important to consider their expected proficiency in English and their vocabulary knowledge. There are, however, few studies investigating this in a Swedish context. The latest large-scale study of Swedish students' EFL proficiency is the first European survey of language competences (European Commission, 2012a). In the survey, the L2 proficiency of 14/15-year-olds was measured in 14 EU countries, of which Sweden was one. The survey investigated written proficiency and reading and listening comprehension, in relation to the CEFR levels. About 1775 Swedish students in year 9 took part in the survey (European Commission, 2012b). While 80% of the Swedish adolescents scored on a B2 level on the listening test and 65% on the reading test, less than 30% of learners were on this level on the written test (European Commission, 2012a). From this study, it can be

concluded that Swedish students appear to have significantly higher receptive than productive proficiency. As mentioned above, a passing grade in year 6 should correspond to being on an A2 level of proficiency (Skolverket, 2012). The national tests that Swedish students take in year 6 can therefore function as an indication of their proficiency level, as the proportion of students passing the tests in English should reflect how many students are on the expected A2 level at the end of primary school. 94.4% of students in year 6 passed the national test in English in the school year 2021/2022 (Skolverket, 2023b), which shows that most students reach the stipulated goals, at least as they are assessed on the national tests. Although the national tests and the language competence survey do not measure vocabulary specifically, the results nevertheless suggest that Swedish adolescents can be expected to have a substantial vocabulary, as vocabulary knowledge is necessary to perform well on the tests.

There are a few studies where Swedish adolescents' vocabulary sizes in English have been measured. Nordlund et al. (2023) present figures on the vocabulary size of 31 upper secondary school students in Sweden, measured using the VST. They found that the students' receptive vocabulary sizes range between 2,700 and 11,200 word families. While some students had low vocabulary scores, a majority of the students had a vocabulary size of 9,000 word families or more. The authors conclude that Swedish students have vocabulary sizes likely to aid them in general communication in English. Much in the same vein, Snoder and Laufer (2022) tested the vocabulary size of 49 Swedish students in grade 9 and 39 students at the end of upper secondary school. They used the same vocabulary test as Nordlund and colleagues, and they report a mean receptive vocabulary size among students in 9<sup>th</sup> grade of 5,600 word families. These results further demonstrate that Swedish students are likely to have quite a considerable vocabulary size at the end of secondary school. However, two small-scale studies do not suffice to draw safe conclusions about the vocabulary sizes of all Swedish students. More studies are thus warranted. These studies nevertheless lend some support to the general idea driving the textbook analyses in this thesis, namely that Swedish secondary school students are likely to master many of the 3,000 most frequent word families.

In Sweden, English proficiency is necessary for success in higher studies. In Malmström and Pecorari's (2022) report about the role of English in Swedish higher education, they show that English is used as the language of instruction in many educational programs and that assigned reading in English is very

common, even in courses that are taught in Swedish. When leaving upper secondary school, Swedish students need and are expected to have a considerable level of English proficiency. Even though this is an expectation, Swedish studies have identified that students face difficulties in this respect. In Eriksson's (2023) study of 206 Swedish first-year university students' attitudes and experiences of academic reading in English, the students attested to struggling with reading in English and over one-third of the participants said that they were not prepared for the academic reading required at university. When asked what obstructed their reading, over 50% of the participants stated that vocabulary posed an issue. The participants mentioned that having to look up many words made their reading pace slower and that their overall reading experience was negatively impacted. The lack of necessary academic vocabulary has also been reported by Warnby (2023a). In his study, 426 Swedish upper secondary school students' academic vocabulary was tested using the Academic Vocabulary Test (Pecorari et al., 2019). Compared to the suggested threshold for academic mastery, Warnby found that 52% of the participants did not reach even the lower level of mastery, which is a worrying finding. These studies thus indicate that, whereas Swedish students appear to have considerable English proficiency in secondary school, at least academic English vocabulary is an aspect where students need to progress more to be prepared for further studies.

### *Teaching materials*

This thesis comprises analyses of teaching materials, based on the assumption that they play an important role in organizing the classroom and EFL teaching. Teaching materials may be the only tools in the classroom that are created with both time and resources which make them more likely to be designed systematically (cf. Schmitt, 2019). They are therefore important to study when focusing on structured support in the classroom. As teaching materials constitute a main study object in this thesis, contextual factors relating to EFL materials are presented here, such as the use of them, their design and approaches to EFL materials development.

While the focus on teaching materials in this study is not primarily motivated by the extent of teaching materials use in the EFL classroom, it is still relevant to consider what is known about materials use in Sweden. There

is however little research concerning the use of EFL materials in Swedish schools. In the NAE's large-scale study with 472 EFL teachers, over 80% of the surveyed teachers stated that they use published materials every month and 56% that they use them every lesson in year 9 (Skolverket, 2006). Similarly, the Swedish Schools Inspectorate (Skolinspektionen, 2011) observed 293 EFL lessons in years 6–9 and found that published textbooks were used in almost 50% of the lessons. These results, albeit not recent, indicate that EFL materials may be used quite extensively in the EFL classroom. However, Widholm's (2020) study regarding teaching materials in religious education in Sweden reports that the material use in class is fragmented. This means that teachers often employ different resources besides the traditional teaching material. Although these results are not specifically related to English, they pose the question of whether a similar situation may exist for the EFL classroom as well, as there is much material available online.

In Sweden, teaching materials are not evaluated or standardized, leaving the content and design of materials to the publishers. There is thus no national standard that materials have to follow to be used in classrooms. Hence, little is known about the quality of Swedish materials today. Yet, few lexical analyses of EFL teaching materials have been conducted, especially for adolescent learners where the only study, to the best of this author's knowledge, is Ljung's (1990) study on the vocabulary in upper secondary school EFL textbooks. The existing studies all relate to young EFL learners in Sweden but they nevertheless warrant some attention here, as they reveal patterns in how vocabulary is approached in materials development in Sweden. Norberg and Nordlund's (2018) study of seven textbooks for Swedish primary school shows that a large proportion of the vocabulary input comes from low-frequency bands, which is surprising given the target audience. Much in the same vein, Nordlund (2016) investigated the input in two series of EFL textbooks for young learners and found that more than 30% of the adjectives in the books fall outside the 2,000 most frequent words of English. In the books, over 40% of the nouns and over 20% of the verbs were also of lower frequency. The results of these studies indicate that Swedish textbooks are not lexically adapted with the target audience and their level of learning in mind. When analyzing the learning conditions provided in primary school textbooks, studies have also identified a lack of consideration of the vocabulary component. For instance, when Nordlund (2015a) studied recycling in beginner textbooks, only 3–4% of

adjectives occur 12 or more times, while the corresponding figure for nouns is 4% and 12.5% for verbs (see also Nordlund, 2015b, 2016). In terms of explicit vocabulary support, Nordlund and Norberg's (2020) study concerns the exercises in seven Swedish primary school workbooks from a vocabulary perspective. They identified that closed exercises dominate the materials, that is, exercises where students are asked to, for example, fill in the blanks. Moreover, the textbooks include very few exercises that are open or communicative, where students have more freedom in completing the task. Taken together, the studies mentioned here show that the design of Swedish primary school textbooks is not guided by a research-based and systematic approach to vocabulary.

Although not specific to the Swedish context, it is also relevant to mention the debate concerning what is important in a teaching material from a language learning perspective. What constitutes a good language learning material is not generally agreed on in textbook research. While the research reviewed above and the textbook research conducted as part of this thesis are based on the idea that teaching materials should be a structured provider of language learning support, other approaches have also been advocated. As an example, Tomlinson (2013a) proposes a text-driven approach to teaching materials design, where affective engagement is seen as the primary facilitator of language learning. In this approach, teaching materials should provide texts as resources for emotional response and engagement which can also be used as linguistic resources. Here, the language content is thus secondary. A common approach in the literature on materials development is also to promote authenticity in teaching materials (e.g., Rilling & Dantas-Whitney, 2009; Tomlinson, 2013b). Tomlinson (2017) asserts that authentic texts are texts where the target is communication rather than learning and that an authentic task is a "real life task which is meaning focussed, has a communicative purpose and aims to achieve intended effects" (p. 3). It has been argued that authentic materials are beneficial to language learning, as they can contribute with rich and meaningful language input. Mishan (2005), for instance, highlights that authentic materials can facilitate affective engagement through their rich input and that engaged learners are more likely to learn. According to Berardo (2006), authentic materials should be used because they prepare learners for actual language use. Moreover, Henry (2014) argues that inauthentic texts and teaching materials may have a negative impact on students' motivation to learn

English in a school context. Guariento and Morley (2001), on the other hand, suggest that authentic materials can be difficult to use for some learners and that simplification of texts could be necessary, as this may facilitate meaningful responses from the learners. Researchers are hence not in agreement as concerns how a textbook should be designed and whether authentic texts are preferable, as there are several aspects to take into consideration such as learning opportunities and motivation. Nevertheless, it is important to bear in mind that teaching materials can be evaluated and analyzed differently depending on the approach to textbook design.

### *Extramural exposure*

Extramural English is an important factor in the classroom, as English has a prominent position in Sweden (Sundqvist, 2020) and the spare time activities of many students are characterized by English language use. A Swedish report from 2021 reveals that over 40% of boys aged 13–16 attested to playing games for three hours or more per day. Girls stated that they spend the same amount of time on social media (Statens mediaråd, 2021). In the same report, 91% of adolescents aged 13 to 16 said that they watch TV or movies at least once a week. In Asp's (2016) mapping of the programs aired on Swedish television during a regular week in 2015, he found that while 30% of the programs were produced in Sweden, 43% were produced in the United States and 16.5% in the UK. English-speaking programs from the US and the UK thus stood for a majority of programs on Swedish television in 2015. As Sweden is a subtitling country, this means that a considerable amount of English is encountered by watching TV in Sweden.

A number of studies have investigated the amount of extramural exposure that Swedish learners receive and they all indicate vast encounters with the English language, starting at an early age. Already in primary school, Swedish students are involved in many EE activities outside of school. The ten-year-olds in Sundqvist and Sylvén's (2014) study spent on average 7.2 hours a week on EE activities and the corresponding figure was 9.4 hours among eleven-year-olds (Sylvén & Sundqvist, 2012). Swedish adolescents appear to generally be exposed to even more EE. Studies investigating Swedish learners in year 9, when the students are between 15 and 16 years old, report weekly averages ranging from 18.4 hours (Sundqvist, 2009) to 20.3 hours (Olsson, 2011). The

most recent figure comes from Schurz (2022), who mapped the extramural engagement of 77 Swedish students in year 7. The students in her study were involved in EE activities 36 hours per week on average. Most of the studies mentioned here are, however, not recent and may not be fully representative of learners today. Yet, it is reasonable to believe that the extramural exposure has not decreased but rather increased in the last decade (cf. Schurz, 2022). Swedish teachers are also of the understanding that their students encounter English substantially in their spare time. In Schurz and Sundqvist's (2022) study of 108 Swedish EFL teachers' perceptions of their students' involvement in EE activities, the participating teachers stated that their students spend considerable time on these kinds of activities. Watching audiovisual media and listening to music were put forward as the most common activities, followed by gaming, reading, writing and speaking. The findings reported here together support the conclusion that, on average, students spend significantly more time encountering English outside of school than in school.

Ideas about the impact of EE on students' learning have also been found to influence teachers' views of language learning and instruction in the classroom. In Schurz et al.'s (2022) study, seven Swedish EFL teachers perceive EE to affect their classrooms, as it probably plays a part in causing the vast difference between students' proficiency levels. The teachers in the study also said that EE has a positive effect on grammar learning and expressed a preference for implicit grammar teaching, which the authors suggest may be connected to the prominence of EE activities among their students. In another study with 78 Swedish EFL teachers, Schurz and Sundqvist (2022) report that Swedish teachers connect EE to language learning. The teachers part of the study attributed the most extensive language learning impact of EE on listening, vocabulary, informal language use and speaking, while formal language use and grammar were seen as less influenced by EE. According to the teachers, their role is to compensate for the vast exposure of informal language that students encounter extramurally. These studies indicate that teachers are aware of the learning effects of EE and consider this in their teaching.

In relation to students' extramural exposure, Swedish scholars have argued that this can impact how EFL is perceived by learners as well. Although there is very little risk that students perceive English as unnecessary to learn, the role of school and the motivation students feel in school are less certain today. As pointed out by Henry (2019), English is more than a lingua franca and a

language for communication for many Swedish adolescents today, as it is present to such a high extent in many areas of their lives. He states that English is a unique school subject in the sense that learning occurs both in and outside of the classroom and that the discrepancies in how English is used in these different contexts may decrease students' motivation to engage in classroom activities. This means that the EFL classroom may face an authenticity issue, which is likely to affect student motivation (Henry, 2013). As an example, the English encountered in the classroom may not be perceived as real English and may feel less meaningful than the English-mediated activities that students are used to in their spare time, such as gaming and being on social media (e.g., Sundqvist & Olin-Scheller, 2013). In the previously mentioned study by Schurz (2022), Swedish EFL students' beliefs connected to EE were also investigated. Her study shows that the learners perceive it as having a positive influence on language learning. What is more, they even said that EE is more important than instruction, both for learning rule-based aspects of language and fluency aspects. When Henry (2014) analyzed Swedish EFL learners' beliefs, he came to the conclusion that learners believe that they learn as much or more English outside of school, which he proposes is a primary explanation for low levels of motivation to learn English in school. This suggestion has received empirical support in Henry and Cliffordson's (2017) study of 116 Swedish EFL learners' motivation, where they found that the belief that extra-mural exposure leads to substantial learning has a negative impact on the motivation to participate in the EFL classroom. EE is thus a positive factor in students' learning, but a potential challenge for their in-school learning motivation.

## 4. Methodology

The present thesis contributes with knowledge about vocabulary learning support in the Swedish EFL classroom. To fulfill the aim and answer the research questions, four studies have been conducted analyzing interview and teaching material data. In this chapter, an overview of the studies is provided. The methods used for data collection and analysis in the studies are also presented as well as the empirical material. In the presentations, reflections on the choices of materials and methods are also included.

### Overview of the studies

As previously mentioned, this thesis comprises two kinds of studies, interview studies and content analyses of teaching materials. These approaches were chosen as they illuminate vocabulary learning support on a conceptual and concrete level. In the interview studies, the conceptualizations of main agents structuring the classroom, teachers and materials developers (together referred to as *educators* in this thesis), can be elicited and thus what ideas guide the organization of the classroom. In the analyses of teaching materials, the support provided in a primary tool structuring the classroom is illuminated. As can be seen in Table 2 below, the different study objects warranted different empirical data and analytical methods, rendering the thesis as a whole a mixed-methods thesis, where the different methods are seen as complementary and supporting a multi-faceted understanding of vocabulary learning support in the Swedish EFL classroom (cf. Riazi & Candlin, 2014).

**Table 2.***Overview of the aim, material and methods in the studies*

	<b>AIM</b>	<b>EMPIRICAL MATERIAL</b>	<b>ANALYTIC METHODS</b>
<b>I</b>	To illuminate Swedish EFL teachers' conceptualizations of vocabulary knowledge and learning.	Semi-structured interviews with EFL teachers ( <i>n</i> = 14)  11 hours and 21 minutes	Thematic analysis
<b>II</b>	To illuminate what guides and influences Swedish materials developers' decisions on vocabulary content for EFL textbooks.	Semi-structured interviews with EFL materials developers ( <i>n</i> = 8)  9 hours and 6 minutes	Content analysis
<b>III</b>	To determine to what extent the lexical input in Swedish EFL textbooks for secondary school supports incidental vocabulary learning for intermediate learners.	Reading texts ( <i>n</i> = 550) in five series of EFL teaching materials  341,648 running words	Comparative word frequency analysis Corpus analysis
<b>IV</b>	To map the task design in word-focused exercises in Swedish EFL materials and the vocabulary learning opportunities they provide.	Vocabulary exercises ( <i>n</i> = 537) in three series of EFL materials  4,950 target lemmas	Comparative word frequency analysis ILH-informed analysis

Investigating teachers' beliefs when focusing on vocabulary learning support in the classroom is motivated by the field of teacher cognition, where it is generally recognized that teachers' belief systems impact teaching and the classroom (e.g., Arnett & Turnbull, 2008; Borg, 2011). More specifically, teacher cognition researchers contend that teachers make instructional choices based on their personal networks of knowledge and beliefs (Borg, 2003) and that these networks affect how and what input is made available to learners in the classroom, which is likely to have consequences for their language learning (Andrews, 2007). Based on these assumptions concerning the impact of beliefs, it has been argued that teaching and the classroom cannot be understood without taking teachers and their beliefs into account (e.g., Borg, 2009, Li, 2020). In this thesis, this line of reasoning is also extended to encompass materials developers, as it is likewise very likely that developers' conceptions influence their practice and the materials they design, which also organize the classroom. Indirectly, their beliefs thus affect the classroom as well.

Analyzing the vocabulary component of teaching materials illuminates vocabulary support because teaching materials are the dominant structuring tools in classrooms. Just like beliefs, they are likely to influence teaching and what happens in the classroom (e.g., Appel, 2011; Gray, 2016). Schmitt (2019) puts forward the significance of teaching materials for EFL vocabulary development specifically. He stresses that the systematicity required to facilitate vocabulary learning in the classroom is difficult for teachers to achieve in their everyday teaching practice. For instance, it may be very challenging to ensure systematic and sufficient recycling of new words in the classroom. Here, materials developers and textbooks are important, as teaching materials are developed with the time and resources that could ascertain that their design supports learning. Accordingly, how textbooks are structured in terms of vocabulary input should give valuable insights concerning the support provided in the EFL classroom. By studying textbooks, focusing on both texts and tasks, the present thesis illuminates the incidental and intentional vocabulary learning opportunities offered in them. To discern the learning support, the analyses concern both *what* words are included in texts and tasks and *how* they facilitate word learning.

## Data collection

### *Semi-structured interviews*

To investigate beliefs among teachers and materials developers, semi-structured interviews were used. In interviews, it is possible to chart interviewees' conceptions of a phenomenon, via in-depth descriptions in the participants' own words (Brinkmann & Kvale, 2015). It was therefore judged a suitable method for the purposes of Studies I and II, where the perspectives of educators were investigated. The depth of description reached in interviews aids an understanding of how different ideas relate to each other, as the interviewees have a chance to express themselves freely and draw connections between different ideas and practices. While interviews are often advocated in qualitative research as they facilitate an understanding of how participants understand a phenomenon (Brinkmann & Kvale, 2018), interviews have a limitation in the number of participants possible. To have a larger sample, some researchers opt for questionnaires instead, as they take less time and allow for more participants to make their voices heard. However, as pointed out by,

for example Kagan (1990) and Woods (1996), decontextualized questions are less likely to reflect participants' actual ideas, as they may be answered based on norms or what they think the researcher wants them to say. This risk is still present in interviews, but when participants have a chance to expand on their ideas and beliefs, the answers can be analyzed both on a latent and manifest level and studies can thus elicit more representative findings concerning their beliefs. For this reason, qualitative interviews were opted for, as it was judged important that in-depth insights into the views of the participants were gained.

For the purpose of the interview studies (Studies I and II), interview protocols were formed (Appendices A & B). They functioned as a guide, although follow-up questions were asked based on the responses when deemed necessary (cf. Brinkmann & Kvale, 2018). The questions in the interview protocols were formed based on literature reviews concerning the role of vocabulary in foreign language learning and teaching. In this way, areas relevant for understanding the interviewees' beliefs of vocabulary and how these correspond to research within the field were identified. The interviews made use of open-ended questions, following Campbell et al. (2004), who state that they "facilitate the giving of opinion and allow the respondents opportunities to develop their responses in ways which the interviewer might not have foreseen" (p. 99) and are therefore likely to increase the validity of the findings. For the teacher interviews, the protocol was also piloted prior to the data collection to ensure its function.

The sample for Study I is 14 secondary school EFL teachers. Two selection criteria were used, namely, that the participants should i) be EFL teachers working in Swedish secondary school and ii) use EFL teaching materials in their classrooms. The second selection criterion was included because the interviews comprised questions about the teachers' use of teaching materials. These results are, however, beyond the scope of this thesis. To find participants, head teachers and administrators at schools in the north of Sweden were contacted and provided with a questionnaire to share with EFL teachers. In the questionnaire, the teachers answered a question about whether they use teaching materials in their EFL teaching and, if so, what materials they used. The teachers were asked to provide contact information if they were willing to participate in an interview study. The email was also sent out to teachers directly when contact information was readily available. An overview of the participants focusing on what subjects they teach and how long they had been

teachers at the time of the interview is presented in Table 3 below. The numbering of the participants here is in random order and does not correspond to the numbers assigned to them in Study I.

**Table 3.**

*Participants in Study I*

<b>PARTICIPANT</b>	<b>SUBJECTS</b>	<b>TEACHING EXPERIENCE</b>
Participant 1	Swedish, English and Social study subjects	36 years
Participant 2	English and Finnish	28 years
Participant 3	Swedish, English and Swedish as an L2	22 years
Participant 4	English and French	20 years
Participant 5	English, French and Crafts	22 years
Participant 6	Swedish, English, German and Swedish as an L2	20 years
Participant 7	Swedish, English, French and Swedish as an L2	23 years
Participant 8	Swedish and French	20 years
Participant 9	Swedish and Physical education and health	14 years
Participant 10	English, German and Swedish as an L2	17 years
Participant 11	Swedish and English	16 years
Participant 12	Swedish and English	18 years
Participant 13	Swedish, English and Spanish	18 years
Participant 14	Swedish, English and Swedish as an L2	19 years

The informal questionnaire concerning EFL teaching materials guided the sampling for the materials developer study (Study II). An invitation to take part in the study was sent out to both authors and editors of the materials mentioned by teachers in the questionnaire. An overview of the participants is presented in Table 4 below. In the study, the overarching term *materials developer* is used to refer to both textbook authors and editors, as it was found that they together are in charge of the vocabulary component of the textbooks. However, as can be seen in the table below, some publishers do not make a clear distinction between being an editor or an author and use the title *läromedelsutvecklare* ('materials developers').

**Table 4.***Participants in Study II*

<b>PARTICIPANT</b>	<b>FORMAL ROLE</b>
Participant 1	Author
Participant 2	Author
Participant 3	Materials developer
Participant 4	Author
Participant 5	Author
Participant 6	Materials developer
Participant 7	Editor
Participant 8	Editor

The participants in Study II can be seen as representative of EFL materials developers in Sweden more generally as the eight interviewees comprise a substantial proportion of the population. In Study I, however, the sample is less representative. In comparison to the number of EFL teachers in Sweden, 14 teachers from the same region are a limited sample. It is, however, unlikely that geographical location is a determining factor in vocabulary-related beliefs. These differences should yet be taken into consideration when reading the results. While a small sample size may pose an issue for Study I, it is important to mention that this is the case for all qualitative research interested in a large population, such as teachers. The advantages of a qualitative in-depth study with a smaller sample thus have to be considered in relation to the disadvantages. In Study I, the results are judged to be indicative of the larger context and can also function as a complement to more overarching quantitative studies. For instance, the qualitative insights reached in interviews with teachers can help explain results from quantitative studies about learners' vocabulary size (e.g., Warnby, 2023a), as this is how knowledge about what guides teachers when they teach can be reached. Even though the sample size requires some caution, Study I provides valuable perspectives on the classroom that would be difficult to elicit in a study with a substantially larger sample size.

The 14 teacher interviews were conducted between May and October 2019 both in person and digitally. Ten of the interviews were carried out face-to-face and four via Zoom and Skype. The materials developers were interviewed in April and May 2020 via Zoom, Teams and Skype. As an attempt not to influence their accounts, the first language of the participants

decided whether the interviews were held in Swedish or English. As argued by Mann (2016), an interview conducted in a participant's second language is likely to affect the quality of the research and limit the interviewee's participation. All the interviews were audio-recorded and transcribed in verbatim.

The interviews were planned in accordance with The Swedish Research Council's ethical considerations and guidelines (Vetenskapsrådet, 2017). The participants were sent a consent form with information about the study, how the data would be handled and what the data would be used for prior to the interview (Appendices C & D). The consent form also mentioned that their answers were confidential and that they were anonymous in the presentation of the results. They were also informed that they at any time could cancel their participation without any further questions. Thus, the participants all gave informed consent to participate in the study. To ensure confidentiality and protection of the participants' identities, the transcriptions of the interviews were masked and de-personalized.

### *Corpus compilation*

Study III focuses on incidental vocabulary learning via texts in teaching materials. To investigate this, a textbook corpus was compiled. The informal questionnaire concerning textbook use among EFL teachers pointed towards five commonly used teaching materials, which were also from four different publishers. As the focus of this thesis is secondary school, the materials for years 7–9 are included in the corpus. The corpus comprises the texts from three printed series, namely *Awesome* (Childs-Cutler et al., 2016b; Childs-Cutler & Gentili Cronholm, 2017b, 2018b), *Good Stuff Gold* (Coombs et al., 2012a, 2013a, 2014a) and *Wings* (Frato, Cederwall et al., 2016, 2017; Frato, Mellerby et al., 2015), as well as the texts from the digital teaching materials *Digilär* (Gode, 2014) and *Gleerups Engelska* (Taylor et al., n.d.). *Digilär* comes in two forms, called Standard and Advanced. The Standard version is included in the corpus. Table 5 presents an overview of the materials and the number of texts in each book. Because the purpose was to investigate how well the materials support vocabulary development through reading, the corpus consists of the reading texts in the materials, as the students read them for content. Hence, instructional texts, exercises or word lists were excluded from the corpus.

**Table 5.***Number of texts in the teaching materials*

<b>TEACHING MATERIAL</b>	<b>YEAR 7</b>	<b>YEAR 8</b>	<b>YEAR 9</b>
<i>Awesome</i>	31	29	29
<i>Digilär</i>	28	22	24
<i>Gleerups</i>	38	26	28
<i>Good Stuff Gold</i>	58	54	49
<i>Wings</i>	47	48	39

The first step of the corpus compilation was scanning the physical textbooks and downloading the texts from the digital materials. The scanned files were converted from .pdf to .docx using OCR software and examined manually to ensure correspondence to the original. All files were then converted into .txt-files and uploaded to Sketch Engine (Kilgariff et al., 2004) to compile the corpus. Sketch Engine is a corpus and text analysis tool that compiles, tags and lemmatizes input, which means that no further manual preparation of the corpus was performed.

The textbook corpus comprises a total of 341,648 running words. For the sake of the study, however, the corpus was never analyzed as a whole. Instead, the five subcorpora, one for each series of materials, constituted the level of analysis. This means that each subcorpus consists of the texts from three individual books in a series. Table 6 presents each subcorpus in terms of tokens, types and lemmas.

**Table 6.***Size of the subcorpora*

	<b>TOKENS</b>	<b>TYPES</b>	<b>LEMMAS</b>
<i>Awesome</i>	77,165	9,101	6,557
<i>Digilär</i>	39,230	6,443	4,764
<i>Gleerups</i>	74,660	7,943	5,793
<i>Good Stuff Gold</i>	76,033	7,700	5,544
<i>Wings</i>	74,560	9,545	6,978

Analyzing textbooks to reach insights about the vocabulary support provided in the classroom warrants some reflection. Widholm (2020) found that many different materials are used in Swedish classrooms, not only published teaching materials. This naturally means that the impact of published textbooks may be limited, as teachers also structure their teaching based on, for instance, materials they make themselves and internet-based materials. This could possibly be an issue for the approach adopted here. However, as previously mentioned, the decision to analyze teaching materials is first and foremost based on the assumption that they may be the primary or only input that is consciously designed for language learning with the necessary time and resources (Schmitt, 2019), which thus makes them important when focusing on structured support in class. Although this thesis draws on the idea that teaching materials to some extent structure the classroom, their frequency of use is not central to the argument. Regardless of how much they are used, an understanding of the vocabulary component of materials still illuminates the possible structured support provided in the classroom.

### *Vocabulary exercises*

To complement the analysis of the texts, Study IV is focused on intentional vocabulary learning in teaching materials by investigating word-focused exercises. The vocabulary exercises in three of the teaching materials from Study III were used as data. This was mainly to obtain a data set that was of a size that would enable identification of quantitative patterns and yet be feasible to analyze qualitatively. The materials studied are *Awesome* (Childs-Cutler et al., 2016a; Childs-Cutler & Gentili Cronholm, 2017a, 2018a), *Good Stuff Gold* (Coombs et al., 2012b, 2013b, 2014b) and *Digilär* (Gode, 2014). They are the three most frequently referenced materials in the teacher questionnaire and they also come from different publishers. Moreover, they represent both printed and digital materials and were therefore considered to be a fairly representative sample.

In order to collect the word-focused exercises from the chosen series, a definition of *word-focused exercise* had to be formed. Initially, the material was examined on a general level to reach an understanding of how the exercises were typically designed. It was then decided that all exercises labeled vocabulary exercises in the workbooks as well as exercises where the instruction

draws explicit attention to words would be considered data for the study. For example, in *Awesome 7* (Childs-Cutler et al., 2016a), an exercise where students are given a number of adjectives referring to appearance is not explicitly labeled “Vocabulary” but is presented under the general category “Activities”. However, as students are given target words and asked to “use the words in the circles to describe the people in the pictures” (Childs-Cutler et al., 2016a, p. 18) and create sentences with the words, it was included in the material. Although not labeled a vocabulary activity, the instructions and design clearly indicate that vocabulary practice is intended. Moreover, grammar exercises were excluded as their primary goal is to practice grammar. In Table 7, the number of exercises included in the material is presented.

**Table 7.**

*Number of exercises analyzed in Study IV*

	<b>AWESOME</b>	<b>DIGILÄR</b>	<b>GS* GOLD</b>
Year 7	56	35	91
Year 8	44	36	90
Year 9	46	26	113

\*=*Good Stuff*

The exercises were analyzed in relation to the vocabulary learning conditions provided. Study IV also investigated the target vocabulary in the exercises. To compile a list of the target words in each teaching material, the exercise keys were used. All the words that were provided in the key to an exercise were gathered in the target word lists. In Table 8, the number of target lemmas per year in the vocabulary exercises is shown.

**Table 8.**

*Number of lemmas analyzed in Study IV*

	<b>AWESOME</b>	<b>DIGILÄR</b>	<b>GS GOLD</b>
Year 7	518	374	756
Year 8	474	387	725
Year 9	656	246	814

Proper nouns included in the key were disregarded as they do not constitute target vocabulary in the same way as common nouns. Before analysis, the word lists were lemmatized using Sketch Engine.

## Data analysis

The data collections described above generated two sets of interview data as well as reading text data and exercise data. These have been analyzed in different ways, depending on the research questions. In the two interview studies, different analytic methods were used, as they sought to identify patterns on different levels in the data. Both textbook analyses comprise an element of word frequency analysis, used to assess the lexical input. In addition, they also encompass analyses of learning conditions, focusing on different aspects respectively as learning support in incidental and intentional activities may differ. The analytic methods used in the four studies part of this thesis are presented below.

### *Thematic analysis*

Study I concerns EFL teachers' conceptualizations of vocabulary knowledge and learning. The analytic method used was a reflexive thematic analysis (RTA), which sets out to find patterns in the data set. The RTA model, which builds on Braun and Clarke's (2006) seminal paper, centers on an understanding of the analytic process as an interpretation of the data where the researcher's subjectivity and reflexive engagement with theory, data and interpretation are the strengths of the approach (Braun & Clarke, 2019, 2021b). In RTA, the researcher recursively codes the data material and then develops themes, which are defined as "patterns of shared meaning, cohering around a central concept" (Braun & Clarke, 2021b, p. 331). In the analysis of the teachers' utterances, each theme generated hence reflects a central idea in the teachers' conceptualizations of vocabulary (cf. Braun et al., 2022). The coding consciously considered the latent level in the data, which means that the coding sought to also find underlying ideas in the teachers' accounts.

The analytic approach was an inductive RTA, which means that the data was given prominence in the theme construction process. However, as pointed out by Braun and Clarke (2021a), an inductive RTA is grounded in the data, rather than being an actual inductive process, as thematic analyses are never conducted without theory. Whether overt or covert, the researcher's pre-existing knowledge will influence the theme generation. In the study, the interpretation of the data was informed by current research in vocabulary development and can therefore contribute to an overarching picture

concerning vocabulary in EFL teaching (cf. Braun et al., 2022). The data analysis followed the six recursive phases<sup>5</sup> of RTA (Braun & Clarke, 2021a, b) where the material was continuously revisited and interpreted. A benefit of being the interviewing, transcribing and analyzing researcher is that familiarization with the data started already in the data collection phase and continued throughout the work. The coding and theme development process entailed reading and re-reading the material and reflecting on codes in relation to latent meanings found in the interviews and previous research. In this way, the final themes reflect an interpretation of the data, which took the current vocabulary research paradigm as its starting point.

### *Content analysis*

Study II focuses on EFL materials developers and what guides their development process. In contrast to Study I described above, the study object in this study lies closer to the participants' utterances. A qualitative content analysis (Mayring, 2014a) was conducted to identify principles that materials developers attested to following when constructing materials. Although both content analyses (CA) and thematic analyses seek to find patterns in qualitative materials, such as interviews, a CA is less interpretative and more rule-based. This was deemed an appropriate method to use in Study II as the intention was not to find overarching ideas concerning vocabulary. Rather, the goal was to find overt principles in the materials developers' utterances that were also quantitatively dominant in the material. In CA, the goal is to draw replicable and valid conclusions from a material (Krippendorff, 2013), which means that the categories resulting from the analysis are seen as reflecting actual patterns in the data. The systematicity in the analysis is ensured by a quantitative aspect in terms of counting instances of codes, by a coding manual that guides the analysis, and also by using inter-rater reliability. The principles described in the study should thus be seen as overt patterns in the material developers' utterances, corroborated by frequency and inter-rater agreement.

In Study II, an inductive category formation approach was used (Mayring, 2014b) as the material was extensive. A CA where all the material is analyzed

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<sup>5</sup> Familiarization, coding, initial theme generation, theme review and development, refining, defining and naming themes, and writing up (Braun & Clarke, 2021a)

line by line and summarized was hence judged unsuitable. In an inductive category formation, the research questions guide the analysis and only material relevant to the questions is analyzed. Based on the research questions, the aim and underlying theory, a coding manual was formed, which established what parts of the material should be analyzed. The transcriptions were then analyzed line by line and every time an utterance was encountered that fit the description, a category was assigned to it, or formed, if it did not fit any existing categories. The category formation was revised throughout the process and whenever a new category was formed, the entirety of the material was re-categorized to ensure that everything was categorized using the same system. Then, inter-rater checks were performed and as the agreement was high (.95), the categories formed were used to find principles common to the materials developers.

### *Corpus analysis*

The focus of Study III is the texts in EFL teaching materials and their lexical nature. In the study, corpus-based methods were used to examine the material. While textbook analyses traditionally have been conducted using a page-by-page approach, corpus-based textbook analyses have increased substantially over time, as they offer the possibility to systematize findings and identify overarching patterns (Nelson, 2022). As mentioned, a corpus was compiled of reading texts in the materials using Sketch Engine (Kilgariff et al., 2004). Just as corpora have had a great impact on informing vocabulary research concerning the nature of the target language and what vocabulary learning challenges exist (cf. Schmitt, 2010), corpus-based methods can be used to highlight the learning opportunities in materials. In the study, a corpus analysis was used to map the recycling of words in the teaching materials.

The corpus analysis measured recycling in raw numbers and on a lemma level. Each subcorpus was analyzed on its own and to establish the amount of recycling, queries were run that provided lists of all lemmas occurring ten or more times, in three or more texts. As previously mentioned, there are suggested figures concerning how many encounters are necessary for supporting incidental vocabulary learning. In Study III, the cut-off point for sufficient recycling was ten encounters, in line with Webb's (2007) findings. This is also an in-between value, rather than a low or a high outlier. The

recycling analysis was also part-of-speech sensitive, which strengthens its validity. The queries identifying lemmas occurring ten or more times were then used to construct a word list for a comparative word frequency analysis in LexTutor (see below). Lemma was the counting unit opted for in the recycling analysis, as encountering an inflected form of a word is likely to lead to recycling of the base form, while the same cannot be said for derivational forms (Reynolds, 2015; Reynolds & Wible, 2014). It should also be noted that the recycling analysis focused on words occurring one to four times or ten or more times, which means that the lemmas recycled five to nine times were not analyzed in the study. This could potentially have scanted the results as regards, for instance, the lexical nature of the recycled lemmas, as high-frequency lemmas naturally are more likely to occur frequently in any text.

### *Comparative word frequency analysis*

One purpose of the two teaching material analyses was to characterize the lexical nature of the input, as regards the texts as a whole, the words focused on in exercises and the words recycled. Studies III and IV therefore compared textbook data to general English. This approach was motivated by the frequency principle, that is, the idea that the more frequent a word is in English, the more useful it will be to a learner (Vilkaitė-Lozdienė & Schmitt, 2019). Given that the target learners in the studies are not beginners but intermediate learners, the primary focus was to investigate the learning support of mid-frequency vocabulary. It should, however, be noted that many high-frequency words are polysemous, which could constitute a justification for focusing on these words even when learners are more proficient. This was not considered in the analysis of the lexical input and could thus be an object for further studies. The vocabulary profiler (VP-Compleat) provided on the LexTutor website (Cobb, n.d.) was used to establish the frequency profile of the textbook input in comparison to general English (using BNC/COCA 1–25K; Nation, 2017). This enabled an understanding of whether the words that students can learn from the teaching materials are useful to them, provided that word frequency is seen as an indicator of general usefulness of vocabulary.

In Studies III and IV, the vocabulary profiler LexTutor was used to profile different aspects of the teaching materials. In Study III, the profiler was used to analyze the text input as a whole, all the lemmas in the texts and the lemmas

recycled in the materials. First, each subcorpus was run through it to establish the frequency distribution of the entire input with the intention of showing at what frequency band 95% text coverage was reached, and how large a vocabulary students are likely to need to understand the texts with assistance and be able to pick up the remaining words incidentally. Second, the frequency distribution of all lemmas was also calculated to characterize the input and illuminate the spread of words that students reading the texts encounter (as each word is only counted once). Third, word lists with all lemmas recycled ten or more times were profiled using LexTutor. Following the different profiling sequences, the results were divided into high-, mid- and low-frequency words following Schmitt and Schmitt's (2014) guidelines. In this way, the analysis sought to facilitate an assessment of the results in relation to learners' expected word knowledge and usefulness to the learner group. Similarly, in Study IV, lists with all lemmas focused on in exercises were analyzed in the same way to highlight the usefulness of words receiving explicit focus in the materials.

All analyses except for the profiling of the entire subcorpora used lemmas as the counting unit. This choice was primarily based on Gablasova and Brezina's (2021) contention that lemmas are more precise as a counting unit than word families, as they rely on fewer assumptions concerning learner knowledge (see also, Kremmel, 2016). Webb (2021) suggests that lemmas may be useful in research and word families for pedagogical purposes (e.g., presenting learners with target vocabulary in word families). Following Nation (2006), proper nouns were treated as a category of their own in the text coverage calculation, as they are not lexical items in the same way as nouns or verbs. As LexTutor treats nationality adjectives (e.g., *Swedish*, *British*, *Indian*) as proper nouns and either redistributes them to the first frequency band or treats them as off-list words, a manual redistribution was performed where the frequency of the nationality adjectives in the BNC was identified and the statistics were then manually corrected.

It should be noted that the lemma lists compiled in Studies III and IV were analyzed in comparison to word family-based lists in LexTutor (BNC/COCA 1–25K). The choice of using lemmas has been motivated above. However, a main purpose in the studies was to evaluate the target words in relation to their pedagogical value, that is whether they are useful for the intended learner group, using a frequency approach. It was therefore necessary to establish how

the words in the materials stand in relation to high-, mid- and low-frequency words. The pedagogical guidelines about word frequency (e.g., Schmitt & Schmitt, 2014) are word family-based and the lemma lists were consequently profiled in comparison to these lists. For these purposes, comparing over counting units was not seen as a threat to the validity of the analysis. Rather, with this approach, no assumption about students' derivational ability is made and, at the same time, the results are possible to understand in relation to existing pedagogical guidelines.

The choice of analyzing vocabulary learning support using linguistic variables warrants some discussion. The conclusions from these analyses are based on how well textbooks correspond to quantitative descriptions of British and American English (i.e., corpus-based word lists). It is, however, not necessarily the case that foreign language learners should follow exactly the same patterns in their learning. Language learners have specific needs (cf. Dang et al., 2022b) and language learning is not a linear process. The vocabulary size of learners will also differ in a class, meaning that the same target vocabulary cannot be useful to all students. While the results generated in word list-driven studies do illuminate the correspondence to general language, it is important to note that there is no one-to-one relationship between frequency in general English and language learning success. Importantly, the complexity of language cannot be fully captured in numerical values. Yet, via corpus-based insights, it is possible to support the learning of a language by tracing the systematicities of the language. Using the existing knowledge of how English is structured is likely to aid learners and direct their learning to useful aspects of the language. It is, however, not a description of exactly what words each student needs. The results should thus be understood as a proximation of the overarching support provided in the materials.

### *ILH-informed exercise analysis*

In Study IV, which focused on vocabulary exercises, the primary part was an analysis of the learning conditions provided in the exercises in the teaching materials. To evaluate the learning conditions, a modified version of the Involvement Load Hypothesis (ILH; Laufer & Hulstijn, 2001) was used to form a categorization scheme. The ILH was chosen because it provides a framework for analyzing exercises in terms of the cognitive engagement

required in tasks. It should be noted here that Laufer and Hulstijn (2001) propose that ILH be a framework for evaluating learning activities of novel words. In the study, however, it is used with exercises that focus on both novel and previously encountered words, which is why the factor Retrieval was added (see Chapter 3 for a description of the framework). Laufer (2019) explains that the main reason for ILH being focused on novel words is that it is more or less impossible to empirically investigate task efficacy of previously encountered words, as it is difficult to isolate what learning is the result of a particular task. The predictive ability of ILH for previously encountered vocabulary is thus low. However, in the approach to ILH used in this study, its predictive strength was not the primary concern, rather, its factors were used as operationalizations of more general psychological theories. In that sense, it is reasonable to assume that the same conditions should be contributing factors for retention of previously encountered words, especially considering that the psychological theories draw on experiments where the words were previously known to the participant (see Craik & Tulving, 1975).

In the study, the ILH formed the basis for a categorization scheme where three learning conditions were focused on, namely Search, Retrieval and Evaluation, which could be either absent or present to differing degrees. Search and Retrieval were combined into one category, as they are mutually exclusive in the sense that they reflect two different ways of accessing words, either by looking up novel words or retrieving previously encountered ones. In order not to skew the results, they were therefore considered together. Each exercise was categorized in regard to Search/Retrieval and Evaluation (and their potential degree of presence) and the results were presented both qualitatively and quantitatively, in the sense that besides establishing the frequency of each learning condition, main characteristics of exercises within categories were described. The ILH-informed analysis used quantitative measures, reporting both the raw frequency and proportion of all exercises within a category. This was, however, not evaluated statistically, as the intention was to understand the distribution within each material, not to compare the materials.

In the framework used in Study IV, Retrieval is combined with Search into one analytical category capturing how the target word in a task is accessed. More specifically, tasks were hence assessed in relation to four categories, namely no Search/Retrieval, present Search, receptive Retrieval and productive Retrieval. Other researchers calling for the inclusion of Retrieval

into the ILH framework have proposed other solutions, but these solutions risk losing the width of the framework, as they entail conflating categories. Similar to the approach in this thesis, Nation and Webb (2011), as an example, suggest that Retrieval should be combined with Search, making the factor indicative of whether the word meaning (receptive) or the word form (productive) has to be retrieved or looked up. Although this is an approach similar to the one used here, the main issue with combining them is that the framework does not reflect whether the target word in the task is novel or previously encountered (Laufer, 2019). Hazrat (2020) advocates another adaptation, namely that Retrieval should be added to the Evaluation category while Search remains separate to show the difference between novel and previously encountered vocabulary. This suggestion, however, would mean that the task analysis could only reflect either Retrieval or Evaluation, as it is a part of the same factor. For instance, a task where a learner is asked to translate a word and then use it in a fill-in the-blanks exercise entails both productive Retrieval and moderate Evaluation, which would not be clear if Hazrat's (2020) framework was used. It is thus apparent that including Retrieval in a way that reflects the tasks analyzed may be complicated. By including Retrieval but not replacing Search in this study, the purpose was to widen the scope of what can be analyzed with the modified ILH framework.

As mentioned in Chapter 2, there is general support for the ILH among researchers and the factors lending support to word learning. The quantitative claim of the framework, where all the factors are given equal value is, however, less motivated (e.g., Kim, 2008; Yang et al., 2017). For this reason, the ILH was not used as a quantitative framework where the factors are given numerical values and tasks a total involvement score. Instead, the factors and their degrees were used to indicate presence or absence of vocabulary support, which means that the analysis did not seek to predict learning, only highlight support.

## 5. Results

The overarching aim of this thesis was to illuminate whether the Swedish EFL classroom provides support for vocabulary development in secondary school. To fulfill this aim and to illuminate the vocabulary learning opportunities given to students in school, four empirical studies were conducted, focusing on two areas, namely conceptualizations of vocabulary learning and the lexical component of teaching materials. In this chapter, the results from the four studies are summarized and synthesized. In the synthesis, the main overarching findings are presented in relation to the *what* and *how* of vocabulary learning.

### Study I

Bergström, D., Norberg, C., & Nordlund, M. (2022). “Words are picked up along the way” – Swedish EFL teachers’ conceptualizations of vocabulary knowledge and learning. *Language Awareness*, 31(4), 393–409.

The first study set out to illuminate Swedish EFL teachers’ conceptualizations of vocabulary knowledge and learning. 14 semi-structured interviews with EFL teachers in secondary school make up the empirical material for the study. To analyze the material, a thematic analysis was opted for and three themes were generated that capture main conceptualizations of vocabulary among the teachers interviewed: i) *vocabulary breadth and communication*, ii) *vocabulary depth and meaning* and iii) *incidental vocabulary learning*.

The first theme reflects the teachers’ focus on communicative competence in the classroom. It was found that the teachers construe the goal of learning vocabulary as gaining communicative competence, which they said is attained by acquiring a large vocabulary. The teachers thus expressed an understanding of the centrality of vocabulary for general language proficiency. However, the study also indicates that a communicative approach can lead to vocabulary being considered only an integrated part of learning and not a learning

objective in its own right. The teachers' conceptualization of target vocabulary for their students is related to this, as they said that there are no particular words that students should know. They asserted that the only important thing is that the words students learn are communicatively useful for them. The teachers did not provide any explanations for how they know what words are useful to their students, except by using their intuition. Moreover, when reporting on their practice, the focus on communication was also discernible, as the teachers claimed that they do not use decontextualized teaching methods, such as word lists, and that they assess students' vocabulary skills by holistically evaluating the general quality of a text.

The second theme highlights that the teachers conceptualize vocabulary depth in primarily semantic terms. Connected to the focus on communication, they maintained that meaning is a prerequisite for use. They mentioned that they see knowledge of synonyms and the ability to explain the meaning of words as indicators of word knowledge. This understanding appeared to affect their reported practices, as they attested to focusing on including semantic activities in the classroom, such as describing words. Besides the communicative approach mentioned above, the teachers also motivated their disregard for learning from word lists with polysemy. According to them, it can confuse students to be presented with a fixed meaning of a word, since meaning can be both fuzzy and varied. They did not, however, mention ways of dealing with this issue in their teaching.

While the first two themes primarily concern conceptualizations of word knowledge, the third theme relates to vocabulary learning. It was found that the teachers conceptualize vocabulary learning as being primarily an incidental process. The teachers stated that they believe that the best vocabulary development occurs in activities where the student focuses on content rather than on words. They also expressed that vast exposure to the language is necessary to develop a sufficient vocabulary and that vocabulary learning happens all the time without any conscious effort from the student. This understanding of vocabulary learning seems to draw on the teachers' ideas about the impact of extramural English and meaning-focused exposure on their students' language learning. The teachers explained that the best way of learning vocabulary is reading for content and thus picking up words along the way, but that all kinds of meaning-focused exposure, for example, gaming or watching TV, are beneficial for vocabulary development. The conceptualization of word

learning as incidental also appears to influence the teachers' understanding of their responsibility in the classroom, as they said that they do not need to instruct their learners as much and rather just expose them to English.

To summarize, this study indicates that a communicative approach characterizes the teachers' conceptualizations of vocabulary knowledge and learning. The communicative focus seems to entail a holistic approach where vocabulary is seen as an integrated aspect of proficiency and not an aspect in need of attention. The main motivation for vocabulary learning discernible in their answers is thus that vocabulary supports communication. The teachers also expressed that they perceive vocabulary to be an important aspect of learning English, both in terms of size and depth, and that vocabulary size and depth support learners in using the language. They further stated that vocabulary learning primarily is an incidental process and attested to believing that vocabulary development occurs primarily on its own. It can be concluded that although the teachers stressed the importance of vocabulary for communication, they mainly described vocabulary learning in the classroom as a process occurring implicitly without their support.

## Study II

Bergström, D., Norberg, C., & Nordlund, M. (2023). "The text comes first" - Principles guiding EFL materials developers' vocabulary content decisions. *Scandinavian Journal of Educational Research*, 67(1), 154–168.

The second study aimed to illuminate what guides and influences Swedish materials developers' decisions on vocabulary content for EFL textbooks. The empirical material consists of eight interviews with materials developers who have written some of the most frequently used EFL teaching materials for Swedish secondary school. The interviews were analyzed using an inductive content analytic method to find patterns extending over several textbook series and publishers. The analysis found guiding principles that relate to the textbook as a whole, vocabulary learning, vocabulary content and word lists.

With regard to the textbook as a whole, two main principles were identified, namely i) *the text in focus* and ii) *the supportive function of the textbook*, which were found in all the interviews. The materials developers stated that a central purpose when designing textbooks is to create engaging texts that

students will enjoy reading. They attested to prioritizing the textual content over linguistic aspects such as vocabulary or grammar. The developers described that their role is to engage learners via meaningful input. In relation to this, they declared that they see vocabulary learning as occurring incidentally when students engage with texts. A primary objective when designing materials, according to the interviewees, is to support teachers and students, which they stated that they achieve by providing a material that is suitable to the learner group, easy to use and follows the curriculum. To ensure that the materials they produce are relevant to the target audience, a common practice reported by the developers is to pilot material with teachers and students. The feedback from the end users was put forward as a deciding factor as regards whether a text has suitable linguistic and conceptual content.

The study identified four principles regarding vocabulary development that impact the interviewees' materials design. These principles are i) *not list learning*, ii) *in context*, iii) *repetition* and iv) *use*, which highlight how the materials developers explained their understanding of vocabulary development. They expressed a critical approach to word lists as a tool for vocabulary learning and the inclusion of word lists in teaching materials based on their idea that language cannot be learned without a context. Instead, they stressed that vocabulary is best learned when words occur in a meaningful and engaging context, which relates to the previously mentioned text focus. They claimed that they therefore do not focus on the word list during the development process, as they see it as a less important part of the material. The developers also mentioned that vocabulary development is supported by repetition and use and that these learning conditions should be ensured and encouraged in their textbooks. They stated that as a result, their focus is on including usage-focused exercises and the same words in several word lists and exercises.

In the interviews, four principles concerning the vocabulary content in the materials were found: i) *text precedes vocabulary content*, ii) *proportion of new words*, iii) *lexical fields* and iv) *relevance and usefulness*. The most prominent principle was, again, related to the general text focus. The materials developers explained that the text should decide what vocabulary content should be included in the materials. They maintained that considering what vocabulary to include is subordinate to writing a good text but a few developers said that they sometimes edit a finished text on lexical grounds, replacing too difficult

words or adding relevant words. A lexical concern mentioned by the developers was that the texts should not include too many new words as this makes the text difficult to read. They also asserted that they try to include words from the same lexical fields in their materials and that they want the vocabulary content to be relevant and useful to students. However, when asked, they did not report any methods for deciding what words to include.

The analysis of the interviews revealed four word list principles that capture ideas that appear to guide the development process: i) *supportive function*, ii) *challenging words*, iii) *gut feeling* and iv) *not traditional translation word list*. As mentioned previously, the developers expressed a critical approach to word lists. They nonetheless said that they include word lists in their materials and see the main value of a word list to be that it supports reading comprehension and saves time for teachers. The developers mentioned that the word list should include challenging words and that the words included are selected based on their gut feeling. They also explained that they try to avoid translation word lists in their materials, as they do not think that vocabulary is best learned that way. Instead of including translations in the word lists, they stated that they try to construct lists with example sentences, definitions or synonyms.

In summary, the results from this study demonstrate that a main conceptualization of vocabulary learning among the materials developers is that vocabulary learning is contextual and incidental. The materials developers also expressed a considerable text focus, which, according to them, influences the development process. The text focus was found to lead to little consideration of the vocabulary component of the materials, as they maintained that the text is sufficient for vocabulary learning. However, they also attested to taking challenging and relevant words into account when developing their materials, but the results are unclear as regards how they put this into practice. In conclusion, the results show that Swedish EFL materials are constructed with a focus on the text, which has a determining effect on the treatment of vocabulary.

### Study III

Bergström, D., Norberg, C., & Nordlund, M. (2022). Do textbooks support incidental vocabulary learning? – A corpus-based study of Swedish intermediate EFL materials. *Education Inquiry*. Advance online publication.

The third study set out to determine to what extent the lexical input in Swedish EFL textbooks for secondary school supports incidental vocabulary learning for intermediate learners. The material analyzed is the reading texts in five series of textbooks, each series containing three parts, one per school year. As the textbooks studied are intended for secondary school students, an underlying assumption was that the high-frequency words of English are likely to be known and should not constitute target vocabulary in the materials, because students need to increase their vocabulary sizes. Instead, mid-frequency vocabulary was construed as a suitable learning objective. The study utilized corpus-based methods and word frequency analysis to investigate the reading texts. More specifically, the analysis focused on the lexical characteristics of the input and the recycling of words in the texts and in that way, the lexical suitability of the reading texts for the intended student group was evaluated.

The analysis showed that the teaching materials include a suitable proportion of known vocabulary to support reading. Around 95% of the reading texts are comprised of high-frequency words and proper nouns. This means that Swedish secondary school students are likely to be able to read and comprehend the texts in the materials, with assistance. As unknown vocabulary can only be picked up from reading if the text is comprehensible, this means that a prerequisite for incidental vocabulary learning is provided in the materials. The study also investigated how many different words students are exposed to in the reading texts. It was found that students encounter between 700 and 1,400 different mid-frequency lemmas when reading the texts. Although this is a considerable number of mid-frequency words, the study posits that the number is still quite low, given how many words students need to learn every year to progress in their language learning.

The analysis of recycling established that the materials recycle between 10% and 15% of all the lemmas ten or more times, which in the study was set as the cut-off point for sufficient recycling to support incidental learning. The recycling differs between word classes. A larger proportion of verbs and

adverbs are recycled than the proportion of nouns and adjectives. The study also found that almost all the recycled words are of high frequency in English. In comparison, less than ten mid-frequency lemmas are recycled ten or more times in any of the series. The analysis thus shows that the materials do not provide sufficient opportunities to learn mid-frequency words from reading only. It can therefore be concluded that the materials do not offer suitable support via recycling for the target students, given the frequency profile of the words recycled.

The study indicates that Swedish EFL materials for secondary school do not adequately support incidental vocabulary learning. While the analysis identified that the materials are possible to read in terms of the proportion of known vocabulary, the input is not structured in a way that is likely to lead to sufficient word learning. This is particularly prominent as regards the words recycled in the materials. By reading the texts in the materials, students are not supported in acquiring almost any mid-frequency words, which is likely to have a substantial effect on their learning.

## Study IV

Bergström, D. (2023). 'Solve the crossword': An analysis of task design in EFL materials from a vocabulary perspective. *The Language Learning Journal*. Advance online publication.

The fourth study aimed to map the task design in word-focused exercises in Swedish EFL materials and the intentional vocabulary learning opportunities they provide. The empirical material is the vocabulary exercises in three series of EFL teaching materials for secondary school. The analysis focused on the target vocabulary in the exercises and the learning conditions provided via the task design. Just as in Study III, mid-frequency vocabulary was considered suitable target vocabulary for the intended group of students. The target vocabulary was analyzed by profiling word frequency in relation to general English and the learning conditions were studied using an adapted version of the Involvement Load Hypothesis, where the tasks were categorized with different degrees of Search/Retrieval and Evaluation, showing whether exercises require students to retrieve target vocabulary and/or use them to complete the task.

The study found that all the textbooks primarily include exercises where students practice high-frequency words. The proportion of high-frequency words exceeds 50% in all the materials and in some materials, more than 70% of the words focused on are of high frequency. This means that a majority of the words given attention in the materials are words that the students are likely to already know. As most words in the vocabulary tasks are high-frequency, this consequently means few mid-frequency words are included in them. More specifically, the number of lemmas from these bands ranges between 259 and 397 in the series studied. This means that students are provided with opportunities to intentionally learn, at most, 400 suitable target words over three years of working with vocabulary exercises, which is a quite low number considering how many words students need to learn. It can thus be concluded that the materials do not focus on the most useful words for the student group.

A main pattern identified in the analysis is that the teaching materials include many vocabulary exercises where students are asked to retrieve target words, either in form or meaning. The proportion of exercises requiring students to retrieve target words ranges between 55% and 80% in the materials analyzed. There was however no clear pattern as regards what kind of retrieval is required in the exercises. While some of the materials studied encompass many opportunities for receptive retrieval (i.e., where the meaning of the word is retrieved), other materials provide more opportunities for productive retrieval (i.e., where the word form is retrieved). Nevertheless, on a general level, students appear to be provided with many opportunities to practice and learn words via retrieval in the vocabulary exercises. However, the percentage of exercises asking students to use words is considerably lower, never exceeding 35% of the exercises in a series. As regards these exercises, the results show that using words in a set context such as fill-in-the-blanks, is more common in the materials than exercises where students are asked to use words independently. The general analysis of the distribution of learning conditions reveals that the teaching materials offer more opportunities for vocabulary learning from retrieval than use.

The study also involved an analysis of the co-occurrence of the two categories in the word-focused exercises. In contrast to the previously mentioned results, the patterns are more varied over the different series and categories, although some general patterns were discerned. The analysis showed that exercises in the materials that do not require students to use target

words commonly do not require any retrieval of words either. This means that many word-focused exercises in the materials provide neither of the two learning conditions studied, which questions their suitability as tools for explicit word learning. The most common exercise type is matching exercises, which require neither use nor retrieval because both the form and the meaning are provided and the student is asked to connect the two. Another common exercise type in the material is crosswords, where the students are not required to use words but yet have to retrieve the form. Thus, two equally simple exercises in terms of construction, matching and crossword, can have different learning effects as a result of small design variations. Another prominent pattern identified in the exercises is that strong Evaluation, that is, independent use, is very seldom required together with productive Retrieval, which would provide the strongest learning conditions, according to the modified version of the ILH used in this study. It can be concluded that whereas there is variation in what kind of processing is required in exercises, the teaching materials analyzed for the purpose of this study seldom provide strong learning conditions in their vocabulary exercises.

To summarize, the study reveals that the word-focused exercises in Swedish EFL materials are unlikely to sufficiently support intentional vocabulary learning. The exercises offer few opportunities to practice words suitable for the intended group of students, which impacts the effects of the tasks. As for the learning conditions provided, the results indicate that there is some support given to students, especially via retrieval. At the same time, the materials offer few opportunities to practice vocabulary in use and a substantial proportion of the exercises do not support learning via either of the learning conditions in focus.

## Synthesis of the results

Even though the studies summarized above are quite different in character, they can together provide a more in-depth understanding of the vocabulary learning support in Swedish EFL classrooms. When synthesized, the four studies all give insights concerning two main aspects of the classroom, namely the vocabulary learning objective and the process of vocabulary learning. Studies I and II have a conceptual perspective and provide insights into how the objective and the process are construed among educators. Studies III and IV adopt a more concrete viewpoint and focus on what words can be learned in teaching materials and what kind of vocabulary learning is promoted in materials. Together, the studies illuminate vocabulary learning support in the classroom on both a conceptual and concrete level.

### *The vocabulary learning objective*

On a general level, the EFL teachers in Study I described the vocabulary learning objective as entailing both vocabulary size and depth. They motivated the importance of vocabulary by connecting word knowledge to communicative competence. According to the teachers, learners need to learn many words and develop a deep knowledge of the words to be successful in their learning. Vocabulary depth was described in primarily semantic terms, referring to knowledge of synonyms and polysemy. Study I did not, however, identify any operationalizations of the objectives, in terms of, for example, how many words students need to learn. The teachers attested to the importance of vocabulary knowledge, but it is unclear what this means more specifically and how they assess this in their classrooms.

In Studies I and II, the teachers and the materials developers did not refer to any clear vocabulary goals, in terms of what words should be learned. The materials developers in Study II expressed that the texts in the materials decide the target words focused on, which seems to indicate that the general conceptualization is that it does not actually matter what words are learned. Much in the same vein, the teachers in Study I maintained that the words necessary to learn are communicatively useful words, which also puts the communicative content as the deciding factor for target vocabulary. In relation to this, both the teachers and the materials developers stated that they know what words students should learn based on their intuition and gut feeling. The

materials developers also mentioned that they pilot their materials with teachers and students, which means that they also play a part in deciding on the vocabulary content of the materials. Taken together, these results show that the *what* of vocabulary learning is not clearly defined by the participants in Studies I and II.

In Studies III and IV, the vocabulary learning objective can be understood by considering what words are given focus and learning support in the materials. In the analysis of the reading texts, it was found that although the texts encompass quite a substantial number of mid-frequency lemmas, which should be suitable target words for the students, the mid-frequency input is unlikely to be enough to support sufficient progression over three years of learning. When investigating what words are likely to be learned from reading the texts, that is, words recycled ten or more times, the vast majority of them are of high frequency in general English. No material recycles more than ten mid-frequency words ten or more times. Hence, the teaching materials do not support learning of mid-frequency words via reading only. Similarly, when investigating what words are focused on in the vocabulary exercises in the teaching materials, the majority of the words are of high frequency. This is perhaps even a more illuminative finding, as these words have been picked out during the development process, while the words recycled in the texts may be a result of chance. A conclusion that can be drawn from these findings is that there is not distinct vocabulary objective, at least in terms of word frequency, guiding the teaching materials analyzed.

The results of the studies suggest that there is no clearly defined vocabulary objective in the Swedish EFL classroom. The interview studies reveal that educators do not have a clear idea of how much vocabulary students need to learn. Further, the interviews show that teachers and materials developers decide on target vocabulary guided by intuition or based on the communicative context, which further points to an unclear definition of the vocabulary learning target. The textbooks focus on high-frequency words, even though the intended group of learners needs to encounter more mid-frequency words to develop in their learning. It thus appears unlikely that students are supported in learning suitable target vocabulary in the classroom.

### *Vocabulary learning in the classroom*

The dominant pattern in Studies I and II is that vocabulary learning is perceived as primarily an incidental process. Both the teachers and the developers interviewed stated that they believe that vocabulary learning occurs best under incidental conditions, that is, when students are engaged in meaning-focused activities, such as reading texts or watching TV. The studies further indicate that educators as a result perceive vocabulary development as a process that largely takes care of itself. The materials developers asserted that their main responsibility is to create engaging texts, which ties in with the general approach to vocabulary learning as mainly incidental. The teachers interviewed in Study I expressed that their role has changed, as they primarily should expose students to English now, rather than instruct them. In relation to the conceptualization of the importance of meaning-focused input and incidental learning, the understanding of vocabulary learning as most successful in context should be mentioned. This conceptualization is prominent in both Studies I and II, especially with regard to decontextualized vocabulary learning in the form of word lists and word-pair learning, which both the teachers and the developers stated that they are critical of. Besides learning in context, the materials developers in Study II also mentioned the importance of repetition and use for vocabulary learning.

When investigating the teaching materials, it was found that they provide good conditions for learning vocabulary when reading, in the sense that they encompass a suitable proportion of unknown words. It can be concluded that the materials are aligned with the reliance on reading for content as a source for vocabulary learning, as described by the participants in Studies I and II. The materials developers mentioned the importance of repetition and Study III reports that between 10% and 15% of the words in the texts are recycled ten or more times, which means that they include a substantial proportion of recycling. However, as mentioned in the previous section, the analysis of what words are recycled shows that although words are recycled, it is unlikely that the recycling constitutes good learning support for the intended group of students, as primarily high-frequency words are recycled. The investigation of vocabulary exercises identified that retrieval is a common feature of exercises and that learners are supported in their vocabulary development via retrieval. However, the proportion of exercises providing opportunities for using words never exceeds 35%. Moreover, the analysis also revealed that many of the

word-focused exercises do not provide any of the learning conditions studied and that they are primarily mechanical, matching exercises. While Studies III and IV indicate that learners are supported in acquiring words via reading in terms of the lexical distribution in the texts and via retrieval in exercises, it is clear that more complex vocabulary exercises supporting productive development are largely absent, as well as repetition of relevant target vocabulary.

To summarize, an understanding of vocabulary learning among the teachers and developers interviewed as being primarily incidental is a prominent result of Studies I and II. This is a finding that has consequences for how the teachers and developers attest to perceiving their roles as educators, as the conceptualization of incidental learning described by them is mainly learning without instruction or planned support. Both repetition and use were put forward as important by the materials developers and yet, Studies III and IV show that the learning support via use and repetition is insufficient in the materials studied. On the other hand, retrieval is supported well in the materials and also vocabulary learning via reading. The results thus reveal that while vocabulary learning via reading and retrieval is likely to occur when using textbooks, students are not supported by recycling or the opportunity to use target words. The studies synthesized here also indicate that educators largely conceptualize vocabulary learning as a process occurring without explicit support or word focus. It can therefore be concluded that the EFL classroom is likely to promote incidental vocabulary learning but that the suitability of teaching materials as supportive tools for both incidental and intentional learning is questionable.

## 6. Discussion

This thesis provides insights concerning the vocabulary learning support in the EFL classroom. In the previous chapter, the findings of the studies that make up the empirical contribution of the thesis are summarized and synthesized. In this chapter, the results are discussed and contextualized. Suggestions for further research are provided and the chapter ends with concluding remarks.

### Vocabulary learning support in the classroom

The present thesis directs attention to the Swedish secondary school EFL classroom and how it supports vocabulary learning. Given the complexity of word learning, the premise is that learners need assistance to succeed in their development and that if school expects all students to reach high levels of English proficiency, vocabulary learning support has to be provided in the classroom to ensure equivalent education for all students. The four empirical studies shed light on vocabulary learning support in the classroom in primarily two ways: the position and the treatment of vocabulary. While the former is a question of vocabulary in the wider context of EFL teaching and learning, the latter provides a closer understanding of the structured support offered to students in school.

#### *The position of vocabulary*

A central question for the language classroom is what should be focused on and given time. In Sweden, secondary school students only have two hours of EFL classes a week, which means that teachers have limited time to ensure that their students develop in their language learning in accordance with the learning objectives stipulated in the curriculum. The question of what should be given prominence in the classroom is the object of much scholarly debate, where the main dividing line as regards vocabulary concerns whether it should

be an aspect that is focused on explicitly in the classroom (e.g., Laufer, 2016; Schmitt, 2008) or an aspect that will take care of itself when learners work with other language activities (e.g., Krashen, 1989; McQuillan, 2016). Although the general consensus among vocabulary researchers is that a balanced language learning course encompassing both explicit focus on words and meaning-focused exposure is optimal for learning (cf. Nation, 2007), there is so far little knowledge about how educators perceive the position of vocabulary in the classroom. As the time in the classroom is the only shared language learning time for all students, knowledge of educators' perceptions can provide valuable insights regarding whether Swedish school offers equivalent EFL education for all learners, in terms of vocabulary learning support.

A principal pattern in Studies I and II is that both teachers and materials developers maintain that incidental learning from meaning-focused activities is the primary way that vocabulary is and should be learned in the classroom. The teachers in Study I stated that words are best learned when students engage in meaning-focused activities like watching TV or reading texts and the materials developers said that they support students' vocabulary learning mainly by writing texts that interest the intended target group. As these findings are in accordance with the results of other studies on Swedish EFL teachers' perceptions of language teaching by Schurz (2022) and Schurz and Coumel (2020), it is reasonable to assume that the incidental approach presented in Studies I and II may reflect a more general attitude to EFL teaching in Sweden. The teachers' firm belief in incidental learning identified in this thesis suggests that they are likely to organize their teaching around mere exposure to language and incidental vocabulary learning. This raises questions about the vocabulary learning support provided to students in school. Meaning-focused activities are not in themselves problematic. Rather, they have a natural place in the language classroom and, as pointed out by Henry (2019), making use of incidental learning activities in class may motivate learners as they resemble the activities they are used to outside of school. However, from a vocabulary perspective, a too heavy reliance on such activities may result in insufficient learning support. While learners do develop vocabulary when focusing on meaning (e.g., Puimège & Peters, 2019b; Webb & Chang, 2015b), studies reveal that each hour of incidental exposure to English only leads to a modest pick-up of a few words (e.g., Peters & Webb, 2018). As mentioned, students have only two hours of English classes a week,

which means that even constant exposure during these hours is unlikely to be sufficient to acquire the substantial number of new words that students need. Organizing the classroom around primarily incidental vocabulary learning, as is the situation indicated by the results in this thesis, can have serious implications for students' language development, as the amount of vocabulary learned is likely to be limited.

A possible explanation for the finding that teachers rely on language exposure as a source for language learning is their perceptions of how substantial the impact of EE is on their students' learning. In the interviews with the teachers presented in Study 1, several of them mentioned the prominence of EE in Sweden and referred to EE when explaining their understanding of vocabulary learning. The teachers' approaches to classroom teaching appear to be influenced by their ideas about the relationship between EE and their students' learning, in the sense that they perceive vocabulary instruction to be unnecessary. Similar results were found by Schurz et al. (2022) who argue that there may be a relationship between seeing the effects of EE on learning and favoring implicit learning in class. Henry and Cliffordson (2017) claim that EE also has a negative influence on Swedish students' motivation to learn English in school, as they are likely to see the informal learning outside of school as sufficient (see also Henry, 2014). It can be concluded that ideas about the strong connection between EE and language learning make a difference in the classroom and these may even negatively impact teachers' motivation to teach English. It is not surprising that teachers consider EE when planning their teaching, as it is a factor that will affect the classroom, in terms of, for example, students' different proficiency levels (cf. Sundqvist & Olin-Scheller, 2013) and they hence need to have their students' EE exposure in mind. However, it is nevertheless troubling that the teachers express such hesitance towards EFL instruction based on their understanding of how EE plays a part in their students' learning. While EE research suggests that substantial vocabulary learning can occur from incidental exposure (e.g., Olsson, 2011; Peters et al., 2019), the prerequisites for learning in and outside of class are very different, especially as the average Swedish student may encounter English outside of school 18 hours a week (Sundqvist, 2009) whereas the hours in class are limited to two a week. Although the teachers are correct in their assumption that EE can contribute to their students' learning, it is not reason enough to disregard the importance of instruction. In

class, time is limited and to ensure that learners develop, teachers cannot rely merely on exposure. The finding that knowledge of students' EE influences teachers' ideas of instruction in this way shows that researchers and teacher education need to better address the question of the relationship between formal and informal learning, as this is likely to impact the classroom and the learning support offered.

In relation to the position of vocabulary, another noteworthy finding of this thesis is that the educators interviewed expressed an opposition towards focusing on vocabulary in the classroom. As an example, both teachers and materials developers said that they are critical of word lists, as they do not believe that language can be learned by focusing on words in a decontextualized way. The teachers moreover stated that vocabulary is an integrated part of learning English and not a distinct learning objective in itself. It seems possible that these results could be attributed to the dominant communicative approach to language learning in Sweden. As mentioned previously, the curriculum advocates a CLT approach and Studies I and II also identified communicative patterns in the educators' statements, which is consonant with previous research on Swedish EFL teachers' perceptions (e.g., Schurz & Coumel, 2020). The critique of word focus reported in this thesis may thus come as no surprise, as CLT approaches typically do not give explicit attention to words (cf. Schmitt & Schmitt, 2020). However, within a CLT framework, the goal is to support students' development of communicative competence and to reach this, vocabulary is indubitably an important component. For instance, vocabulary has been found to significantly impact reading comprehension (e.g., Laufer & Ravenhorst-Kalovski, 2010) and oral fluency (Milton et al., 2010). In other words, communicative competence is reliant on vocabulary knowledge. Further, given the findings that attention to words can lead to more word learning (e.g., Peters, 2012), it can be concluded that not focusing on words in class can have serious implications for school's fulfillment of its responsibility for all students' learning. While CLT and form focus have traditionally been seen as opposing approaches in the language learning classroom (cf. Spada, 2007), giving vocabulary room within a CLT approach could vastly enhance the learning support provided. Bridging the opposition between CLT and vocabulary and reevaluating the position of vocabulary in the communicative classroom therefore appear necessary to facilitate learning in school.

The finding that vocabulary has a marginal position in the Swedish EFL classroom seems to suggest that vocabulary learning is taken for granted. One likely explanation for this is the general contention that Swedish students are good at English, as shown in their performance in international comparisons (European Commission, 2012a) and on national tests (Skolverket, 2023b). This general idea of the excellence of Swedish students is also typically connected to EE (see Sundqvist, 2020; Sundqvist & Olin-Scheller, 2013), which, as mentioned, challenges the role of the EFL classroom. When students are perceived to excel in their learning, in general and as concerns vocabulary specifically, it is perhaps not surprising that teachers favor naturalistic, implicit incidental learning. The favoring of incidental learning may, however, have considerable effects in the classroom, as argued above. Besides negative impact on general learning, the approach may also lead to Matthew effects, where the students who are already successful continue to develop, whereas the students in need of support lag behind (cf. Webb, 2020). Webb and Chang (2015a), as an example, have found that learners with larger vocabularies learn more under incidental learning conditions than novice learners. A classroom depending on exposure does therefore not only risk leading to too little learning in general, it also risks increasing the differences in proficiency among learners by not ensuring support for the students who need it the most. Regardless of learners' proficiency level, focusing on vocabulary is likely to ensure continued progression and deeper learning for all students. In terms of the organization of the EFL classroom, the results of this thesis thus raise the question of whether Swedish school ensures equivalent education where all students are provided with sufficient support to reach the language learning goals stipulated in the curriculum.

### *The treatment of vocabulary*

An important indication of vocabulary learning support is how the vocabulary component is treated in the classroom, as this illuminates both what words students can learn and in what ways this learning can occur. The classroom is a learning environment in which it is possible to control, to some extent, the input and learning conditions. Here, both teachers and teaching materials have the potential to influence the treatment of vocabulary, in terms of what vocabulary is focused on and how vocabulary is practiced (cf. Schmitt, 2008). Both

the vocabulary content and the teaching approach can have substantial impact on learning support. Within vocabulary research, many scholars argue that classroom-based vocabulary learning needs to follow research-based principles to make the learning effective within the time constraints of the classroom (Laufer, 2019; Newton, 2020). The four empirical studies that make up this thesis shed light on the support for students' in-class learning as they highlight how the vocabulary component is treated by educators and in teaching materials.

As concerns the treatment of vocabulary by teachers and materials developers, Studies I and II both indicate that vocabulary is perceived as an aspect that does not need to be planned or approached in a principled manner. This was particularly prominent among the materials developers who maintained that the text decides the vocabulary content. This perception is also reflected in Study I, where the teachers did not provide any clear learning objectives in terms of vocabulary. Even though Studies I and II identify several areas where the interviewees have research-based knowledge of vocabulary, such as the importance of recycling or development of vocabulary depth, they did not refer to any methods for implementing this in their practice in a systematic way. Instead, it was found that they appear to expect vocabulary learning to occur regardless of any conscious planning attempts, which may partially be explained by their reliance on meaningful exposure discussed above. If vocabulary learning in naturalistic contexts suffices, this means that vocabulary teaching and learning do not need to be planned. In this respect, the studies correspond to previous research on Swedish EFL teachers' views of the role of the EFL classroom. For instance, Schurz (2022) reports that Swedish EFL teachers do not plan their grammar teaching and do not have a clear and systematic idea of what grammar aspects to teach their students (see also Schurz & Coumel, 2020). Although there are many learning opportunities in meaningful exposure, it is, as argued by Newton (2020), very unlikely that these opportunities are used in the best way if the vocabulary component is not planned in the classroom, to ensure, for example, recycling or focus on useful words. In relation to Schmitt's (2008) proposition that teachers and materials developers are two main agents in making sure that learners succeed in their vocabulary development, it is noteworthy that the teachers and developers interviewed expressed such an arbitrary approach to this aspect of language teaching.

All four studies offer insights concerning the treatment of target vocabulary and they all show that the EFL classroom does not provide systematic support in terms of what words should be learned. In the interviews with both teachers and materials developers, they attest to deciding on target words using intuition. Studies III and IV reveal that Swedish EFL textbooks to a large extent focus on high-frequency words in both recycling in the texts and word-focused exercises, although the intended learners need support in learning primarily mid-frequency vocabulary (cf. Schmitt & Schmitt, 2014). Consequently, the words encountered and practiced in the classroom are not consciously chosen following a lexical selection principle, such as the frequency principle. It is true, however, that deciding target vocabulary based on intuition can be a way of determining context-specific words that are important to know as well, as Dang et al. (2022b) demonstrated in their analysis of learner knowledge and the predictive power of word frequency and teacher intuition. Yet, to ensure that students learn words that help them develop in their language learning, the choice of target vocabulary cannot be completely left to chance. As stated, this can have substantial effects on the students' goal achievement. Even though Swedish students perform fairly well on proficiency tests (e.g., European Commission, 2012a), recent studies indicate that they struggle with academic vocabulary in upper secondary school and at university (Eriksson, 2023; Warnby, 2023a). Not reaching sufficient levels of academic vocabulary is likely a consequence of an unplanned approach to vocabulary, as academic vocabulary is unlikely to occur frequently enough to be acquired in naturalistic discourse in schools (cf. Nagy & Townsend, 2012). The consequences of not planning the vocabulary component can hence be dire for learners, as this could lead to a general stagnation in their language learning. Having an insufficient vocabulary when entering higher education or when trying to use English in authentic contexts will lead to considerable issues, in terms of both comprehension and production. The implications of the unplanned approach to vocabulary identified in this thesis can thus be far-reaching.

The absence of a principled approach to target vocabulary in both teaching materials and educator conceptualizations raises questions not only relating to the learning support in the classroom, but also about the effects on language learning motivation. As mentioned above, the EFL classroom is challenged by the informal learning taking place outside of school, which leads many students

to be critical of the instructed, inauthentic learning in school, as suggested by Henry (2013). More specifically, an issue facing the EFL classroom is that learners may fail to see the importance of learning English in school, as they learn so much outside of school. The EFL classroom therefore needs to be well organized so that learners feel that they develop and are challenged in school as well, by, for instance, ensuring that they learn relevant language. This can be partly achieved by ascertaining that students encounter and practice language on a suitable lexical level. With this in mind, the results of Study IV, where it was found that the words practiced in exercises are primarily of high frequency and hence likely to already be known to learners, are worrying. Even though high-frequency words can feel motivating because they are seen as useful (e.g., Laufer & Nation, 2012), students at this intermediate level of learning are unlikely to feel challenged by them and the vocabulary exercises may not seem helpful for their development. A potential risk of unmotivating target vocabulary in word-focused tasks is that learners are strengthened in their demotivation for instructed development of English. Having a principled approach to target vocabulary is consequently not only important to ensure learning support, but also to motivate learners to learn English in school.

It is possible that the results indicating that target vocabulary is not planned are due to the approach to vocabulary in the curriculum. The syllabus for English offers no guidance on what vocabulary should be learned for a specific level of learning. The commentary material even states that there is no shared language knowledge that all students need (Skolverket, 2022a). This stands in stark contrast to the frequency-based approach advocated in vocabulary research, where lexical selection is seen as having a determining role in learning success (Vilkaitė-Lozdienė & Schmitt, 2019). The results reported here can thus be understood as teachers and developers merely following the existing curricular guidelines. A similar conclusion can be drawn concerning the results that educators do not position vocabulary as central in the EFL classroom. Snoder (2022) argues that the design of the Swedish curriculum, where vocabulary is seldom mentioned at all, risks leaving vocabulary unattended in the classroom. An implication of this study could be that the Swedish syllabus for English in secondary school needs to be changed in terms of vocabulary to ascertain that vocabulary is considered and planned in a systematic way.

Although a curricular change appears necessary, it is important to consider what this change could and should entail more specifically. One approach to

this is provided by Warnby (2023b), who argues that frequency-based guidelines should be included in the Swedish curriculum, in the hope that they would direct teachers' attention to what words should be taught. He suggests, as an example, that the curriculum could provide guidance stating that students leaving secondary school need to know the 2,000 most frequent words of English to receive a passing grade. A similar approach has been used by Laufer (2023) in her development of a lexical syllabus for Israeli EFL education. While such a curricular change would ensure that teachers consider word frequency in their classrooms, a change of this kind would impact not only the vocabulary component but be an alteration of the entire language learning approach of the syllabus. In this context, it is thus important to consider the possible negative effects of such a change as well. It is likely that clear and distinct numerical guidelines may construe language learning as an easy and linear process where word knowledge is easily assessed on a form-meaning level. Milton and Hopwood (2022) state that this is likely to promote a mechanical teaching situation and take away the agency of the teachers, who have knowledge of their students' context-specific needs (see also Dang et al., 2022b). Moreover, guidelines of this kind direct attention to primarily vocabulary size. However, Webb (2012), among others, stresses that vocabulary size does not ensure proficiency and González-Fernández and Schmitt (2020) emphasize that learning a word is an incremental process involving the development of different word knowledge aspects. Given these insights about the complexity of vocabulary development, it is questionable whether a curriculum should promote a checklist approach where word knowledge is construed as something easy to measure with a one-to-one relationship with language proficiency. Although clear vocabulary learning objectives might be helpful, there is therefore reason to approach curricular changes of this kind with caution, as they may have overarching effects on what kind of teaching and learning is focused on in class. The position taken in this thesis is that a curricular change is necessary but should not be too comprehensive, in the sense that the curriculum should not become too prescriptive. Instead, it should rather focus on giving teachers guidance by directing their attention to the importance of vocabulary and a principled selection of target words.

The analysis of the learning conditions offered in the teaching materials part of this study also indicates a lack of systematic approach to the vocabulary

component in the classroom. Studies III and IV identified some supportive aspects of the textbooks, such as the proportion of known vocabulary, which facilitates incidental vocabulary learning from reading, and the proportion of word-focused exercises that require students to retrieve words. In these respects, the results point to a potentially principled approach to vocabulary, ensuring that texts are possible to read and learn from and that words are retrieved. The design of the materials appears to be aligned with research-based findings in this regard, which could indicate a systematic approach. However, the textbook studies also revealed aspects that do not suggest a structured approach to vocabulary, such as the recycling of primarily high-frequency words and the scarcity of exercises requiring students to use words. Similar results have been reported by, for instance, Brown (2011) and Norberg and Nordlund (2018). These results are concerning as the textbook is the tool in the classroom most suitable for a principled approach to vocabulary. As pointed out by Schmitt (2019), it is unreasonable to expect that teachers can provide substantial recycling of important words in the classroom. A text-based material, on the other hand, offers the possibility to track and systematize this quite easily. If textbooks are to aid teachers in the classroom, they have to be principally planned in a way that ensures the provision of learning conditions such as the recycling of important vocabulary. Taken together, the results of Studies III and IV corroborate earlier textbook studies indicating a lack of planned approach to vocabulary (e.g., Nordlund, 2016) and Study II reports that the developers attest to not planning vocabulary. A conclusion that can be drawn from the present thesis is hence that Swedish EFL teaching materials are not designed following principles about vocabulary. As long as the vocabulary component is left mainly unplanned in teaching materials, they will not offer sufficient vocabulary learning opportunities. This thesis, together with previous research, thus shows the importance of publishing houses taking an active role in ensuring that vocabulary is given systematic consideration in the development of teaching materials.

The focus of this thesis is primarily on teaching materials when discussing the treatment of vocabulary, as they are the primary tools to ensure that the classroom is systematically organized following different research-based principles (cf. Schmitt, 2019). Given that vocabulary learning is greatly facilitated by systematicity, the treatment of vocabulary in textbooks is likely to have considerable consequences for learners. It should, however, be noted that

other qualifications for good EFL materials than lexical systematicity are also advocated, such as providing authentic encounters with the target language and motivating learning with engaging texts and tasks (e.g., Mishan, 2005; Tomlinson, 2013b). In materials development research, the general approach seems to be that a teaching material focusing on language aspects is opposed to a text-driven teaching material, where the focus is engaging and authentic texts (Tomlinson, 2013a, 2017). The contention of this study however is that a text-driven approach could be complemented by a vocabulary perspective, to ensure that materials are both engaging and supportive. Even if engagement and authenticity guide the overall construction of a material, the finished set of texts and tasks could be adjusted with methods from vocabulary studies. Corpus data could be used to construct word lists or adapt the linguistic content of a text (Nation, 2016b) and frameworks such as the ILH (Laufer & Hulstijn, 2001) could be used to ensure that tasks support learning. This would decrease the authenticity by tampering with the input, but it would not necessarily decrease the authentic feeling of the input and the positive impact of engaging the learners (cf. Henry, 2013). In this way, the textbook used in the classroom could ascertain that time is spent on texts and tasks that are likely to lead to learning, as pointed out by Guariento and Morley (2001), while still being motivating and engaging. A principled approach to vocabulary must not necessarily be a primary materials development approach in itself. Instead, combining an explicit vocabulary focus with a text-driven approach can be a way of developing materials that offer substantially better support for overall language learning in the classroom.

To summarize, it can be concluded that the vocabulary component in the Swedish EFL classroom does not appear to be an object of principled selection or planning, neither in terms of target vocabulary nor learning conditions provided by teachers or teaching materials. The effects of an unplanned approach on students' learning and motivation can be dire. It is therefore worrying that a conclusion that can be drawn from this thesis is that teachers and materials developers do not seem to be aware of how crucial it is that vocabulary is systematized in the classroom. This stresses the importance of research-based pre- and in-service EFL teacher training as well as a research-based approach at publishing houses. If learners are to reach the high levels of proficiency expected and also reach academic literacy, vocabulary has to be considered in

a principled manner in the classroom. The results presented here indicate that this is unlikely to occur in Swedish secondary school EFL classrooms today.

### **Suggestions for further research**

This thesis offers new insights concerning vocabulary in an educational context. By studying both the ideas and materials that govern the classroom, it illuminates the learning opportunities provided to students. The approach of this thesis directs attention to school and its organization, rather than the process of vocabulary learning. These are elements that generally have received little attention in vocabulary research, however, this thesis shows that relevant insights can be achieved with an educational approach. A suggestion for continued research could thus be to direct attention to language education from a vocabulary learning perspective even more, to further the knowledge of how vocabulary is positioned and treated in EFL classrooms today. Studies of this kind would add to the understanding of vocabulary learning in situ and give practice-based knowledge of how it occurs and is supported in the classroom.

The present thesis makes use of both qualitative and quantitative methods. Studies I and II demonstrate that valuable insights can be reached by interviewing important agents in language education. Additional studies focusing on conceptualizations of vocabulary could further the understanding of whether research results have an impact on practice. While the field is currently characterized by quantitative research (Dang et al., 2023), often in the form of experimental or quasi-experimental studies, more qualitative vocabulary research could widen the field and deepen the understanding of vocabulary in an EFL context. As a complement to interview studies, questionnaire studies with larger groups of informants could also investigate whether the vocabulary learning beliefs identified in Study I are representative of EFL teachers more generally.

Based on the results presented here, it can be concluded that more analyses of teaching materials are warranted to establish to what extent they support learning and are suitable for use in classrooms. Studies could also seek to discern how to construct good materials from a vocabulary perspective, as this would provide useful guidance for materials developers. Vocabulary researchers could moreover continue the work with developing tools that can

be used when designing materials, either as a developer or an individual teacher. Easy tools that help systematize the classroom, such as vocabulary profilers, can play a central part in ensuring that learners are supported in their learning. Another research direction could be to focus on how learners actually approach vocabulary tasks, as this would be useful knowledge when constructing materials. Given the results of Widholm's (2020) investigation concerning materials use in religious education in Swedish classrooms, namely that teachers use a variety of different materials besides the published books, additional knowledge about how materials are used in the Swedish EFL classroom would also be useful.

A conclusion that can be drawn from this thesis is that there is a gap between vocabulary research and EFL teaching practice. It has been shown that there are considerable discrepancies between the suggestions from research and educators' attitudes to vocabulary and the design of teaching materials. To bridge this gap, a possible line of action could be to increase the collaboration between researchers and teachers in vocabulary research. As is promoted in, for instance, practice-based educational research, a way to generate knowledge that makes a difference in the classroom could be to let in-service teachers ask questions for investigation. In this way, the results of studies are more likely to impact and improve language education, as they provide answers to the needs present in the classroom. Moreover, while vocabulary research typically is characterized by experimental and quasi-experimental studies that generate knowledge about how vocabulary learning occurs, more intervention studies where different teaching methods are tested in a naturalistic teaching context could be a way to further the field and bridge the gap between theory and practice.

Given the increasing expectation that education should be based on research, both in Sweden (Education Act, 2010) and internationally, the results presented here are worrying. A suggestion for vocabulary researchers could thus be to consider how research findings can be made available to teachers in a way that may impact their practice. Whereas vocabulary research generally offers pedagogical implications in research papers, it may be relevant to consider other arenas to reach teachers and materials developers. One proposal is to transfer and transform research into guidelines for materials development, teacher guides and other adapted presentations. Moreover, this thesis indicates that teachers struggle with positioning vocabulary within the larger teaching

context, in relation to aspects like CLT and EE. Researchers could perhaps seek to situate findings in the context relevant to teachers and learners to support the implementation of findings. This could, for example, be addressing more overarching questions such as how the results of a study have implications in a communicatively oriented language classroom.

### **Concluding remarks**

School has a responsibility for all students' development in English. Given the complexity of learning the vocabulary of a language, the EFL classroom needs to provide learning support for students, adapted to their level of learning. The findings of this thesis show that vocabulary is not given a prominent position in the Swedish EFL classroom and that vocabulary instruction is not systematically planned. Neither EFL teachers nor teaching materials appear likely to organize the EFL classroom in a way that will support students sufficiently in their learning. These results raise questions concerning whether school provides equivalent education for all students and the overall learning success of Swedish students. To ensure sufficient learning support, the words in school thus need to be given prominence and systematic thought by both teachers and in teaching materials.

## Summary in Swedish – Svensk sammanfattning

### *Ord i skolan: En studie av ordinlärningsstöd i det svenska engelskklassrummet*

Föreliggande avhandling riktar uppmärksamhet mot engelskklassrummet på högstadiet och det stöd som elever får i den kontexten. Under högstadiet förväntas svenska elever nå en B1-nivå i engelska, vilket innebär en relativt utvecklad språkförmåga. Det är skolans uppdrag att se till att alla elever får möjligheter att nå dessa mål inom skolans väggar. På grund av den stora mängd fritidsengelska som många elever möter och elevers relativt höga måluppfyllelse i internationella mätningar är engelskämnet i Sverige särskilt intressant att undersöka eftersom det därför riskerar att tas för givet. Även om elever kan lära sig mycket språk utanför skolan så har skolan ett ansvar för att säkerställa en likvärdig undervisning där alla elever får möjligheter att lyckas.

En avgörande del av att lära sig engelska är att utveckla sitt engelska ordförråd. För framgångsrik kommunikation krävs både ett stort ordförråd och en djup och varierad kunskap om orden. Att utveckla ett ordförråd som stöttar kommunikation i engelska tar dock tid och är komplicerat. För framgångsrik ordinläring behöver elever lära sig väldigt många ord, mycket om varje ord samt de mest användbara orden (vilket i denna avhandling operationaliseras genom ordfrekvens). Ordinläring kräver dessutom repeterade möten med ord och ordinläringen stötts av djup och meningsfullt engagemang i mötet med orden. Om en elev ska nå det ordförråd som krävs för god engelsk språkförmåga krävs således mycket tid och energi och detta kan ses som ett oöverkomligt hinder i klassrummet, där tiden är väldigt begränsad. Forskare har därför argumenterat för att engelskundervisning måste vara planerad och systematisk så att eleverna får möjlighet att utveckla det ordförråd som krävs.

Tidigare forskning har bidragit med kunskap om hur ordinläring går till och hur klassrummet skulle kunna stötta elever. Forskning som fokuserar på klassrummet och undersöker hur vokabulär hanteras i en undervisningskontext är emellertid begränsad. Denna avhandling fyller därmed en forskningslucka genom att fokusera på vokabulär i skolan samt synliggör relationen mellan

forskning och praktik, samt förutsättningarna för ordinlärning som ges i denna kontext.

Avhandlingens övergripande syfte är att belysa stöd för ordinlärning i det svenska engelskklassrummet på högstadiet. Avhandlingen bygger på premissen att elever behöver strukturerat ordinlärningsstöd för att säkerställa progression i språkutvecklingen, i linje med målen i läroplanen.

Avhandlingen besvarar följande forskningsfrågor:

1. Hur konceptualiserar lärare och läromedelsförfattare ordkunskap och ordinlärning?
2. Vilka ord kan elever lära sig från texter och ordövningar i läromedel som används i svenska skolor?
3. Vilka förutsättningar för ordinlärning erbjuds i texter och övningar i de undersökta läromedlen?

## Metod och material

	<b>SYFTE</b>	<b>EMPIRISKT MATERIAL</b>	<b>ANALYSMETOD</b>
<b>I</b>	Att belysa svenska engelsklärares konceptualiseringar av ordkunskap och ordinlärning.	Semistrukturerade intervjuer med engelsklärare ( $n = 14$ )  11 timmar och 21 minuter	Tematisk analys
<b>II</b>	Att belysa vad som vägleder och påverkar svenska läromedelsförfattares beslut gällande ordinnehåll i läromedel för engelska.	Semistrukturerade intervjuer med läromedelsförfattare ( $n = 8$ )  9 hours and 6 minutes	Innehållsanalys
<b>III</b>	Att avgöra i vilken utsträckning ordinnehållet i svenska läromedel för engelska stöttar oavsiktlig ordinlärning för högstadieelever.	Texter ( $n = 550$ ) i fem läromedelsserier  341,648 löpord	Ordfrekvensanalys Repetitionsanalys
<b>IV</b>	Att kartlägga övningsstrukturer i ordfokuserade övningar i svenska läromedel och vilka förutsättningar för ordinlärningar de erbjuder.	Ordövningar ( $n = 537$ ) i tre läromedelsserier  4,950 målörd	Ordfrekvensanalys ILH-informerad analys

För att besvara avhandlingens forskningsfrågor har fyra empiriska studier genomförts med olika studieobjekt och metoder (se tabellen ovan) med syfte att på olika sätt belysa stödet för ordinlärning i klassrummet. I avhandlingen

används kvalitativa intervjustudier för att nå en djup förståelse av de underliggande idéer och principer som vägleder både lärare och läromedelsförfattare i deras arbete. Detta baseras på idén att uppfattningar påverkar vad som fokuseras i klassrummet och i läromedel och att detta belyser vilket stöd som är troligt att ges i en skolkontext. Vidare analyseras lexikala aspekter i läromedel i syfte att kartlägga ordinlärningsstödet i klassrummet. Detta val bygger på förståelsen att läromedel troligen är det mest använda strukturerade verktyget i klassrummet och att läromedlets utformning följaktligen kan ha betydande påverkan på hur klassrummet organiseras och vad som fokuseras på i undervisningen.

I avhandlingens studier analyseras intervjudata, läromedelstexter samt ordövningar i läromedel. I Studie I som fokuserar på engelsklärare analyserades intervjudata med hjälp av en tematisk analys för att identifiera övergripande teman i hur lärare förstår ordkunskap och ordinläring i engelska. I avhandlingens andra studie analyserades intervjuerna med hjälp av innehållsanalys för att kartlägga principer gällande läromedel och ordkunskap som flera författare lyfter fram eftersom detta innebär att principerna väglett arbetet med flera olika läromedel. I Studie III fokuseras texterna i läromedlen och de analyseras med avseende på deras lexikala nivå, vilka ord som finns i texterna samt hur mycket de repeteras. I den fjärde studien analyseras vilka ord som tränas i vokabulärövningar i läromedel, samt huruvida övningarnas utformning stöttar ordinläring med fokus på användning och återkallning (*retrieval*).

## Resultat

### Studie I

Avhandlingens första delstudie undersöker svenska engelsklärares syn på ordkunskap och ordinläring. Datamaterialet består av 14 semi-strukturerade intervjuer med engelsklärare på högstadiet och materialet analyserades genom en tematisk analys. I resultatet presenteras tre teman som speglar de huvudsakliga vokabulärattityderna identifierade i studien, nämligen i) *ordförrådets storlek och kommunikation*, ii) *ordförrådets djup* och betydelser samt iii) *oavsiktlig ordinläring*.

Det första temat visar att engelsklärarna fokuserar på kommunikativ kompetens i klassrummet. I intervjuerna framhölls ordförrådet och dess storlek som

en viktig del av språkförmågan. I detta tema visas dock även att fokuset på kommunikation kan leda till att ordkunskap enbart ses som en integrerad del av att lära sig ett språk och således inte som något som behöver beaktas i engelskundervisningen. Denna attityd syntes i lärarnas utsagor gällande vilka ord elever bör lära sig i klassrummet. De hävdade att det inte finns några särskilda ord som elever ska lära sig utan att det räcker att orden är kommunikativt användbara för dem.

Det andra temat belyser att lärare i första hand förstår djup ordkunskap som en fråga om semantisk kunskap. De uttryckte att kunskap om betydelse är nödvändigt för framgångsrik kommunikation, vilket relaterar till det kommunikativa fokuset nämnt ovan. Lärarna beskrev ordkunskap i termer av synonymer och kunskap om ords betydelser. I båda temana återfinns en kritik mot gloslistor då lärarna sa att de anser att fokus på ord utan kontext är ineffektivt och att faktumet att många ord är polysema gör gloslistor till ett olämpligt verktyg i klassrummet. De förklarade att elever kan bli förvirrade om de endast får ta del av en betydelse av ett ord, vilket sker i en gloslista, eftersom ord ofta är flertydiga.

De första två temana berör lärarnas syn på ordkunskap medan det tredje och sista temat handlar snarare om hur de förstår ordinläring. I studien framkom att lärarna ser ordinläring som en process som framför allt sker oavsiktligt. Lärarna nämnde att de tror att den mest framgångsrika ordinläringen sker när elever gör aktiviteter där fokus ligger på innehållet snarare än språket. De sa även att elever ofta behöver möta språket för att lära sig nog många ord och att detta hela tiden sker i mötet med språket utan att elever behöver anstränga sig eller medvetet fokusera på orden. Analysen belyser att en möjlig förklaring till denna syn på ordinläring kan vara lärarnas erfarenhet av hur mycket fritidsengelskan (*Extramural English*) och innehållsfokuserade möten med språket påverkar deras elevers språkinläring.

Sammanfattningsvis visar studien att lärarna har en kommunikativ attityd till ordinläring. Deras främsta motivering för ordinläringens betydelse är ordens funktion som kommunikativt verktyg och analysen visar även att de inte betraktar ord som en egen distinkt del att ta hänsyn till i klassrummet. Vidare lyfte lärarna att ordinläring primärt är en oavsiktlig process som sker utan aktiva försök från elever eller lärare. En slutsats är därför att även om lärarna sa att ordkunskap är viktigt så visar resultaten att det är en del av undervisningen som inte ges explicit fokus och stöd från lärarna i klassrummet.

## Studie II

Den andra delstudien i avhandlingen handlar om vad som påverkar svenska läromedelsförfattares beslut rörande ordinnehållet i läromedel i engelska på högstadiet. I studien intervjuades åtta läromedelsförfattare som har skrivit några av de mest använda läromedlen på svenska högstadieskolor. Materialet analyserades genom en induktiv innehållsanalys med syfte att identifiera övergripande principer som används vid utvecklingen av olika läromedel. Analysen identifierade principer i författarnas utsagor som handlar om läromedlet som helhet, ordinlärning, ordinnehåll och gloslistor.

I studien presenteras två övergripande principer som rör läromedlet som helhet, nämligen *texten kommer först* och *läromedlets stöttande funktion*. Dessa principer identifierades i alla intervjuer. Läromedelsförfattarna sa att det primära syftet när de skapar läromedel är att skriva engagerande texter som eleverna kommer att uppskatta. Detta innebär att texternas innehåll framhålls som viktigare än språkliga aspekter såsom ordinnehåll eller grammatiska aspekter. Deras textfokus relaterar även till deras syn på ordinlärning, nämligen att det är en oavsiktlig process som sker primärt i mötet med ett engagerande innehåll på målspråket. Läromedelsförfattarna uttryckte att ett av deras huvudsakliga uppdrag är att stötta lärare och elever genom att erbjuda ett läromedel som är målgruppsanpassat, enkelt att använda och som följer läroplanen. För att se till att läromedlen är stöttande sa författarna att de ofta testar delar av sina läromedel i olika klasser under framtagningsprocessen. De nämnde att lärare och elevers återkoppling under denna process är en avgörande faktor i bedömningen om en text har ett lämpligt konceptuellt och språkligt innehåll.

Studien identifierade fyra principer gällande ordinlärning som påverkar läromedelsförfattarna i deras arbete. Dessa principer beskrivs i studien som i) *inga gloslistor*, ii) *kontext*, iii) *repetition* och iv) *användning*. Läromedelsförfattarna uttryckte en kritisk syn på gloslistan som verktyg för ordinlärning och således gloslistans funktion i läromedel eftersom deras hållning är att språk inte kan utvecklas utan kontext. De hävdade att ordinlärning snarare sker när elever möter ord i meningsfulla och engagerande kontexter, vilket relaterar till textfokusets beskrivet ovan. De uttryckte även att ordinlärning sker genom repetition och att ord används men hade inga tydliga metoder för hur detta säkerställs i läromedlen. Analysen genererade även fyra principer rörande ordinnehållet i läromedlen, nämligen i) *texten föregår ordinnehållet*, ii) *proportionen av nya ord*, iii) *semantiska fält* och iv) *relevans och användbarhet*. Återigen, de

primära principerna i materialet relaterar till ett fokus på texten, eftersom författarna sa att texten avgör vilket ordinnehåll som finns i läromedlet. De förklarade att ordinnehållet är underordnat en bra text och att texten alltså skapar ordinnehållet, snarare än tvärtom. Trots detta textfokus var det även tydligt att författarna tänkte på att inte ha för många nya ord, att de bör komma från relevanta semantiska fält och att orden ska vara användbara för eleverna.

Läromedelsförfattarnas utsagor präglades också av principer gällande gloslistans utformning. I studien presenteras fyra stycken: i) *stöttande funktion*, ii) *utmanande ord*, iii) *magkänsla* och iv) *inte traditionella översättningsglosor*. Som tidigare nämnts uttryckte läromedelsförfattarna en kritik mot gloslistan, men de sa samtidigt att de inkluderar gloslistor i sina läromedel eftersom de stöttar läsförståelse och sparar tid för lärare. De sa att gloslistan bör innehålla utmanande ord och att de bestämmer vilka ord de tar med baserat på magkänsla och intuition. De nämnde även att de försöker att inte skapa traditionella översättningsgloslistor eftersom de inte tror att det är så elever lär sig ord bäst. De sa att istället för översättningar försöker de att skapa listor med exempelmeningar, definitioner eller synonymer.

Studie II visar således att en huvudsaklig princip hos svenska läromedelsförfattare är att ordinlärning är oavsiktlig och sker i kontext. Läromedelsförfattarna uttryckte ett starkt textfokus, vilket påverkar hur de designar läromedel. Analysen visar att detta leder till att de inte beaktar ordinnehållet nämnvärt under designprocessen eftersom texten i sig själv är tillräcklig som stöd. Sammantaget visar resultaten att svenska läromedel i engelska konstrueras med ett textfokus, vilket kan ha stor påverkan på hur orden behandlas och planeras.

### Studie III

Avhandlingens tredje studie syftar till att belysa i vilken utsträckning läromedlens texter stöttar elevers oavsiktliga inlärning. I studien analyserades texterna i fem serier av läromedel för högstadiet, vilket totalt innefattar femton böcker. Med tanke på målgruppen baserades analysen på premissen att eleverna redan har ett relativt stort ordförråd och att de följaktligen behärskar de mest frekventa orden i engelskan. Fokus i analysen var därför de så kallade mellanfrekventa (*mid-frequency*) orden. I studien användes korpusbaserade metoder och ordfrekvensanalys för att undersöka texterna. Texterna analyserades med avseende på deras lexikala egenskaper och repetitionen av ord och dessa

resultat utvärderades i relation till huruvida läromedlet har ett lämpligt innehåll för målgruppen.

Textanalysen visar att läromedlen har en lämplig andel kända ord i texterna. Ungefär 95% av orden i texterna är högfrekventa ord och därför troligen bekanta för eleverna. Detta innebär att den genomsnittliga svenska högstadie-eleven bör kunna läsa och förstå texternas innehåll från ett lexikalt perspektiv. Eftersom oavsiktlig ordinläring genom läsning bara kan ske om elever kan läsa obehindrat betyder dessa resultat att en avgörande premis för oavsiktlig ordinläring finns i läromedlen. Studien undersökte även hur många olika ord som elever möter i texterna. I de undersökta läromedelsserierna finns mellan 700 och 1400 olika mellanfrekventa ord. Trots att detta är en relativt hög siffra är det i denna kontext bedömt som för lågt, eftersom elever behöver lära sig tusentals ord under högstadiet om de ska följa förväntad progression. Repetitionsanalysen visar att mellan 10 och 15% av alla lemmor (d.v.s. ett basord och dess grammatiska böjningar) repeteras tio gånger eller mer, vilket Studie III har som skiljelinje för tillräcklig repetition. På ordklassnivå skiljer sig repetitionen en del. Det är en större andel av verben och adverbena som repeteras till denna grad än andelen substantiv och adjektiv. Resultaten visar även att nästan alla ord som repeteras tio gånger eller mer är högfrekventa ord i engelskan och troligen är det därför ord som eleverna redan kan. Mindre än tio ord av de viktiga mellanfrekventa orden repeteras tio gånger eller mer i någon läromedelsserie. Analysen visar alltså att läromedlen inte erbjuder goda förutsättningar för att lära sig mellanfrekventa ord oavsiktligt från texterna.

Studien visar att läromedlen inte stöttar oavsiktlig ordinläring på ett tillräckligt sätt. Trots att texterna är läsbara för elevgruppen så kan texterna inte beskrivas som stöttande för eleverna eftersom de inte är strukturerade på ett lämpligt vis, med avseende på repetition, där texternas konstruktion knappast stöttar inläring av några ord alls. Detta torde få stora konsekvenser för elevers ordinläring.

#### Studie IV

Den fjärde studien fokuserar på ordövningar i läromedel och huruvida de stöttar ordinläring. Det empiriska materialet består av ordövningarna i tre läromedelsserier för högstadiet, alltså nio böcker. I studien analyserades målorden som eleverna arbetar med i övningarna, samt vilka förutsättningar för ordinläring som finns i övningarnas design. Likt Studie III var de mellan-

frekventa orden i fokus eftersom de är lämpliga målord för svenska högstadielev. Målorden analyserades genom att de jämfördes med ordfrekvens i allmän engelska, medan förutsättningarna för ordinlärning studerades genom en modifierad form av ramverket *The Involvement Load Hypothesis*. Övningarna kategoriserades i relation till kategorierna Search/Retrieval och Evaluation samt nivåer av dessa kategorier, vilket belyser huruvida övningarna kräver att elever återkallar (*retrieve*) målorden och/eller använder dem för att genomföra uppgiften.

I studien framkom att alla läromedel framför allt innehåller övningar där elever övar på högfrekventa ord. Andelen högfrekventa ord bland läromedlens målord är konsekvent över 50% och i vissa läromedel är det mer än 70% av orden som är högfrekventa. Detta innebär att en väldigt stor andel av orden som eleverna övar på i läromedlen är ord som eleverna troligen redan kan. Studien visade även att det är få mellanfrekventa ord som övas, mellan 259 och 397 ord i de olika serierna. I inget av läromedlen får elever således möjlighet att öva på mer än 400 lämpliga målord under tre års ordfokuserat arbete i läromedlen. Läromedlen verkar med andra ord inte erbjuda tillräcklig övning av användbara målord för elevgruppen.

Ett huvudsakligt mönster i analysen är att läromedlen innefattar många övningar där elever ombeds återkalla ord, antingen målordets form eller betydelse. Mellan 55% och 80% av övningarna kräver någon form av återkallning men det varierar huruvida det är mest återkallning av form eller betydelse mellan läromedlen. Det är, å andra sidan, en betydligt lägre andel av övningarna där elever förväntas använda målorden. Inget läromedel har mer än 35% övningar av detta slag. De användningsfokuserade övningarna är framför allt fylleriövningar, där elever förväntas använda ord i ett förutbestämt sammanhang. Det är mer ovanligt att elever uppmuntras att använda ord i mer fria kontexter. Den allmänna analysen av förutsättningar för ordinlärning visar att återkallning är vanligare än användning i läromedlens ordövningar. I studien analyserades även hur återkallning och användning samspelar i olika övningar. I detta avseende återfanns stor variation inom materialet, men vissa allmänna mönster kunde identifieras. Analysen visade exempelvis att övningar som inte kräver att elever använder ord i regel inte heller kräver att elever återkallar ord. Detta innebär att det finns många övningar i läromedel som inte innehåller någon av de förutsättningar som studien fokuserat på och som är tydliga indikatorer på ordinlärningsstöd. Ett annat mönster som framträdde i

analysen är att elever sällan ombeds använda ord fritt och samtidigt återkalla målordens form, vilket skulle innebära den starkaste typen av ordinlärningsstöd inom det använda ramverk. Analysen visar på en variation i övningsdesign, men ett tydligt mönster är att ordinlärningspotentialen sällan maximeras i detta avseende.

Studien visar sammanfattningsvis att ordövningarna i läromedlen inte stöttar ordinläring på ett tillräckligt sätt. Elever erbjuds få möjligheter att öva ord som är rimliga målord för dem, vilket påverkar hur effektiva övningarna är. Resultaten visar även att trots att elever får återkalla ord ofta får de sällan använda orden på kreativa sätt, samt att många övningar varken kräver återkallning eller användning. Den sammantagna bilden indikerar alltså att elever får bristfälligt stöd från läromedlens ordövningar.

## Syntes

På en övergripande nivå visar resultaten från Studie I att lärare betraktar ordinlärningsmålet som en fråga om både ordförrådets storlek och djupet av ordkunskap. I relation till vad som utgör ordinlärningsmålet mer specifikt så uttryckte både lärarna och läromedelsförfattarna en vag målbild. I studierna återfanns inga tydliga riktlinjer med avseende på hur många ord elever behöver kunna eller vilka dessa ord är. Snarare är detta något som lärare och läromedelsförfattare säger att de avgör intuitivt. I analysen av orden i läromedlen framkommer en liknande bild. I texterna finns ett lågt antal mellanfrekventa ord och väldigt få mellanfrekventa ord repeteras. I ordövningarna fokuseras även primärt högfrekventa ord, alltså ord som eleverna troligen redan kan. Dessa resultat indikerar att det inte finns ett tydligt ordinlärningsmål, varken i lärare och läromedelsförfattares uppfattningar eller i läromedel, vilket kan ha stor påverkan på elevernas progression.

Det tydligaste mönstret vad gäller lärarna och läromedelsförfattarnas syn på ordinläring är att det primärt ses som en oavsiktlig process. I Studie I och II är ett huvudsakligt resultat att de beskriver att ordinläring sker av sig självt, hela tiden, och att det räcker med aktiviteter med ett engagerande innehåll för att elever ska lära sig nya ord. En annan conceptualisering av ordinläring som framträdde i båda studierna var att ordinläring är kontextuell, vilket förklarar deras misstro mot gloslistan. Läromedelsanalyserna kartlade förutsättningar för ordinläring och de visar att det finns goda förutsättningar för att eleverna ska

lära sig nya ord medan de läser texter, eftersom de innehåller en lämplig andel redan kända ord. Läromedelstexterna innehåller även en del repetition men, som beskrivet ovan, de repeterade orden är primärt ord eleverna redan kan, vilket inte kan räknas som goda förutsättningar. Övningsanalysen visar att det finns gott stöd för återkallning av ord men mindre möjlighet att lära sig ord genom att använda dem, vilket visar att det främst är mekanisk inläring som uppmuntras i övningarna.

Dessa resultat belyser att oavsiktlig ordinläring är framträdande bland lärarna och läromedelsförfattarna, vilket innebär att de också ser ordinläring som en del av språkinläring som sker utan stöttning eller planering. I läromedlen återfinns visst stöd för ordinläring medan de samtidigt visar brister i andra avseenden.

## Diskussion

Resultaten från avhandlingens studier belyser huvudsakligen vokabulär i engelskklassrummet på två sätt, nämligen ordkunskapens position i engelskämnet, samt hur vokabulär hanteras i klassrummet. Resultaten behandlar således ordinlärningsstöd på en mer konceptuell nivå i relation till position och mer konkret i relation till hur vokabulär behandlas i klassrummet.

Ett primärt resultat i avhandlingen är att lärarna och läromedelsförfattarna premierar oavsiktlig ordinläring. Detta indikerar att klassrummet organiseras runt kommunikativa aktiviteter där innehåll är i fokus. Det finns en stor tilltro till att den oavsiktliga inläringen ska räcka för att elever ska nå måluppfyllelse. Vidare indikerar resultaten att lärarna är kritiska till att ge ordkunskap en framträdande plats i klassrummet och i deras undervisning, vilket indikerar att vokabulär inte har en central position i engelskämnet. Den oavsiktliga inläringen som lärare och läromedelsförfattare förlitar sig på leder till ytterst långsam ordinläring, där enbart några få ord plockas upp i timmen. I skolan där elever bara har engelsklektioner ungefär två timmar i veckan är det därför högst otroligt att enbart oavsiktlig inläring räcker för elever om de ska nå det omfattande ordförråd som krävs. Att ge vokabulär denna marginella position i engelskämnet kan följaktligen ha stor inverkan på elevers måluppfyllelse, särskilt de elever som inte möter mycket engelska på fritiden. I detta avseende kan resultaten ses som ett tecken på att skolan inte erbjuder likvärdig engelskundervisning. Förklaringar till denna position kan finnas i fritidsengelskans

framträdande plats i diskursen om engelskundervisning, samt den kommunikativa synen på språkinläring som är stark i Sverige. Det finns alltså anledning för lärare, forskare och lärarutbildning att diskutera hur vokabulär och undervisning i klassrummet relaterar till dessa kontextuella faktorer.

Avhandlingens andra huvudsakliga bidrag är att den visar hur vokabulär behandlas i klassrummet. Detta synliggörs både i hur lärare och läromedelsförfattare ser på sitt uppdrag och i läromedlens faktiska utformning. Det är anmärkningsvärt att både lärare och läromedelsförfattare uttrycker att ordinläring inte behöver planeras utan det är en process som sker av sig självt. Detta innebär således att varken ordinnehållet eller hur dessa ord planeras i klassrummet eller i läromedel. Med avseende på ordinnehållet så pekar alla fyra studier på att det inte finns någon systematik kring vilka ord som lärare fokuserar på eller vilka ord som behandlas i läromedlen. I relation till hur ordinläring behandlas genom repetition och ordövningar är resultaten både positiva och negativa med avseende på stödet för ordinläring, som nämnt ovan. Den sammantagna bilden är emellertid att det inte finns ett systematiskt förhållningssätt till vokabulär i klassrummet, vilket kan påverka elevers språkinläring och deras motivation till att lära sig engelska i klassrummet.

Skolan har avslutningsvis ansvar för alla elevers lärande. Denna avhandling visar dock att de undersökta förutsättningarna för ordinläring i klassrummet är otillräckliga för att säkerställa att alla elever får möjlighet att utvecklas i enlighet med läroplanens förväntningar. För att säkerställa en likvärdig engelskundervisning behöver vokabulär få en mer framträdande plats i engelskämnet och hanteras och planeras systematiskt i klassrummet.

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# Appendices

## Appendix A.

### *Interview protocol for Study I*

#### **Läraren:**

- Vilka ämnen undervisar du i?
- Hur länge har du jobbat som lärare?
- Vilka grupper undervisar du i engelska?

#### **Syner på ordinlärning:**

- Vad innebär det att kunna ett ord?
- Hur ser du på ordinlärning i engelskämnet?
- Hur märker man om en elev har ett gott ordförråd?
- Hur viktigt är det med ordkunskap för språkförmågan? (Varför?)
- Finns det ord/typer av ord som är speciellt viktiga att kunna? Spelar det någon roll vilka ord man lär sig? Generellt och/eller för dina elever? Årskurser?
- Vilken roll har skolan i elevernas utveckling av engelskt ordförråd? Är det annorlunda beroende på del av skolgången?
- Hur arbetar du med ordinlärning?

#### **Läromedelsanvändning:**

- Vilka läromedel använder du detta läsår?
- Hur använder du dig av läromedlen, i relation till ordinlärning?
- Hur påverkar de läromedel som du använder arbetet med ordinlärning?
- Arbetar du med ord i relation till läromedlen? I så fall, hur?
- Får eleverna hemläxa relaterat till att lära sig ord? I så fall, hur påverkar läroboken valet av ord?
- Vad tycker du att läromedlet bidrar med i ditt klassrum, i relation till ordinlärning?
- Vilka för/nackdelar kan du se med läromedlen som du använder, i relation till ordinlärning? Varför är detta en för/nackdel?
  
- Vad förväntar du dig av läroboken, i relation till ordinlärning?  
Innehållsmässigt/utformning/resultat

#### **Syner på läromedel:**

- Hur tycker du att läroboken fungerar som utvecklande av elevers ordförråd?
- Ger läroboken och tillhörande arbetsbok/webbmaterial förutsättningar för att lära sig ord (i allmänhet och/eller specifikt ord som är viktiga att kunna)?

## Appendix B.

### *Interview protocol for Study II*

#### **Läromedelsförfattaren:**

- Utbildningsbakgrund? Lärarexamen?
- Vilka läromedel har du skrivit?
- Jobbar du ensam eller i grupp?
- Hur länge har du utvecklat läromedel?

#### **Ordkunskap:**

- Vad innebär det att kunna ett ord?
- Hur ser du på ordinläring i engelskämnet?
- Finns det ord/typer av ord som är speciellt viktiga att kunna? Spelar det någon roll vilka ord man lär sig?
- Vilken roll har skolan i elevernas utveckling av engelskt ordförråd?

#### **Utformning av läromedel:**

- Berätta hur det går till när du/ni skapar ett läromedel i engelska.
- Vad är viktigt att tänka på när man utformar ett läromedel?
- Vad är ett läromedels viktiga delar? Vad bör ett läromedel innehålla?
  
- På vilka grunder avgör du/ni lärobokens innehåll för en viss årskurs?
- Hur väljer du/ni texter till läromedlet? Vad påverkar textvalet?
- Redigerar ni texterna? (Varför/varför inte?)
  
- Hur väljer du/ni ordinnehållet till läromedlet?
- Hur presenteras ordinnehållet i läromedlen? Hur har du/ni tänkt kring det?
- Hur avgör du/ni omfånget av innehåll (i termer av vokabulär) till en bok i en viss årskurs?
  
- Vilket lärande tänker du sker i arbetet med läroboken och vilka metoder används för att stötta språkinläring/ordinläring?
- Hur avgör du/ni vilka övningar som ska finnas i läroboken? Specifikt för övningar kopplat till ordinläring?
- Finns det något som begränsar dig i utformningen av läromedel?

#### **Läromedel och ordkunskap:**

- Vilken roll har läromedlen (och arbetet med dessa) i elevernas utveckling av engelskt ordförråd? Är det annorlunda beroende på del av skolgången?
- Hur tänker du att läromedlen ska användas, i relation till ordinläring?
- Hur tänker du att läromedlen ska påverka arbetet med ordinläring?
- Hur tänker du att läromedlen stöttar ordinläring?
- Vad vill du att läromedlen ska bidra med i klassrummet?

## Appendix C.

### *Consent form for the teacher interviews*

Luleå Tekniska Universitet

Institutionen för konst, kommunikation och lärande

Forskarskolan PROFS (Praktiknära Skolforskning)

*Denise Bergström, Cathrine Norberg och Marie Nordlund*

#### **Samtycke för medverkan i studie samt för lagring av intervjumaterial**

Du tillfrågas härmed om att delta i en intervju som en del i ett doktorandprojekt om läroboken och ordförrådet i högstadiets engelskklassrum. Denna intervjustudie är den första studien i projektet där lärare intervjuas om deras praktik och tankar gällande engelskt ordförråd samt lärobokens roll och plats i klassrummet. Syftet med intervjuerna är att få en förståelse för lärares arbetsätt och tankar gällande läroboken men också hur lärare ser på ordförrådets plats och roll i engelskämnet och i läroboken.

Du är anonym i din medverkan och så även din skola. Din medverkan är frivillig och du kan närsomhelst avbryta din medverkan utan att ange orsak.

Den inspelade intervjun och den transkriptionen av intervjun kommer att lagras bakom lösenordsskydd och kommer att lagras till 2026. Datan kommer vara tillgänglig för doktoranden Denise Bergström och hennes handledare Cathrine Norberg och Marie Nordlund. Datan kommer att användas i vetenskapliga artiklar samt i presentationer.

#### **Jag har läst och samtycker till medverkan samt lagring av uppgifter:**

---

namn

---

ort, datum

*Kontaktperson: Denise Bergström*

*denise.bergstrom@ltu.se*

*0920-493008*

## Appendix D.

### *Consent form for the materials developer interviews*

Luleå University of Technology

Department of Arts, Communication and Education

The Graduate School PROFS (Practice-based Educational Research)

*Denise Bergström, Cathrine Norberg och Marie Nordlund*

#### **Consent form – participation in interview study and storage of data**

You are hereby asked to participate in an interview that is a part of a PhD project concerning the EFL textbook and vocabulary development in secondary school in Sweden. This interview study is the second part of the project and it aims to gain an understanding of the materials development process and materials developers' views on vocabulary and the textbook.

You are anonymous in the study. Your participation is voluntary and you can call off your participation at any time (without explanation) by contacting Denise Bergström. The storage of the recorded interview and the transcription of the interview will be password protected. The data will be used in scientific articles and presentations.

When you take part in this interview, Luleå University of Technology (LTU) will process your personal data. Consenting to this is voluntary, but without processing your personal data, we cannot carry out this research project. You can withdraw your consent at any time, and you do not have to justify it. LTU is responsible for the processing of your personal data. The LTU data protection officer can be contacted at [dataskydd@ltu.se](mailto:dataskydd@ltu.se) or by phone, 0920-49 10 00. You will find more information on how LTU processes personal data and about your rights as a data subject at <https://www.ltu.se/about/Behandling-av-personuppgifter-GDPR?l=en>.

**I have read this form and I consent to participation in the study and the storage and processing of personal data and the interview material:**

**Signature**

---

**Name in block letters**

**Place and date**

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*Contact: Denise Bergström  
denise.bergstrom@ltu.se, 0920-493008*



## Studies included in the thesis





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Division of Education and Languages

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