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Investigating Factors that Predict and Impact Vocabulary Acquisition through Fiction Literature in the Norwegian ESL Classroom

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Supervisor: Nicole Busby
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Abstract

This thesis seeks to combine the language and literature direction in English as it investigates factors that predict vocabulary acquisition from reading fiction. An integrated and relevant look at the vast subject of English can come from combining the directions and can offer valuable insight into language acquisition and vocabulary growth.

A quantitative approach was employed in which 74 participants, 16-year-olds in first year of upper secondary school in Norway, answered a digital questionnaire including an extract of Nation and Beglar's (2007) vocabulary size test (VST) at the 4,000 – 6,000 word levels, and various questions inquiring about different factors that might affect their vocabulary acquisition. Participants were asked to read a text in which five real English words were replaced with nonwords. Nonwords are strings of letters which resemble real words but do not actually exist as words in a specific language (Meara, 2013), and are used in language acquisition studies to ensure participants have no prior knowledge of the target words (König et al., 2019). The focus of the study was to investigate how well the participants acquired the meaning of five different nonwords in an excerpt of a mid-frequency graded reader of Franz Kafka's *Metamorphosis,* followed by a twofold post-reading test, consisting of a translation test and a test called "odd one out." Both tests were tests of meaning recognition. The translation test was a multiple-choice test asking the participants what the correct Norwegian translation would be for each of the five nonwords, with three plausible alternatives for each question. The odd-one-out test asked the participants to identify whether a nonword was relevant in a string of other words, answered in "yes"/"no," and each nonword had three questions in this test.

The main objective of the study was to investigate if the participants could acquire new vocabulary from reading, and what predictors of this are. Findings include that the participants could recognize the meaning of the nonwords as seen in the scores from the post-reading tests. The study looked at how important of a factor the number of encounters participants had with the nonwords was for acquisition, in addition to existing vocabulary size. Out-of-school activities related to reading were found to be the best predictors of vocabulary size. In turn, vocabulary size as measured by the VST was a significant predictor of scores on the tests of the nonwords, which is a very interesting finding. A third approach was taken to investigate language acquisition from reading, namely participants' self-reported reading strategies in a general situation, answered before reading the *Metamorphosis* excerpt, and from the specific reading experience answered after reading. Results showed an increase in the strategies 'using context to understand the words' and 'guessing the meaning' from the specific reading experience strategy-report. Additionally, fewer participants reported 'going back and forth' in the post-reading strategy report than in the general reading strategy use, pre-reading. Analysis of this can suggest that skills in employing appropriate reading strategies are important for reading and acquiring language. The results then suggest that there are other factors than just the number of encounters a reader has with an unfamiliar word that affects vocabulary acquisition, and how it is even more complicated than what comes from this thesis. Pedagogical implications include how students can acquire words from reading fiction texts, but only to a certain extent. The results from the immediate post-reading tests after the unassisted reading task reveals a gap in which teachers can support their students' vocabulary development by employing a resource-oriented functional approach to English language teaching.

Sammendrag

Denne oppgaven kombinerer språk- og litteraturretningen i engelsk ved å undersøke hvilke faktorer som kan forutsi og påvirke ordforrådstilegnelse gjennom lesing av skjønnlitteratur. En helhetlig tilnærming og et relevant blikk på det omfattende engelskfaget kan nås ved å kombinere retningene, samt verdifull innsikt i språktilegnelse og ordforrådsutvikling.

Studien tar en kvantitativ tilnærming der 74 deltakere, 16-åringer fra førsteklasse på studiespesialiserende retning ved to ulike videregående skoler i Norge, svarte på et digitalt spørreskjema som inkluderte et utdrag av Nation og Beglars (2007) ordforrådstest (VST) på 4,000 – 6,000 ord nivå, og ulike spørsmål om faktorer som har vist seg å kunne påvirke tilegnelse av ord. Deltakerne fikk utdelt en tekst der fem ekte engelske ord var erstattet med såkalte ikke-ord, som er bokstaver satt sammen til ord som ligner virkelige ord, men som faktisk ikke eksisterer som ord i et språk (Meara, 2013). Ikke-ord brukes i språktilegnelsesstudier for nettopp å sikre at deltakere ikke har forkunnskaper om ord som testes (König et al., 2019). Fokus for studien var å undersøke hvor godt deltakerne tilegnet seg betydningen av fem forskjellige ikke-ord i et utdrag av en tilpasset tekst (graded reader) av Franz Kafkas *Metamorphosis*, etterfulgt av en todelt test etter leseoppgaven, bestående av en oversettelsestest og en test kalt "odd one out". Begge testene var tester for gjenkjenning av betydning. Oversettelsestesten var en flervalgstest som spurte deltakerne hva den korrekte norske oversettelsen ville vært for hvert av de fem ikke-ordene, med tre plausible alternativer, i tillegg til ikke-ordet, i hvert spørsmål. Odd-one-out-testen ba deltakerne identifisere om et ikke-ord var relevant i en rekke andre ord, besvart med "ja"/"nei", og hvert ikke-ord hadde tre spørsmål i denne testen.

Hovedformålet med studien var å undersøke om deltakerne kunne tilegne seg nye ord fra lesing. Funnene inkluderer at deltakerne kunne gjenkjenne betydningen av ikke-ordene i teksten, sett i resultatene fra testene etter leseoppgaven. Studien undersøkte hvor viktig antall møter med nye ord deltakerne har er for tilegnelse av disse ordene, i tillegg eksisterende ordforråd. Resultatene viser at ekstramurale aktiviteter som lesing av skjønnlitteratur og lesing på nett kunne forutsi størrelse på ordforråd. I sin tur var ordforrådsstørrelse målt i VST en signifikant variabel for poengsum på testene av ikke-ordene, som er et veldig interessant funn. En tredje tilnærming ble tatt for å undersøke språktilegnelse fra lesing, nemlig deltakernes selvrapporterte lesestrategier i en generell situasjon, besvart før lesing av *Metamorphosis*-utdraget, og fra den spesifikke leseopplevelsen besvart etter lesing. Resultatene viste en økning i strategiene «bruke kontekst for å forstå ordene» og «gjette betydningen» fra den spesifikke leseopplevelsesstrategi-rapporten. I tillegg rapporterte færre deltakere å «gå frem og tilbake» i strategirapporten etter lesing enn i den generelle lesestrategibruken før lesing. Analyse av dette kan tyde på at ferdigheter i å ta i bruk hensiktsmessige lesestrategier er viktig for lesing og tilegnelse av språk. Resultatene tyder på at det er andre faktorer enn bare antall møter en leser har med et nytt ord som påvirker ordforrådstilegnelsen, og at det er enda mer komplisert enn det som kommer frem i denne oppgaven. Pedagogiske implikasjoner inkluderer hvordan elever kan tilegne seg ord på egen hånd, men bare til en viss grad. Resultatene fra testene etter egenlesingsoppgaven avdekker et område i tilegnelsesprosessen der lærere kan støtte elevenes ordforrådsutvikling ved å bruke en ressursorientert funksjonell tilnærming til engelskundervisning.

Acknowledgements

Table of contents

Table of abbreviations

In this thesis I will make use of many abbreviations. For the reader's ease, I offer a table of the most used ones.

Abbreviation	Meaning
L1	First language
L2	Second language
SLA	Second language acquisition
ESL	English as a second language
EFL	English as a foreign language
ELT	English language teaching
VST	Vocabulary size test
EE	Extramural English (anything outside the institution (school))
ER	Extensive reading
YAF	Young Adult Fiction
LK20	Knowledge Promotion Reform ("Kunnskapsløftet") 2020
vg1	First year of upper secondary school in Norway

1. Introduction

This chapter introduces the thesis' background, including my personal motivation and interests in writing it, in addition to a brief introduction to English in Norway. The research questions for the study and the thesis structure are also presented.

1.1 Personal motivation and interests

Over the last five years I have studied towards becoming a teacher, with English as my main subject. Completing a wide range of courses has given me valuable insight in various fields relating to English as a school subject, as a language profession, and as a literary field. From specific courses on language acquisition combined with extensive periods of teaching practice and experiences with literature-based vocabulary teaching, I got an idea to combine the different directions. Despite my specialization being English literature, officially, it is evident that this thesis is rather language oriented. However, by combining the literature and the language direction, I saw myself being able to get a more integrated and relevant look at the vast subject of English. Experiences from teaching practice periods made me curious about how we can include fiction literature in the classroom, and what gains the students can have from it. When I started developing ideas for this thesis, I knew I wanted to conduct some sort of research, and by looking at my own notes and previous course content from my education, I got an idea to investigate how well students can acquire unfamiliar words through reading fiction, with no other support than the context each word appears in. In short, then, the aim of this thesis is to investigate how fiction can be useful in the Norwegian English as a second language (ESL) classroom. To achieve this, I have familiarized myself with an extensive amount of previous research with different points of entry in the field of language acquisition, developed my own focus and study design for a thesis that seeks to combine different directions of English and pedagogy. The focus has resulted in the thesis seeking answers to the following research questions (RQs):

RQ1 How do the number of encounters predict acquisition of new vocabulary?

RQ2 Which extramural activities are predictors of high scores on a vocabulary size test?

RQ3 What reading strategies do students report using for unfamiliar vocabulary, pre- and post-reading of a mid-frequency graded reader?

1.2 English in Norway

English is established as a second language (L2) in Norway, after, perhaps mistakenly, being labeled as a foreign language for a long time (Brevik, 2015; Rindal, 2013). There are many reasons why English is generally accepted as the Norwegian L2. For one, English is taught in schools from year one all through year ten of the compulsory education Norwegian students undergo. English is also taught in the first year of secondary school (vg1) in both general and vocational studies, and students in general studies can choose different English program subjects in year 12 and 13 as well, which can constitute a high-level English proficiency. Secondly, English surrounds youths and the adult and elder population daily, as popular media such as TV, movies, music, in addition to social media feature a great amount of English content. In short, the contact Norwegians have with English is high, both from explicit teaching and extramural English

(EE[1]) exposure. Thirdly, English is often used favorably as the working language in the academia, and Norway as a country has close cultural and economic ties to the outside world as well, making English a lingua franca for education and international relations. Based on this, the Norwegian English proficiency is generally so high, across age-groups and other divisions, that it is safe to say it is an L2.

It is evident that English language learning for Norwegians exceeds formal education. From this, then, the question arises on the effect of extramural activities on the language acquisition itself. Studies have proven that extramural English correlate with L2 learners' vocabulary sizes in Norway (Busby, 2021), but studies on first-year students in upper secondary are limited, which is what this thesis seeks to contribute with. Closely related to the question regarding impact of EE in acquisition is the number of exposures needed to acquire vocabulary. This is also of interest in this thesis, as this is still a topic of interest in the language acquisition field. The literature review following this chapter will show how words can be conceptualized and systematized, describe word frequency levels, vocabulary acquisition, and the effects of extramural English, in order to approach the core of this thesis, relating it to reading fiction in the classroom as an opportunity for L2 acquisition.

1.3 Thesis structure
Following this introductory chapter, the thesis includes five more chapters. Chapter 2 consists of a literature review to show the theoretical and conceptual framing I have employed in this thesis. I will combine theory on second language acquisition (SLA) and English language teaching (ELT) in addition to descriptions of some key studies to contextualize and clarify the thesis' focus area. In Chapter 3, I present the methodology employed in the study, along with a presentation of my research design, where I also argue for the appropriateness of the quantitative methods approach for this thesis, how it will answer the RQs, and discuss the methodological choices made in the development of the study design. I will also offer comments on research credibility, validity, and ethical considerations. Chapter 4 reveals the results from the data collection. In Chapter 5, I analyze and discuss findings from the study and relate them to the overarching aim of this thesis, before I in Chapter 6 offer concluding remarks and implications for the current thesis and suggestions for further research.

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[1] Extramural English is in Sundqvist (2009) described as "linguistic activities that learners engage in outside the classroom in their spare time".

2. Literature review

As outlined, the aim of the thesis is to get insight into what factors predict vocabulary acquisition, in order to say something about how fiction can be useful in the Norwegian ESL classroom. This chapter provides an overview of some of the historical and current interests in the language acquisition field, including measuring vocabulary knowledge and factors that predict vocabulary acquisition, in addition to ESL classroom literature.

2.1 What are words, and how do we acquire them?

To investigate language acquisition, we need to know what a word is. Milton (2009, p. 7) explains that the use of the word 'word' when talking about vocabulary knowledge is mostly for ease and convenience, as this concept covers some very specialist definitions, including *tokens*[2] and *word families*[3]. Seashore and Eckerson (1940, as cited in Milton, 2009, p. 7), suggested that native speakers of English know about 200,000 words, but this number was based on words found in dictionaries, where every different form of a word was counted as a different word. Milton further explains that this meant that words like *know, knows* and *knowing* were all treated as different words, thus counted separately. Attempts to systematize word counts and frequency in later times, then, acknowledged common inflections and derived forms of words as single word families, which is widely used as a unit of counting in language acquisition when discussing acquisition and proficiency (Nation, 2021).

2.1.1 Word frequency

A widely debated and researched topic is how many times a new word must be encountered before it is possible to acquire it, suggested by some that for reading, an exposure of twelve and above is a good predictor of acquisition (Nation, 2006), while this is also challenged by others suggesting that the number could be closer to ten (Pellicer-Sanchez & Schmitt, 2010). There is also reason to believe that different aspects of vocabulary knowledge might need a different number of encounters (see for example Nation, 2013). Moreover, Peters and Webb (2018) suggested that frequency of occurrence might not be the most important predictor for vocabulary acquisition. Regardless, the exact number of encounters needed for acquisition remains unclear.

Uchihara et al. (2019) did a meta-analysis of several primary studies reporting correlation coefficients between the number of encounters and vocabulary learning. Analyses revealed that various learner variables could explain the variability in the size of repetition effects across the studies they investigated. These variables included age and previous vocabulary knowledge. In addition, treatment variables (spaced learning, visual support, engagement, range in number of encounters), and methodological differences (nonword use, forewarning of an upcoming comprehension test, vocabulary test format) were also indicators of different findings across the studies. Uchihara et al. (2019) support Nation and Beglar's claim that frequency of occurrence "is only one factor, although a very important one, affecting order of acquisition" (2007, p. 11).

2.1.2 Lexical coverage

A 98% knowledge of the words in any given text is needed for readers to have an 'adequate comprehension' of said text, Nation claims (2006). Others suggest that 95% is the 'minimum' coverage needed, but also agree that 98% is *optimal* (Laufer & Ravenhorst-Kalovski, cited in McQuillan, 2016, emphasis mine). "When a learner has 98% coverage of a text, adequate unassisted comprehension is possible (Hu & Nation,

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[2] Unit of counting if we are interested in every word form in a text (Nation, 2013, p. 9).
[3] A headword, its inflected forms and its closely related derived forms (Nation, 2013, p. 11).

2000, as cited in Nation & Beglar 2007, p. 9). This relates to how proficiency and ability to acquire language from reading connects to each other (Laufer & Cobb, 2020).

2.1.3 Nonwords

Testing readers' abilities to acquire real words from reading has been done many times before (Laufer & Aviad-Levitzky, 2017; Meganathan et al., 2019; Pellicer-Sanchez & Schmitt, 2010; Saragi et al., 1978), but some studies also use nonwords, which are also called novel words, imaginary words, pseudo-words and nonsense words (Meara, 2013). Nonwords are strings of letters which resemble real words but do not actually exist as words in a specific language (Meara, 2013). A rule when using nonwords in research is that the nonwords must be 'legal' in the target language in terms of spelling and orthography, but not exist in the language at all (Meara, 2013). Wang et al. (2020) tested acquisition from reading when they investigated poor- and normal-performers' processing time in relation to decoding development of both real words and nonwords. A key argument for using nonwords when investigating abilities to acquire language is that the researcher can ensure none of the test subjects have prior knowledge of the target words beforehand (König et al., 2019). Because the words are made up, there is no way the participants have encountered the words before and thus ensuring 'equal playing ground' for the participants and comparable data for vocabulary acquisition.

2.1.4 Measuring vocabulary knowledge

Milton states that "[m]easuring language is not as easy as measuring distance or weight. Language knowledge is not a directly accessible quality and we rely on learners to display their knowledge in some way so it can be measured" (2009, p. 6). Additionally, knowledge of a word entails more than knowledge *of* it. A common convention is to divide word knowledge into receptive and productive knowledge, and Milton (2009) explains that "it is generally thought that a learner's receptive knowledge, the words that are recognised when heard or read, is greater than a learner's productive knowledge, the words that can be called to mind and used in speech or writing" (p. 13). In a similar discussion, Nation (2013, p. 50) notes that it "seems that receptive learning and use is easier than productive learning and use", but the reasons for this remain unclear.

In 2007, Nation and Beglar introduced their vocabulary size test (VST). The test sampled words from the first 14,000 word families in English and resulted in a test with 140 questions; ten questions per level (first 1,000 level, second 1,000 level and so on), where each question represented 100 words in the 1,000 level. As the order of the word family levels increases in the test, so does the 'difficulty' or, simply, the frequency level in the English language. Word families are useful when developing tests to measure vocabulary sizes, Milton argues (2009, p. 9), as developers can choose from a few thousand word families, instead of hundreds of thousands or even millions of words from a dictionary, echoed in Nation and Beglar's reasoning for the development of the VST. The VST measures receptive vocabulary size, and the greatest value of the test, the developers claimed, is being able to measure learners' progress in vocabulary acquisition, which is a complex process itself. External factors and their effect on acquisition might never have one clear answer, although attempts are made by investigating them in parts and turns.

2.1.5 Impact of extramural English on vocabulary acquisition

As outlined in the introduction, Norwegians encounter English in various ways. 16-year-olds are arguably part of the population which uses and encounters English the most, as their presence on social media and other activity-based platforms is widespread.

Acquiring vocabulary from such activities is often called incidental learning, which refers to the process of picking up meaning of words for example through communicative activities where word learning is not intended (Nation, 2013, pp. 92-3). For example, Milton (2009, p. 9) explains that time and *experience* eventually will teach a child that the plural of foot is irregular, making it feet and not *foots, and that the things constituting experience can be many things, for example repeated exposure, causing incidental acquisition.

A key interest in research regarding incidental acquisition is looking at which extramural English activities predict a higher English vocabulary knowledge. For example, Sylvén and Sundqvist (2012) showed how L2 English proficiency in young L2 English learners of ages 11-12 in Sweden correlates with the frequency of gaming. Findings suggested that playing digital games at an early age can be important for L2 acquisition. Peters and Webb (2018) investigated incidental learning from various activities. The findings showed that watching TV resulted in vocabulary learning at the level of meaning recall and meaning recognition. The research also revealed that learning was affected by frequency of occurrence, prior vocabulary knowledge, and cognateness. In addition, Busby (2021) found that vocabulary scores correlated with extramural input for English L2 learners on university level in Norway. Puimège and Peters (2019) investigated which learner-related and word-related variables affected young learners' vocabulary knowledge at the level of meaning recognition and meaning recall. Data was collected from children between 10-12 years old with a questionnaire regarding the participants' EE, a picture VST, and a Dutch vocabulary test. Findings revealed that there was a positive relationship between EE and vocabulary knowledge.

Tam and Reynolds (2022) also investigated correlation between EE and VST scores. Their focus was first language (L1) Cantonese speakers with L2 English, and they used Nation and Beglar's (2007) VST in its entirety, in addition to a questionnaire inquiring about learning experiences and participation in extramural activities. Findings included small correlations between vocabulary size and book reading, among others. In addition, scores relating to book reading seemed to explain variance in participants' vocabulary the most, after language of instruction in secondary school was eliminated. The results from these studies are interesting as correlation between EE and vocabulary knowledge is proven significant at various ages for English L2 learners, ranging from 10-year-olds to university students.

Lastly, in a setting where students had extensive EE encounters, Henry et al. (2018) identified and evaluated strategies focusing on activity design and content in classroom activities and found that teachers were effective in generating motivation for said students by including authentic materials, defined as "cultural artefacts produced for a purpose other than teaching" (Gilmore, 2007; Tomlinson, 2012, as cited in Henry et al., 2018). In relation to the previously mentioned studies, one take-away from Henry et al. (2018) is that the prominence of activities that enable students to work with material they engage with in their spare-time can foster motivation for learning and assist them in vocabulary growth.[4]

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[4] With regards to what is meant by vocabulary growth, there are several ways to look at it. Schmitt (2014) notes that when discussing vocabulary, a distinction is often made between size of vocabulary (number of known words) and depth of knowledge (how well those words are known). For this thesis, then, we are primarily interested in how vocabulary *size* can increase from reading fiction in the classroom, but I acknowledge that a focus on depth is also needed for real-life ELT in the ESL classroom. Because of spatial and temporal limitations for the thesis, this will not be discussed further in detail.

2.2 Vocabulary acquisition from reading

One of the earliest studies done on incidental learning through reading is "Vocabulary learning and reading" (Saragi et al., 1987), often referred to as 'the Clockwork Orange study', where participants were asked to read the novel *A Clockwork Orange* by Antony Burgess. The novel is filled with Russian slang words, and the researchers set out to investigate the participants' acquisition of the slang words just from reading. The focus on acquisition of certain target words was not revealed to the participants prior to testing, as this could affect the focus and disturb the intended extensive reading (ER) experience and incidental acquisition. Findings included that repetition of the target words (Russian slang) throughout the novel positively impacted acquisition, but that other features also affected the process, such as context of the target words. They concluded that from their study, it could be suggested that the number of encounters a reader needs with a word before it is learned is somewhere around ten. Another important finding from their study includes how "Extensive reading, particularly of simplified readers, is often recommended as a good way of increasing vocabulary" (Saragi et al., 1987, p. 73), which will be further discussed later.

The Clockwork Orange study's impact for the language acquisition field was great. Since the study came out, a number of other studies have taken the same approach in asking how well readers can acquire language through reading (Hagley, 2017), and investigating further what factors can affect this process. For example, in a replication study by Horst et al. (1998), findings suggested that subjects with larger L2 vocabulary sizes had greater incidental word learning gains, drawing on how existing vocabulary knowledge influences the acquisition of new words. Horst et al. (1998) also asked if extensive reading could be more effective than direct vocabulary instruction. Results showed more incidental learning and a higher pick-up rate than previous studies, as their study involved longer text material than earlier studies on the same topic. The authors noted that "With fewer than eight repetitions, growth is much less predictable, and the role of other factors becomes more apparent" (Horst et al., 1998, p. 215). In addition, Pigada and Schmitt (2006) found that from extensive reading over a month, knowledge of 65% of the target words was enhanced in some way - including spelling and meaning of the words.

Another study investigating incidental learning from reading in-class is Day et al. (1991), describing that the motivation for their study was to contribute with empirical evidence of how children can learn new vocabulary incidentally from listening and reading situations. Their research entailed having EFL (English as a foreign language) Japanese high school and university students engage in sustained silent reading of an adapted fiction text, followed by a post-reading test. Based on their findings, the authors claim that foreign language students can learn target vocabulary through reading (Day et al., 1991, p. 546), and that this supports an inclusion of pleasure reading in a foreign language curriculum, as reading for entertainment in the classroom can enhance vocabulary growth.

Pellicer-Sanchez and Schmitt (2010) explored the degree to which relatively advanced L2 readers can acquire spelling, word class, meaning recognition, and meaning recall from target words in the novel *Things Fall Apart*. Findings included that after more than ten exposures to the target words, their meaning could be recognized for 84% and spelling recognized for 76% of the words, while the meaning and word class was recalled for 55% and 63%, respectively. In short, the study resulted in findings confirming readers' abilities to acquire language from reading an authentic fiction text.

2.3 Reading strategies

Nation (2013) bases many discussions regarding SLA on the idea that a well-balanced language course consists of four main strands: meaning-focused input, meaning-focused output, language-focused learning, and fluency development. The first strand is concerned with how learners should "have the opportunity to learn new language items through listening and reading activities where the main focus of attention is on the information in what they are listening to or reading" (Nation, 2013, p. 2). Moreover, it is evident that learning from meaning-focused input best occurs when there is a 98% coverage of the text in question, like mentioned earlier. Conversely, we can then agree that learning from the meaning-focused input is more difficult if there are lots of unknown words for the reader, thus the learning strand does not function as intended. In relation to this, researchers have investigated the importance and impact of learning behaviors and strategy use for vocabulary acquisition for a long time (Deng & Trainin, 2020; Li, 2018; Nation, 2013; Politzer & McGroarty, 1985; Saito, 2020). The interest in learning more about the importance of strategy use in second language learning grew from an interest in learners' active role in the learning process (Schmitt, 1997, cited in Nation, 2013, p. 326). In addition, Nation notes that learners not only need to know about different (reading) strategies, they also "need to have skill in using them" (2013, p. 326). This tells us that learning about which strategies readers use may also provide insight into skills relating to applying appropriate reading strategies to different situations.

Readers' strategies for encountering unfamiliar vocabulary have been connected to vocabulary acquisition and reading proficiency (Deng & Trainin, 2020; Nation, 2013). Saito (2020) investigated the correlation between adult learners' strategy use in foreign language learning and learners' sense of self-efficacy, self-regulated learning, and language proficiency. He found that possession of a high self-efficacy profile and self-regulatedness related to both greater use of language learning strategies and a higher level of language proficiency (2020, p. 166-7). His findings offer valuable insight into the learner's role and learner-related variables in language acquisition, which in turn can help answer the recurring questions of how we can acquire language best or most efficiently.

Also interested in strategy use, Li (2018) investigated learning preferences and strategies for Chinese ESL students in North America with focus on interaction between L2 English learning methods adopted from previous language experience and ESL instruction. Li employed a methodology which included qualitative and quantitative parts, as she both interviewed participants in the study, and had them answer a questionnaire relating to strategy use. Findings from this study suggested that ESL classrooms can integrate more explicit teaching and learning strategies to help students acquire vocabulary more effectively (also echoed in Ramalingam et al. 2022). This study offers insight into ESL instruction, suggesting a resource-oriented functional approach to teaching and learning ESL.

One of many reading strategies readers can use when they encounter new vocabulary is guessing from context. Using context involves drawing on background knowledge and linguistic cues in order to understand new words (Nation, 2013; p. 369). Variables affecting the effectiveness of this strategy include the number of occurrences, proximity of occurrence, variability of contexts, the density of unknown words in a text, and the importance of the unknown word in order to be able to understand the text itself (Nation, 2013, p. 363). Although numerous strategies in SLA have been researched and discussed, there is still no clear consensus about which strategy is the best. Politzer and

McGroarthy (1985) investigated different language learning behaviors, including reading strategies, and concluded that one should be careful in favoring certain language learning behaviors. Seen in relation to Nation (2013), then, this tells us that learners can benefit from being familiar with a range of strategies, and through practice learn *when* to apply *which ones*.

2.4 Why fiction is relevant for the ESL classroom

There are several reasons for including fiction on the ESL syllabus. Firstly, researchers agree that fiction can provide students with an authentic approach to the English language (Al-Alami, 2021; Arboleda-Arboleda & Castro-Garcés, 2019; Mason & Giovanelli, 2017; Sauro & Sundmark, 2016). The authenticity in fiction can support students' understanding of how English is used in real-life-like situations, providing English in context. Moreover, Arboleda-Arboleda and Castro-Garcés (2019, p. 104) claim that fiction can be used as a tool to build linguistic and cultural competence. In this way, fiction can expose students to language and dialect variations of various regions, both globally and regionally, and function as a window into cultural values, norms, and practices.

Secondly, researchers argue that fiction can promote cultural awareness and critical thinking (Al-Alami, 2021; Bland & Strotmann, 2014), both of which are integral parts of the core curriculum in Norway (The Norwegian Directorate for Education and Training [UDIR], 2017, pp. 5-7). Investigating how teachers made use of the *Hunger Games* trilogy by Suzanne Collins, Bland and Strotmann (2014) found that the topic 'dystopian futures' and other relevant themes can be discussed on a general and specific level with such literature as point of departure to foster engagement in the classroom. Moreover, Al-Alami (2021) suggests that the age-appropriate language often found in young-adult fiction (YAF), is helpful to meet the students where they are, linguistically, and to help them acquire language in a meaningful way.

Thirdly, research shows that fiction can be more engaging for students than non-fiction, as it can offer a range of genres and stories that capture students' imagination and interest (Violetta-Irene, 2015). Closely tied to this argument is that having students engage with fiction in-class can foster motivation to read more outside of class as well (McQuillan, 2016; Ramonda, 2020). Key arguments include that students who are inspired to read more in their spare time can enhance their chances of acquiring a wider vocabulary on their own from incidental learning. However, despite the chances of engagement boosts in-class, and the promotion of reader's joy outside of the classroom, the use of "extensive" reading programs in ELT is widely debated. Firstly, "extensive" is placed in quotation marks to demonstrate that it is not 'true' extensive reading by definition if it is an assigned task in a teaching situation. The concept of assigned ER tasks is problematized in Ramonda (2020), as he points to some of the main principles of ER: Reading self-chosen material and on your own schedule, which complicates out-of-class reading with in-class content. Still, there are ways around this, for example by having students choose between a selection of fiction literature the teacher provides for a sustained silent reading in-class, or that students are to read their chosen material within a given deadline. Adding to this, Ramonda (2020) suggests that graded readers can tie in book content with classroom activities. Graded readers are existing fictional texts adapted in word-frequency to fit a specific target audience (McQuillan, 2016), for example ESL students at different proficiency levels. Even though a classroom context can never provide an authentic ER situation, research shows that including an extensive

reading component in a language course can have very positive effects on *vocabulary growth* (Elley & Mangubhai, 1981, cited in Nation, 2011, p. 532, emphasis mine).

Schmitt (2008) discusses instructed second language vocabulary learning and argues that the learning process needs to be facilitated by mainly four vocabulary learning partners: students, teachers, materials writers, and researchers. He emphasizes that a good vocabulary learning program, along with other important factors, includes a component based around maximizing exposure and incidental learning. He states that "the overriding principle for maximizing vocabulary learning is to increase the amount of engagement learners have with lexical items" (Schmitt, 2008). This emphasizes the importance of different teaching materials used in a classroom, which can include fictional texts, in combination with its possible impact for vocabulary growth.

2.5 The Norwegian National Core Curriculum and English curriculum in vg1 general studies

Reading is one of five basic skills defined in the core curriculum for all primary and secondary education in Norway, the other four being writing, numeracy, oral skills, and digital skills. The skills are "important for developing identity and social relations of each pupil, and for the ability to participate in education, work and societal life" (UDIR, 2017, p. 13). While these skills are incorporated in all subjects, the English curriculum plays a unique role in developing students' reading skills. It is emphasized that reading in the English subject "means understanding [...] the content of various types of texts" (UDIR, 2019, p. 4). With regards to what kinds of texts the students are to grapple with throughout their education, the curriculum mentions various kinds, and underlines that the concept of text is used in a broad sense: "spoken and written, printed and digital, graphic and artistic, formal and informal, fictional and factual, contemporary and historical" (UDIR, 2019, p. 3).

Moreover, the importance of vocabulary acquisition in the English curriculum is highlighted by UDIR, which notes that learning vocabulary "gives the pupils choices and possibilities in their communication and interaction" (UDIR, 2019, p. 2). UDIR's interest in exposing students to different kinds of text and the value they place on learning vocabulary lays ground for the pedagogical approach to reading as a means of vocabulary growth, and the idea of using literature for language learning echoes in the previously mentioned studies (Arboleda-Arboleda and Castro-Garcés, 2019; Bland & Strotmann, 2014).

While it is evident that English language learning through various means is of great interest in the core curriculum, this thesis seeks to investigate fiction's role in upper secondary school. It is therefore interesting to look at a few selected central competence aims that reflect this focus. After the Knowledge Promotion Reform in 2020 (LK20), the English subject curriculum for vg1 students in general studies states that:

> The pupil is expected to be able to:
>
> - use appropriate strategies for language learning, text creation and communication
> - read, analyse and interpret fictional texts in English
>
> (UDIR, 2019, p. 12).

These competence aims reflect the core curriculum's goals in terms of encounters with various kinds of texts, including fictional texts, the emphasis on language learning, and a clear focus on strategy use.

Bland and Strotman (2014) examined the *Hunger Games* trilogy for classroom use, investigating how YAF can motivate students to improve their language and literacy proficiency by extensive reading. They argued that, based on the content in the specific novels, implementation of these in the ESL and EFL classroom can provide meaningful 'booktalk' in the classroom and to trigger engaged debate. Although their research is on specific literary works, and their discussions revolve around the potential within the novels, their encouragement of fiction in the classroom as a means of creative language activity builds on some of the same arguments for including fiction on the syllabus for the ESL classroom.

Also interested in creative alternatives on the syllabus, Gamage (2019) employed a quantitative and qualitative approach to investigate ESL students' performance and perceptions towards assigned tasks related to cartoons as authentic, supplementary teaching tools. His focus was on the process of speaking and not reading, but his findings suggest that the use of fiction texts in-class can have positive consequences, as the observations he made during his research of the teaching was interpreted as an "enjoyable, stimulating, and memorable experience" (Gamage, 2019). This adds to the arguments of fiction as opportunities to learn English from context, and how alternative material can be engaging and motivating.

Mason and Giovanelli (2017) examined the practice of studying texts in secondary school English lessons and the kind of reading experience which can come from that. They discuss how discourse about a text can potentially influence how the students read and engage with the particular text, and how drawing students' attention to certain elements of a text might downplay other elements, which might be unfortunate. They also introduce and problematize points of agency on the syllabus and how pedagogical tasks can influence the authentic reading experiences for students (p. 327). Their article is important because it nuances the perceived purposes of including fiction literature exploring the limitations to this.

Also interested in the curriculum and syllabus of the English subject are Aashamar et al. (2021) as they investigated the actual use of texts in lower secondary classrooms. Findings include that teachers seem to rely more and more on their self-chosen texts rather than any provided textbook for their subjects. The authors suggest that reasons for this include a great increase in the accessibility of alternative teaching materials, and that the discontinuation of the textbook approval system in Norway emphasized that it was not the textbook who should rule the teaching, but the teachers' own judgment of text material, for instance. They conclude that the teacher emerges as an autonomous designer of hybrid practice, including both printed and digital material for tasks relating to reading of factual and fictional texts, among others. This article tells us that there is a growing interest in and awareness of the material we ask students to engage with, and that this comes with responsibility and great opportunities.

Related to being the designer of your own syllabus for the ESL classroom, this thesis indirectly also asks about the instructor's role in how fiction can be useful in the classroom. As we have seen, the freedom to pick and choose from different teaching materials for your students comes with a responsibility to include tasks and readings that cover important areas in a student's language learning process (Schmitt, 2008; Nation,

2011, 2013). Among other things, Karim et al. (2020) investigated teaching methods before and after implementation of TESOL (Teaching English to Speakers of Other Languages) programs, where they saw that methodologies and teaching material resources underwent important changes, resulting in a more diverse syllabus after the program. Al-Mahrooqi and Denman (2022) discussed individual and contextual factors' impact on language learning and how these might challenge learner and instructor expectations of what an effective and supportive classroom is. These articles inform the decision on including this perspective, even indirectly, as it is evident that the teacher's role is very much related to the success of an ELT program.

The literature review has worked to contextualize and justify the current thesis' focus by offering a general to gradually more specific description of historical and current issues within language acquisition research. This chapter has shown how words can be conceptualized and systematized, how vocabulary knowledge can be measured, focus and research in the field relating to extramural English, incidental learning, and vocabulary acquisition from reading, in addition to clear connections to the Norwegian National Curriculum and specific competence aims for vg1 students in general studies. The aim of the study for this thesis is to investigate factors that predict vocabulary acquisition, and the methodology used for conducting the research for this thesis follows this chapter.

3. The current study

This study used a quantitative method to investigate different factors affecting vocabulary acquisition. The study employed a twofold primary method for data collection which included an experiment and a survey. A quantitative approach was chosen for the current study for multiple reasons. Firstly, it allows for collection of a larger sample size and a wider data set in a shorter amount of time than that of a qualitative approach. Secondly, quantitative methods are better suited for analyzing numerical data, such as test scores, which were used to measure acquisition rates of unfamiliar words in this study. Thirdly, a quantitative approach can support the wish to draw generalizable conclusions based on the data collected and analyzed. Finally, this approach is commonly used in language acquisition studies that prioritize countable data over individual opinions and experiences.

3.1 Research questions

From the overarching aim of this thesis, which is to get insight into how fiction can be useful in the Norwegian ESL classroom, I chose to do a study with different approaches that can inform this inquiry. The study's participants were students in their first year of general studies in upper secondary in Norway, and I wanted to see if and how their engagement with English in their spare time impacts their vocabulary knowledge in English, how the number of encounters with unfamiliar vocabulary predict acquisition of said vocabulary, and what strategies they report using in general and specific reading situations. To do all this, the study for the current thesis will work from the following research questions:

RQ1 How do the number of encounters predict acquisition of new vocabulary?

RQ2 Which extramural activities are predictors of high scores on a vocabulary size test?

RQ3 What reading strategies do students report using for unfamiliar vocabulary, pre- and post-reading of a mid-frequency graded reader?

RQ1 is interested in learning how much the number of encounters with the nonwords predict acquisition of said nonwords. "New vocabulary" refers to words or phrases that are unfamiliar to the participants, which is the element of nonwords in the study for this thesis, while "acquisition" refers to the process of the participants 'learning' the meaning of said nonwords. A post-reading test was included to measure the students' acquisition of the target nonwords in scores on a group level, which was inspired by several previous research papers, like Pellicer-Sanchez and Schmitt (2010, 2012), Peters and Webb (2018), Meganathan et al. (2019) and Uchihara et al. (2019). RQ1 is important because it can provide even further suggestions to how important the number of encounters one needs to acquire a word and shed light on the effectiveness of other contextual clues in vocabulary acquisition.

For RQ2 we are interested in learning about how extramural activities predict scores on the VST from Nation and Beglar (2007). The scores predict the test subject's lexical knowledge (Nation & Beglar, 2007), and was included in the study for this thesis for two reasons: 1) to gain knowledge about the participants' proficiency in English, and 2) to ensure that the text in the study was not too difficult for the participants. The content of RQ2 is relevant because it can help identify the extramural activities in which ESL

learners can engage with to gain a wider vocabulary - which in turn can provide them with better chances of acquiring language in a school context. Essentially, we are interested in seeing if a higher level of engagement with English in the students' spare time is a predictor of higher scores in the VST than for those with a lower level of engagement.

For RQ3, we are interested in learning what kind of reading strategies Norwegian 16-year-olds apply when they read different texts, including specifically a mid-frequency graded reader. The participants were asked to rate their own usage of five different reading strategies which each inquired about what they do in a general reading situation, before they were handed a mid-frequency graded reader. A post-reading strategy report was also included, inquiring about the specific reading situation of the study. RQ3 is relevant to the thesis' aim because it can help identify which reading strategies Norwegian 16-year-olds use when reading texts, thus investigating the role of different factors in vocabulary acquisition, which can be useful insight for ESL teachers.

3.2 Participants

This study used judgment sampling to recruit participants from two upper secondary schools in Norway. A 'the more the merrier' principle was established in looking for participants, and three classes were invited to join the research. Data collection took place during the fall semester of 2022, from mid-October to the end of November. All participants were given the same questionnaire. A control group with different treatment, such as not reading the text for the study, was not included due to concerns that these participants would not be able to do anything else but guess the words in the tests, not having the prerequisites to answer them at all. In total, 74 students in first year of upper secondary school participated in the study. The formal criteria of participation in the study were 1) birth year 2006 and 2) not having English as a first language. After removal of the datasets that did not comply with the formal requirements, the research consists of data from 72 participants, where the gender distribution was as follows: 44 female students, 27 male students, and 1 other/prefer not to say.

3.3 Instrument

This section describes the methodology employed for this thesis. Details of the data gathering process are described, while limitations of this approach and the study are discussed in Chapter 6.

3.3.1 Reading material

Previous studies have used both unedited and adapted texts. In the current study, a mid-frequency graded reader was chosen due to the practicalities from its accessibility and it already being adapted to fit the chosen age group of English learners. A 6,000-word level adapted version (Nation, n.d.) of Franz Kafka's *Metamorphosis* was chosen for the study. A mid-frequency graded reader is an adaptation of text that meets the 98% vocabulary coverage criterion - in addition to being at lower vocabulary levels than the texts were originally written (McQuillan, 2016). The word level of the mid-frequency graded reader used in this study was 6,000, meaning the whole adapted text has a 98% coverage with words from 6,000 English word families. The excerpt used in the study starts off at the beginning of the novel and ends appropriately in terms of the story's continuity. The text the participants were asked to read was 3924 words, or *tokens*, cf. Chapter 2.

3.3.2 Text design

The text design was intended to mimic a little book. The layout of the text was put together in Microsoft Word and had a landscape orientation, two columns per page, and two staples in the middle to create a spine-like back. The front page featured the title of the novel and simple instructions for conducting the reading part of the study. A study comparing the use of printed graded readers (PGR) and digital graded readers (DGR) in relation to number of words read and how each format influence learner attitudes towards extensive reading found that both PGR and DGR were received favorably by students, and that one can successfully utilize either system based on, for example, needs (Cheetham et al., 2022). Based on this and discussions with the teachers of the participants in this study, the participants read the text on paper to simulate a real in-class reading task. No changes were made to the text, other than the substitution with nonwords in the five target words (plus their related words with suffixes). Therefore, English dialect differences such as "favor/favour" were not changed. Furthermore, no editorial changes like comma placement were made. The line breaks from the source text were also kept.

3.3.3 Target words to nonwords

The decision to use nonwords as stimuli for the current study was based on several factors. Firstly, nonwords have been widely used in experimental methodologies in language acquisition studies of word recognition, such as lexical decision tasks (Meara, 2013). Secondly, using nonwords instead of real English words ensures that participants have no prior knowledge of the words and minimizes the impact of individual differences in proficiency levels (König et al., 2019). In selecting the target words from the first pages of the text, the aim was to find high-frequency words that were likely familiar to the participants. Had the replaced target words been closely connected and specific to the story in *Metamorphosis*, it might have either disturbed the reading experience or they could have gone unnoticed. The intention was for the participants to rely on context or use other strategies to acquire the words. Implications for this, including grammatical placement of the nonwords are further discussed in Chapter 5.

The following were selected as target words for the study: *bed - head - sleep - business - train*, including then a mix of nouns and a verb. No further focus on word class was prioritized in the test design. Words in the same family as the target words were also identified and assessed for nonword replacement. The nonwords for the original five target words were given the same suffixes that the original words had in the text, including -ing and -iness. The only extra word coming from the base target word is "bedpost", and the decision was made not to create a nonword for "post", but simply to add the ending to the nonword for "bed". Words with varying frequency in the text were consciously chosen in order to investigate if there was a correlation between more encounters and better scores in the test, as discussed in the introduction and as reflected in RQ1. The nonwords were designed to differ by no more than one than one syllable from the original target word to ensure that the words were not too difficult or tricky to understand. Four of five nonwords were chosen from a list of words suggested appropriate for a reading test (Meara, 2013). The last nonword was developed independently from a nonword generator. The only nonword that differed in the number of syllables from its target word was the nonword for "head," which had one additional syllable in its nonword form. The nonwords are marked with an asterisk to demonstrate their incorrectness in the English language. Table 1 shows an overview of the target words to nonwords and their frequency of occurrence in the study text.

Table 1

Target words to nonwords and frequency of occurrence in the study's text

Target word	Nonword	Frequency of occurrence
bed, bedding, bedpost	*noot, *nooting, *nootpost	23
head	*alden	9
sleep, sleeping, sleepiness, slept	*shust, *shusting, *shustiness, *shusted	7
business	*dowrick	9
train	*hamp	9

We see that four of five target words appear less than 10 times each in the text. We also see that the three target words appearing nine times each, appear only in their root form, meaning they have no affixes nor suffixes, as opposed to *noot and *shust, which make up the outer parameters for frequency of occurrence on each end of the scale, *noot appearing 23 times in the text and *shust only seven.

3.4 Test design

The questionnaire used in the current study was developed and administered through the online platform Nettskjema. The questionnaire consisted of six parts, all marked as obligatory for the participants to ensure complete and comparable data. The instructions and questions in part A, B and F were written in Norwegian to support the participants' understanding best, as these parts concerned background information on each participant and self-reported habits and strategies in the usage of English. For the sake of coherency these parts are translated from Norwegian to English here. The full questionnaire is available in the Appendix 2.

Part B included different question types; matrix section (1), radio buttons with one possible answer (2), and checkboxes with multiple answers possible (3).

(1) How often do you read fiction texts in English on your own initiative?
every day—several times a week—a couple times a week—sometimes—never

(2) When you watch English-speaking movies, which of these alternatives do you use the most?
o   subtitles in Norwegian
o   subtitles in English
o   no subtitles

(3) Which platforms do you use where you encounter English content?
☐   books
☐   audiobooks

- ☐ streaming services such as Netflix, HBO Max, Disney+, Viaplay, TV2 Play, Apple TV+, Discovery+, SF Anytime, NRK TV
- ☐ mobile applications such as TikTok, Instagram, Facebook, Twitter, YouTube
- ☐ platforms for interactive live streaming services such as Twitch, Discord
- ☐ other platforms than the mentioned
- ☐ none of the above

The questions were included to get insight into how much English the participants use and encounter outside of the classroom, as this is of interest in RQ2. The extramural activities which were inquired about were reading fictional texts on their own initiative, writing texts in English on their own initiative, watching English series and/or films, playing English computer / console games, using websites or mobile applications with audiovisual English content, reading English content online (such as newspapers or social media). The activities asked about were based on two things, primarily; 1) an impression of where Norwegian 16-year-olds can encounter English content, and 2) previous research suggesting that these kinds of activities are correlated with students' vocabulary knowledge and growth, as outlined in Chapter 2.

The second matrix section in part B asked the participants to consider several statements regarding reading strategies in a general reading situation, relating to the focus in RQ3. Part F asked participants to reflect on their reading experience from the research and answer the same questions from Part B in past tense, allowing for data comparison in the analysis. An example from the reading strategies question is "When I see a new word in English, I visualize it to understand it". The five strategies the participants were asked to evaluate in relation to their own usage were 1) visualizing the word, 2) re-reading parts of the text, 3) using context, 4) going back and forth in the text to find coherence, and 5) guessing the unknown word's meaning. Although there are many more strategies to use, also from different dimensions of vocabulary acquisition, the final five strategies were chosen on the basis that they were possible to use during testing. In addition, as strategy use is one of three RQs, there was not room for more extensive research. The wording and focus of the strategies were inspired by Saito (2020).

Part C in the questionnaire focused on the participants' prior English vocabulary knowledge and consisted of 30 questions in the form of Nation and Beglar's (2007) VST. The VST was included to be a main variable in the analysis of the data, as RQ2 reflects. The VST regarded level 4, 5 and 6 because the text was at a 6,000-word level, and the levels were therefore included to determine whether and ensure that the text was appropriate for the participants or students of their age in general. All ten questions from each level (4, 5 and 6) in the VST were included to ensure proper use of the test (Nation & Beglar, 2007). An example of a question from the VST test at level 4,000 is shown in (4)

(4) COMPOUND: They made a new compound
   a. agreement
   b. thing made of two or more parts
   c. group of people performing a business
   d. guess based on past experience

Part E was a twofold post-reading test, designed to test the participants' acquisition of the nonwords, consisting of a translation test and a test called 'Odd one out', respectively, testing meaning recognition (Stanovsky & Hopkins, 2018, p. 1534). Meaning recognition is a response to a sensory cue, so during testing this meant that the participants related their 'understanding' of the words from reading the text to the questions in the tests. Laufer and Aviad-Levitzky (2017) argue that a meaning recognition test is more appropriate than a meaning recall test for measuring comprehension vocabulary. Additionally, Nation (2013, p. 51) shows how a new foreign language word has one simple link to its L1 translation, this being the receptive direction, and since the nonwords were indeed new and foreign, it was deemed interesting to see the participants' receptive knowledge of the words after reading. An example sentence was provided for each question in both tests to support the participants' experience. The participants were made aware of the example sentence per target word before testing commenced. Not offering example sentences could tempt the participants to keep the pamphlets with the study text during the post-reading test, even though they were instructed to hand it in after reading. Moreover, getting the target nonword in a context in the post-reading test helps them see the word in a context, as contextual clues, if not number of occurrences, can be a predictor of acquisition, and to minimize the chance of wild guessing. Naturally, offering an example sentence from the text containing the relevant nonword for each of the questions increases the number of encounters the participants have with each nonword - implications are discussed in Chapter 5.

The translation test consisted of five questions; one question dedicated to each of the nonwords in the text. Each question asked for the correct Norwegian translation of each nonword, as illustrated in (5). The translation test was designed to have plausible alternatives that required the participants to evaluate and consider each option.

> (5) What would be the correct Norwegian translation of the word "noot" from the text?
> a. seng
> b. stol
> c. sofa
> d. benk

The "Odd one out" test consisted of 15 questions, where each nonword (or variation of the nonword, cf. shust / shusting) occurred three times each in different strings of words, asking the participants to identify whether the nonword was 'relevant' in the string of words, answered in "yes / no" for each question, as shown in (6). The questions were placed in no particular order on the same page of the questionnaire.

> (6) salesman - suit - dowrick - trade - money
> Does the word *dowrick* fit in with the rest of the words?
> a. Yes
> b. no

3.5 Procedure
Before testing, a brief presentation was held in Norwegian by the researcher to explain the purpose and procedure of the research, and the classes' teachers were present to reinforce the 'real-life English class task' feel of the study. The participants were not given insight into the specific focus of the study or the presence of nonwords in the text,

keeping the level of transparency during testing low. A hyperfocus on the nonwords and exact focus of the research could disrupt the design of the testing, intended to imitate a regular in-class reading task. An alternative task was available for students who chose not to participate in the study. The teachers of the respective classes were responsible for this, and it was agreed between researcher and teachers that the alternative tasks were equal to the study in terms of workload and similarity. The study was conducted in the classroom as it is a familiar environment for the participants. The alternative task was also done in the classroom to ensure that neither option was more attractive than the other.

3.6 Ethical considerations
Ethical considerations are important in this study, given that it involves exposing participants to words that do not exist in the English language, and subsequently testing their scores. Informed consent was obtained from all participants prior to the data collection, although they were not explicitly informed of the presence of nonwords in the text. A disclaimer was provided toward the end of the questionnaire, stating which real English words had been replaced with nonwords, encouraging the participants to dismiss the nonwords going out of the testing. An oral disclaimer after the research was conducted was also given in all rounds of testing.

Participants were ensured, both written and orally, of their anonymity and the measures taken to protect their responses during data collection and analysis. The necessary approval of data collection by The Norwegian Agency for Shared Services in Education and Research was given October 17, 2022. Even though the participants were asked to disclose information considered indirectly identifiable, there is no way to trace each participant's answer back to them. Regardless, to ensure the participants' privacy, individual scores will not be disclosed, and all data will be presented at group level.

4. Results

The following chapter reveals results from the data collection.[5] Out of all 74 participants completing the questionnaire, 72 answers (97%) were eligible for analysis. Two answers were removed based on 1) not meeting the formal criteria of participation in the study (see Chapter 3), and 2) incorrect completion of the questionnaire. The questions and alternatives in part A, B and F in the questionnaire are also here translated from Norwegian to English for the presentation of results for the sake of coherency. Again, the nonwords are marked with an asterisk to demonstrate their incorrectness in the English language.

RQ1 is interested in how the number of encounters predict acquisition of new vocabulary. To answer this, participants answered a post-reading test immediately after reading, consisting of a translation test with one question per nonword and an 'odd-one-out' test with three questions for each nonword. Table 3 shows frequency of occurrence for each nonword in the text, the participants' scores in both tests and the percentage correct for each question in both tests.

Table 2

Nonwords, frequency of occurrence, correct answers in numbers and percentages[6]

	*noot (bed)	*alden (head)	*shust (sleep)	*dowrick (business)	*hamp (train)
Frequency of occurrence in the text	23	9	7	9	9
Translation test scores	89%	35%	93%	29%	63%
Odd-one-out test scores	75%	76%	64%	66%	52%
Combined scores, total correct	82%	56%	79%	48%	58%

The nonword *noot had the best scores over-all with 89% correct in the translation test and 75% in the odd-one-out test, making a combined score of 82%. Out of the four other nonwords, *alden, *dowrick and *hamp occurred nine times each, and *shust occurs only seven times. What is interesting is that *shust, appearing the fewest times in the text, had the highest score in the translation test, at 93% correct. The nonword with the lowest score is *dowrick in the translation test, with a score of 29%, meaning less than a third of the whole participant group got it right. Out of the three nonwords occurring the same number of times (nine) and only in one form, *hamp got the highest score in the translation test, but the lowest in the odd-one-out test. Scores for *alden

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[5] Part of the reason for inclusion of the VST was to ensure that the *Metamorphosis* excerpt was not too difficult for the participants (see 3.3 Test design). The researcher and the participants' teachers agreed it was appropriate because no students reported an issued with it, nor did the participants seem to have any trouble in completing the reading task.

[6] The color coding in Table 2 and Table 3 (below) is meant for visual representation of 'the level of good scores' from the tests.

also varied greatly from only 35% correct in the translation test, but 76% correct in 'odd-one-out', making the latter the highest score out of all three nonwords appearing nine times each.

What Table 2 also shows is that answers from the odd-one-out test are more even in terms of percentages correct, ranging from 52% to 76%: a difference of 24 percentage points, whereas the answers from the translation test range from 29% to 89%, constituting a difference of 60 percentage points. Another angle to look at this from is that a score of >50% correct is found in three of five nonwords in the translation test, and that five of five nonwords scored >50% in the odd-one-out test, which might suggest that participants' acquisition was supported by the context of the nonwords in the odd-one-out test. Table 3 shows the participants' combined scores in each test, and in the tests combined.

Table 3

Combined scores for both post-reading tests

	Translation	**Odd-one-out**	**Combined**
Total answers	360	1080	1440
Correct answers	222	719	941
Percentage	62%	67%	65%

Table 3 shows that the translation test gained an acquisition rate of 62%, the odd-one-out scored 67%, and the whole post-reading test scored an average of 65% correct answers. Since many different factors can affect acquisition rates, it is difficult to determine whether the scores depended solely on the number of encounters the participants had with each nonword. The table is included for further discussions relating to the overarching aim of the thesis.

Statistical significance was found between the scores from the VST and the translation test, showing $t(70) = 2.32$, $p = .02$ in a Pearson correlation test. A second Pearson correlation test was conducted to examine the relationship between the VST scores and the odd-one-out test. These results also indicated a significant positive correlation between the two variables: $t(70) = 3.46$, $p = <0.001$. This suggests that participants who scored well in the VST were better equipped to answer correctly in both post-reading tests due to their higher previous vocabulary knowledge.

Results from the study also show that extramural activities significantly correlate with the VST scores. In order to investigate whether extramural activities related to reading were good predictors vocabulary size, a regression analysis was conducted to determine which types of extramural activities were the best predictors of scores on the 4,000 - 6,000 levels of the VST. The regression model showed that the frequency of six types of extramural English activities was a significant predictor of VST scores ($p = .013$). In the data processing, the answers from the matrix section in part B of the questionnaire were given scores according to the rate of the usage of English the students reported ("every

day" =4, "several times a week =3, "a couple times a week" =2, "sometimes" =1, "never" =0). Answers from the VST were also scored in the data processing[7], where the answers from each participant were given =1 for correct answer and =0 for incorrect answer. Table 4 shows the results of a linear regression investigating effect of different extramural activities on the VST scores.

Table 4

Extramural activities' effect on VST scores

Coefficients	Estimate	SE	*t*	*p*
(Intercept)	15.29232	2.17336	7.036	1.5e-09
Reading fiction literature	0.77343	2.17336	2.017	.0479
Writing	0.09089	0.37156	0.245	.8075
Watching series	0.11193	0.48426	0.231	.8179
Gaming	-0.40808	0.30469	-1.339	.1851
Audiovisual platforms	0.81972	0.42533	1.927	.0583
Online reading	0.89992	0.44157	2.038	.0456

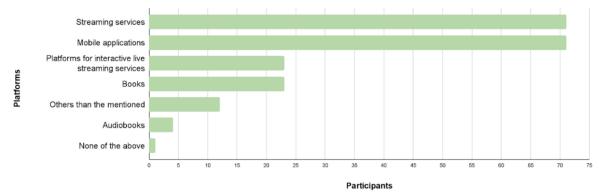*Notes: SE* = Standard Error. Residual standard error: 3.115 on 65 degrees of freedom, *p*-value = .013.

The extramural activities "literature" and "online reading", coming from the questions "How often do you read fiction on your own initiative?" and "How often do you read English online, for example on websites or social media", respectively, show statistical significance[8] in relation to the VST scores, meaning that literature and online reading were the best predictors of correct answers on the VST - suggesting that students that read in a physical format and online texts have a higher existing L2 English.

t-tests were run to investigate if there were any differences between the genders in the VST and in the post-reading tests for nonword acquisition, but as for other similar studies, they showed no statistical significance, and the data was eliminated from further analysis and discussion.

Although this was not scored and tested statistically, the participants were asked to state which platforms they use–in general–where they encounter English content. There was no specification on time in this question, meaning the participants could have answered on the basis of a day, a week, a month or longer. This is further discussed in Chapter 5. The participants had the possibility to check up to six alternatives. Findings are presented in Figure 1.

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[7] Complying with the rules of use of the VST, there is no correction to guessing in the scores. Still, because the test is a partially sensitive test, and precisely because there is no correction for guessing, the VST score is a slightly generous estimate of vocabulary size (Nation & Beglar, 2007).
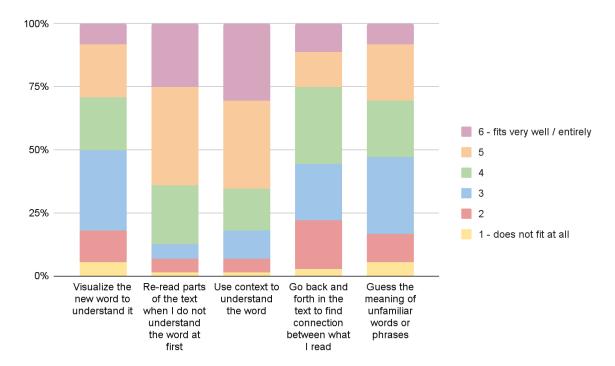[8] Statistical significance is *p* = <.05 (Field, 2018)

Figure 1

Platforms where participants encounter English content

Examples for some of the alternatives were provided in the questionnaire and are reproduced in plain text here. 71 participants (99%) reported using streaming services such as Netflix, HBO Max, Disney+, Viaplay, TV2 Play, Apple TV+, Discovery+, SF Anytime, NRK TV. The same number of participants, 71 (99%), also reported using mobile applications such as TikTok, Instagram, Facebook, Twitter, YouTube. 23 participants (32%) reported using platforms for interactive live streaming services such as Twitch, Discord, and the same number of participants, 23 (32%), reported using books as a platform where they encounter English. 12 participants (17%) stated they use other platforms than the ones mentioned.[9] Lastly, four participants (6%) reported using audiobooks, and one participant (1%) reported using none of the platforms mentioned where they encounter English content. Figure 1 relates to RQ2's inquiry about extramural English and shows that almost all participants use social media and streaming services where they encounter English, indicating a relatively high level of engagement with English on various platforms, across the sample. In turn, although not scored and tested statistically, this informs the aim of the study with insight into where Norwegian vg1 students encounter English in their spare time. Regardless, the results show that extramural activities significantly correlate with the VST scores, which again are predictors of better post-reading (nonword acquisition) scores, which are interesting findings from this study.

RQ3 is interested in students' reading strategies, and for insight into this the participants were asked to consider various statements regarding strategies for different challenges that may occur when reading, and to answer according to what resonated the most. The six-alternative scale does two things; firstly, it forces the participants to choose 'which side' they resonate with the most. Secondly, it allows for a more binary reading in the analyses, as answers 1-3 may be read to mean 3=more no than yes, 2=not very fitting and 1=does not fit at all. Likewise, the alternatives 4-6 could be read as 4=more yes than no, 5=quite fitting and 6=fits very well/entirely. Definitions for alternatives 1 and 6 were provided in the questionnaire to avoid confusion and misinterpretation of the alternatives.

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[9] Because the participants had no opportunity to state which other platforms, this remains unknown.

Figure 2

Participants' self-reported reading strategies in a general reading situation, pre-reading
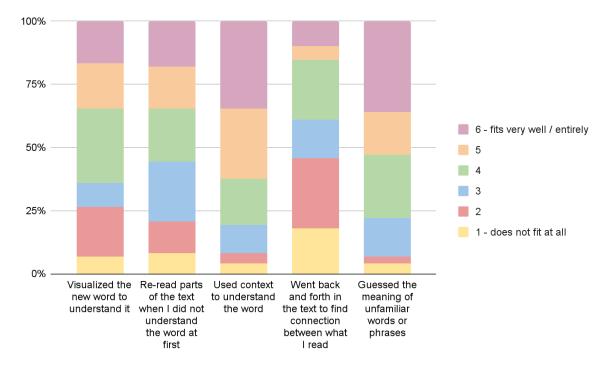

An interesting finding from the pre-reading strategy report is that >50% of participants answered 'positively', meaning the alternatives 4-6 on four out of five strategies, and the fifth strategy (leftmost in Figure 3) shows a 50/50 split between the participant group, suggesting that the strategies are 'more used than not'. Another interesting finding is that the participants are careful in choosing the extreme points of the scale on both sides, suggesting an uncertainty or unwillingness to admit to one side completely. The highest score from Figure 2 is found in the strategy "Re-read parts of the text [...]", as 28 (39%) participants answered 5 on this question. The lowest reported number is seen as 1 participant (1%) chose "1 - does not fit at all" in the re-reading strategy, 'tied' with 1 participant (1%) reported the same for using context.

The post-reading reading strategy report asked the participants to rate the same statements but to consider the specific reading situation they just experienced. This was done to see whether these answers differed from the strategy report from before they read the text. Figure 3 shows results from this.

Figure 3

Participants' self-reported strategies in the specific reading situation from the study, post-reading

The post-reading strategy report shows interesting differences from the pre-reading strategy report. Firstly, 26 participants (36%) answered having guessed the meaning of unfamiliar words or phrases with alternative "6 - fits very well/entirely", making this the highest score in the post-reading strategy report. The second highest score is from the same rating of the strategy using context, with 25 participants (35%) reporting this as "fits very well/entirely" for their reading experience. Secondly, we can read that more participants used the extreme points of the scale in the post-reading strategy report, seen as the number of participants choosing "1 - does not fit at all", regardless of strategy, is <5 in the pre-reading report, whereas in the post-reading report, this number is >5 for two strategies, =5 for one and <5 for the other two strategies. If we combine the numbers of observations for alternative 1 and 6 in both reports, numbers increase from 12 to 30 participants and from 60 to 83 participants for the alternatives, respectively.

It should be noted that the strategy matrix sections in part B and F originally asked for different things; part B is interested in a general reading situation, whereas part F specifically focuses on the reading experience from the research. This makes the numbers not *directly* comparable. Should the results have been directly comparable, the pre-reading strategy report could have asked participants to rate the strategies they think they might use, but the value in this is unclear and was thus dismissed in the development of the test design. Nonetheless, findings from both reports are interesting, for example in terms of secureness in the participants' answers. This is discussed further in Chapter 5.

The key findings from the research conducted for this thesis include that the extramural activities *reading* and *online reading* were the best predictors of higher scores in the VST, but that participants with a higher level of engagement with English outside of the

classroom in general scored higher in the VST as well. Related to this, we see from the results that participants scoring higher than others on the VST were good at the translation test and the odd-one-out test. Other results show that the number of encounters with each nonword in the text and possibly from the post-reading tests were not crucial to the participants' acquisition, but certainly part of it. Other factors like guessing and using context for clues seem to be important contributors to the overall scores of the tests. Lastly, a key finding regarding strategy use is that the participants used a variety of strategies in general, but for the fiction texts there was more guessing from context and less going back and forth. Analyses of and discussions on the results follow this chapter.

5. Discussion

The aim of this study was to gain insight into what factors predict and affect the process of vocabulary acquisition, in order to say something about the inclusion of fiction literature in the Norwegian ESL classroom. The quantitative approach has resulted in interesting findings relating to each RQ and the overarching aim of the thesis. This chapter offers analyses and discussions based on the results in Chapter 4, the literature review in Chapter 2, and implications for the language acquisition field. The research questions for the study conducted were:

RQ1 How do the number of encounters predict acquisition of new vocabulary?

RQ2 Which extramural activities are predictors of high scores on a vocabulary size test?

RQ3 What reading strategies do students report using for unfamiliar vocabulary, pre- and post-reading of a mid-frequency graded reader?

5.1 The number of encounters

In order to answer RQ1, participants' acquisition was tested on the target nonwords immediately after reading the *Metamorphosis* excerpt, and the results show that the nonword with the highest frequency (among the five nonwords) in the text (*noot) was acquired best, over-all, with a combined acquisition score of 89% across the participant sample. This supports earlier studies in their findings that words appearing more times are generally acquired better, at least for words with more than ten exposures in a text (Pellicer-Sanchez & Schmitt, 2010). A preliminary conclusion is then that the more exposure, the more plausible it is that readers acquire new vocabulary.

A very interesting finding, however, is that the nonword *shust, which only appears seven times in the text, got 93% correct answers in the translation test, a surprising four percentage points more than *noot. This disproves a reasonable hypothesis that a word appearing few times in the text gains the lowest acquisition rates in a test. It should be noted that the difference in frequency of occurrence in the text between the nonwords is rather large - ranging from one occurring 23 times, to three nonwords occurring nine times, and one occurring seven times, as shown in Table 1. The lowest score in either test is found with the nonword *dowrick, with only 29% correct, meaning that less than a third of the whole participant sample got it right.

For the three nonwords with a frequency of occurrence of nine each, *dowrick appears for the first time on the first page of the story, twice and in close proximity, and once more on page two. Then it does not appear in the next four pages. The last four pages of the text contains the six remaining exposures for *dowrick, all rather spread out over the paragraphs, except for one line where it occurs twice in a sentence. For the other two nonwords appearing nine times each, *alden appears the first time in the second sentence of the whole text. Pages two and three also features the nonword one time each, whereas page five features the densest display of *alden, where it occurs four times in a paragraph of nine lines. It then appears two more times in the two following pages, resulting in a nine-time frequency of occurrence. Like the other two, *hamp also occurs for the first time on the first page of the text. It also appears on page two, and then three times in one paragraph on page three. It does not appear on the next four

pages but appears three times in one paragraph on page eight again, before the last exposure is on the last page of the text. Based on the descriptions on the placement of the nonwords in the text, we see that *dowrick is much more spread-out than the others, and this might be a possible reason for the low scores. *Alden and *hamp both appear in close proximity a few times in the text, rather than alone on all pages, for example, and from these observations it is possible to suggest that density and proximity of the target words, for language acquisition in general, is a factor affecting acquisition rates.

Word class and function are other factors which could have affected acquisition. *Alden and *hamp appear exclusively as nouns in the text, whereas *dowrick also appears as a noun, but in the context of "conducting *dowrick", which makes it a more abstract phenomenon than a concrete object. This might have confused the participants and is a plausible explanation for the low score. Related to this is the syntactic position of each word, which can also affect acquisition (Hu, 2013). The reader's interpretation of a text is triggered by lexical items with meaning, and so the word order itself carries meaning when they read. This is related to the concrete object versus abstract phenomenon variable. Adding to the word function, the importance of understanding the nonword in order to understand the text could also have affected acquisition (Nation, 2013, p. 363), as the *business* is arguably not of essence, but the fact that Gregor, the main character, misses work. Regarding the word *business* itself, it is possible that because *business* is an accepted Norwegian word that the participants ruled out this option or dismissed it in the tests because of its familiarity or its validity in Norwegian. Lastly, form and spelling can also be important for acquisition; especially when discussing nonwords as these can differ greatly, from being almost 'real' to being 'legal' but more 'far-fetched', in terms of spelling, sound or associations.

With these findings, we cannot establish a correlation between a set frequency of occurrence of unfamiliar words in a text and acquisition rates directly, but findings from my study suggest that it is of *some* importance, in addition to factors like proximity of occurrence and variability of contexts (Nation, 2013, p. 363). Besides, the difference between frequency of occurrence and number of encounters needs to be addressed. The number of times a word appears in a text does not necessarily equal the number of times a reader encounters the word: the number of encounters will depend on what kind of reading the reader does; for example, what strategy or strategies they employ, for example if they read parts of the text multiple times. Additionally, for this study, as every question for each nonword had its own example sentence from the text in both post-reading tests, we must assume that the number of encounters is at least four more than each word's frequency of occurrence in the text, given that the participants read the example sentences for each question in the tests. Because the participants had 'access' to four more encounters with the words, we can ask if, and hypothesize that (although it cannot be confirmed nor disproven from the current study), the acquisition rates would have been lower had the questions not included example sentences.

As discussed, it seems that other factors than the number of encounters could well be as important for language acquisition, for example context, as introduced in Chapter 2. Especially one thing that can suggest context's relevance in acquisition is how results from Table 2 and Table 3 reveal that the participant sample over-all scored better in the odd-one-out test than in the translation test. Reasons for this might include that it was easier for the participants to acquire the nonwords from seeing them in context provided in the odd-one-out test. Seen in relation to the results in Table 3 and drawing on the

previous discussion on possible reasons for the great variance in test scores between the nonwords, we see that *dowrick gained 66% correct answers in the odd-one-out test, constituting a difference of 37 percentage points from the translation test. This suggests that it is easier to see a word in context and determine its relevance - even if, or perhaps especially when, it is a more abstract phenomenon than a concrete object. The high score for *shust, as it appears in four different forms throughout the text (as shown in Table 1), might also suggest that it is easier to translate a word from L2 to L1 when it is encountered in various forms (Laufer & Girsai, 2008), also speaking to the point of context's importance and variation in exposure in language acquisition.

Although the guidelines for the use of the VST says to not *correct* for guessing in the test, I find it necessary to comment on the general completion of the VST and both post-reading tests. Firstly, all questions were obligatory and no option for "I don't know" was available in any of the questions, forcing the participants to use partial knowledge, context or guessing in order to continue (Stoeckel et al., 2021). Secondly, although measures were made to limit this, there might have been a felt incentive to complete the questionnaire as quickly as possible, causing the participants to rush through and not spending 'enough' time to make informed decisions for each question. For guessing, the question of the odds of them getting their answers right arises. Each question in the VST had four alternatives where the participants could choose only one answer, resulting in a 25% chance of guessing correctly. The translation test had five questions, one question per nonword with four plausible alternatives, also constituting a 25% chance of guessing correctly. Lastly, the odd-one-out test answer alternatives were "yes"/"no", constituting a 50% chance of correct guesses for each question. That is to say, these percentages are only correct if the participants used no other method than guessing, like an elimination method on the basis of their own judgment, resulting in the choice between two alternatives for the VST and translation test, for example.

It seems like the number of encounters with each nonword was not crucial in predicting the participants' acquisition, but part of it. This suggests that it is more complex than 'numbers of encounters predicts acquisition', and that other factors like guessing and using context are important contributors to this process. From here, it can be useful to look at other factors that can be important in vocabulary acquisition, such as extramural input and reading strategies.

5.2 The effect of extramural activities

Results presented in Chapter 4 relating to RQ2 showed that the frequency of engagement in extramural activities significantly correlated with the VST scores (see Table 4). This suggests that a higher level of engagement with English in students' spare time positively affects their English vocabulary and can suggest that incidental learning takes place in these activities, be it reading fiction literature, gaming, using various mobile applications and others. Conversely, the findings in this study can also suggest that individuals with a smaller vocabulary are less interested in participating in EE activities, which might cause them to miss incidental learning others seem to have. This supports Peters and Webb's (2018) findings when they investigated incidental learning and found that it was affected by prior vocabulary knowledge, among other factors.

In relation to this, another interesting finding is that which tells us about the specific extramural activities and their effect on the VST scores. Results from the linear regression investigating the effect of different extramural activities on the VST scores

showed that reading fiction and online reading were significant predictors of VST scores (p = .049 and p = .0456, respectively). This answers the inquiry about which EE activities predict a higher prior vocabulary knowledge with that these are reading, both physical and digital. Additionally, if we draw on the findings from Cheetham et al. (2022) on students' preferred format for in-class readings (investigating printed and digital graded readers), we see how findings from my regression mirror how students' attitudes on reading format also can apply for extramural reading, and that it is the *activity* reading which is associated with vocabulary size.

Moreover, Pearson correlation tests showed statistical significance between 1) the relationship between the scores from the VST and the translation test, and 2) the scores from the VST and the odd-one-out test. This tells us that higher existing vocabulary knowledge, as seen in the VST scores, is a predictor of higher acquisition rates of target words from unassisted reading. In combination with the results that show that extramural activities significantly correlate with the VST scores, these findings suggest that extramural activities are positively linked to participants' abilities to completely unknown lexical items just from reading, with no assistance in dictionaries, glossary in margins or from explicit instruction.

Results from Figure 1 show which platforms the participants encounter English content. The results were generally as expected, namely that streaming services and mobile applications were widely used by 16-year-olds in Norwegian vg1 classes, and that usage of other platforms like interactive live streaming services and books was also somewhat present within the sample. It would have been interesting to learn which other platforms they use, as this answer rate was rather high, with 12 participants (17%) reporting use of 'others than the mentioned'. Regardless, if we combine these findings with the results from Table 4 showing the scores from the total sample in each test and in both tests combined, this can suggest that since most participants were active on either (or both) streaming services and mobile applications, these are also possible reasons for the relatively high acquisition rates due to incidental learning on these platforms. However, the question of validity and generalizability from these findings emerges, as time was not specified in the question, meaning the participants were free to determine the time span in which they based their answers on themselves. This entails that the data from all 72 participants can have answers reporting on usage of platforms with English based on one single day, a week, a month or even longer, so the findings must be treated with caution.

The results relating to RQ2 show that extramural activities significantly correlated with VST scores - and participants who scored well on the VST were good at the translation test and the odd-one-out test. This suggests that students with a higher level of engagement with English in their spare time might pick up and acquire words easier, equipping them to do well for in-class work related to reading as well. As reading fiction can expose students to new vocabulary in context and can help them acquire language in a more natural and engaging way, relating to the overarching aim of this thesis, I argue that incorporating fiction literature on the ELT/ESL syllabus can serve as an effective tool to encourage and motivate students to engage with the language outside of the classroom, which in turn can support vocabulary growth and subsequently serve as an advantage in-class.

5.3 Reading strategies

As we have investigated and discussed the effect of the number of encounters and extramural English, it is time to look at the reading strategies, which is a learner-related variable shown to affect language acquisition, as introduced in in Chapter 2.

For this we are interested in reading strategies Norwegian students in vg1 report using when encountering unfamiliar vocabulary, both in general and specific reading situation, the latter being the *Metamorphosis* excerpt for the study. In Figure 2 we got insight in the participants' reported general reading strategies, which showed that >50% of participants answered 'positively', meaning the alternatives 4-6 on four out of five strategies, and the fifth strategy had a 50/50 split between alternatives 1-3 and 4-6, suggesting that the strategies are more used than not. This can tell us that the better part of the participant sample has knowledge of and experience with these strategies. In Chapter 4, I commented on Figure 2 saying how the participants seemed to be careful admitting to one side on the six-point scale when they reported reading strategies for general reading situations. I also compared these numbers with those from the post-reading strategy report (Figure 3), which showed a relatively large increase in the usage of the extreme points of the scale, from 12 to 30 answers on "1 - does not fit at all" across all five strategies, and 60 to 83 answers on "6 - fits very well / entirely" across all five strategies. As mentioned, the data is not directly comparable, but that was not intended: the wish was to see differences between general and specific reading situations.

In Chapter 2, I introduced the importance of not only knowledge about reading strategies, but also the skills relating to choosing appropriate ones for different reading situations (Nation, 2013). What we are left with from the post-reading strategy report is that more students chose the extreme points than in the pre-reading test, suggesting that they were more certain in their answers, but it could also mean that the strategies with the highest scores in the post-reading strategies were experienced as more appropriate for that particular kind of reading task, and that strategy reports from a different reading task such as finding information in a factual text would look very different from fiction reading. Relating to this and the question on number of encounters, it is interesting to note that few participants reported that they went back and forth in the text, which suggest that the participant sample had a similar number of encounters with the new vocabulary. Had the reports shown an increase in strategy use of going back and forth, this would have meant more encounters for the participants, and possibly affected the acquisition rates.

Additionally, there is a key factor that may have influenced the increase in choices for the extreme points (1 and 6) in the post-reading strategy report, namely the role of awareness (Zhao et al., 2021). It is unknown when the participants last discussed or even reflected on reading strategies prior to testing, so it is possible they became more aware of their strategy use while reading, or simply had it fresh in their memory as they answered the post-reading strategy report. However, during the short presentation before testing commenced, they were made aware of the focus on reading strategies, and they were explicitly told to differentiate between an arbitrary or general reading situation and specific reading task afterwards, so the chances of them being completely unaware prior to any reports (possibly causing vague answers) is limited. It is also a possibility that the participants 'saved' the extreme points for the post-reading strategy report, or that the ambiguity in Figure 2 simply shows that participants may have been

uncertain about their strategy use. The awareness of a few selected strategies from the pre-reading strategy report might also have affected their acquisition, as the awareness of the strategies might have affected the reading itself, by participants utilizing the strategies they were asked about before reading. Again, these are all speculations, but arguably important points as to what might have affected the participants' experience.

A finding from the strategy report results is that some reading strategies are arguably more appropriate, at least more used, for fiction reading. This has important implications for the selection and teaching of reading strategies in the ESL classroom. It suggests that reading strategies should not be treated as a one-size-fits-all approach, but rather tailored to the specific type of reading task at hand. For instance, when teaching reading strategies for fiction texts, especially for when readers encounter unfamiliar vocabulary, it might be more beneficial to focus on strategies that encourage active engagement with the text, such as using context to acquire new words, while for factual texts, strategies that promote skimming and scanning for key information might be more appropriate. This could explain why fewer participants reported going back and forth in the text when they read fiction than when they answered the general reading strategies matrix section. By teaching students how to choose and apply appropriate reading strategies for different types of texts, teachers can help students become more proficient readers and better equipped to tackle a variety of reading tasks, which can support their reading competence and language proficiency.

An interesting finding is that the students reported using a variety of strategies in general, but that for the fiction texts there was more guessing the meaning and using context to understand the words, and less going back and forth. This might imply that students who have knowledge of and access to various reading strategies may be capable of choosing suitable strategies for specific reading situations, and that teachers should emphasize this through focus and task-based ELT.

5.4 Authenticity
In the introduction, I discussed how fiction texts could provide authenticity for ESL students. The question arises then if *Metamorphosis* is authentic for Norwegian ESL 16-year-olds. Firstly, participants did not read the entire novel, as described, but an excerpt of about 4000 words (*tokens*), including the feature of five nonwords. However, as it is evident that fiction in-class can stimulate to real ER outside the classroom, we should not rule out that the excerpt made some students want to read the real novel. With regards to *Metamorphosis'* authenticity, the first argument is that it is considered a classic work of literature, which through reading students can familiarize themselves with an acknowledged novel. Moreover, isolation and identity are important themes in the novel, which 16-year-olds might very well relate to. Additionally, should the participants want to read the novel, I will argue that the adapted version can be a useful start, as Adler (2010) suggests that translations of the text (and I dare include adapted versions for this argument) can "'smooth out' Kafka's allegedly 'rough' syntax or semantics" (p. 135). Drawing on the arguments of accessibility and appropriate language often found in YAF, adapted and/or translated versions of larger and more demanding reads can still be used in the classroom or for extensive reading purposes, which is why I will argue that *Metamorphosis* is authentic *enough* for ESL classroom use.

5.5 Pedagogical take-aways

Pedagogical take-aways from the study and in relation to the overarching aim must include comments on the role of the instructor. It is evident that this study 'puts the responsibility' to acquire new words solely on the reader/student, and this was done intentionally because isolating it can tell us something about how important explicit instruction and teacher interference is for the process of language acquisition. Mending the gap between students' acquisition rates and what they cannot seem to do themselves is to support second language acquisition in a well-thought and intentional course (Nation, 2013). The inclusion of fiction is therefore to be seen as part of a larger attempt of supporting students' vocabulary growth by offering authentic English in context, and supplementary motivating materials in-class.

Part of this study asked how the number of encounters predict acquisition rates of new vocabulary in an 'unassisted' reading situation. The short answer is *fairly well*, seen in the pick-up rate of >60% among all 72 participants in the study for both post-reading tests. Despite the relatively high scores, there is naturally room for improvement, and that's where the instructor's role comes in. In chapter 2, we saw that Nation (2013) is interested in the four main strands of a well-balanced language course: meaning-focused input, meaning-focused output, language-focused learning, and fluency development. Arguably, as mentioned, the study in this thesis relates to the first strand, but the thesis is essentially interested in all of them, with regards to fiction's role in the Norwegian ESL classroom. If we consider students' ability to acquire words from reading alone, this leaves us to ask what the results could be if there were elements of the other learning strands as well. Ultimately, it is important to note that acquiring language is *even more* complicated than described here, as we also must be aware of the context of the learning situation, how we test vocabulary, and where and what vocabulary is the target of acquisition, in addition to many other factors.

5.6 Limitations to the study

Although measures were made to limit cheating and incorrect completion of the questionnaire, sources of error in the testing include that the participants answered the questionnaire online, meaning they, theoretically, could look up the words in the VST. Participants also sat either two-and-two in the classroom or in such proximity to one another that they could have been tempted to look at, and get influenced by, their neighbors' answers. Moreover, as the reading part of the study was physical, this could have limited assisted text consumption of students who need this due to general or specific reading difficulties, meaning some might have been hindered in participating from the overwhelming amount of text, or that the time assigned for the study was not sufficient.

Limitations to the methodology include how there was only one round of testing, and that we therefore have no data for long-term retention (see for example Day et al., 1991). Another feature regarding methodology includes that there were many parts of the questionnaire, potentially confusing the participants, in addition to the many questions (and results) that did not make it to the final results section of this thesis.

If I were to conduct the research again, I would shorten the questionnaire by choosing a narrower focus for the study, and perhaps test long-term retention (although this would complicate the ethical aspect, approaching a kind of false teaching, given that the target words were nonwords).

5.7 Suggestions for further research

As I found that the number of encounters is not solely responsible for acquisition rates among the participants, I would like to suggest further research could include a similar approach, perhaps using nonwords, but explicitly and intentionally placing them in various syntactic positions to get insight into if and how readers acquire these differently, also relating to where the explicit instruction in ELT could help. Further research could also focus on how teachers in upper secondary develop and structure their learning material for the Norwegian ESL classroom.

6. Conclusion

This thesis has investigated several factors that predict and impact vocabulary acquisition from reading, aiming to shed light on how fiction can be useful in the Norwegian ESL classroom. The results from the study align with previous research (Horst et al., 1998; Saragi et al., 1978) in that that frequency of occurrence may not be the most important predictor of vocabulary acquisition, and that the proximity of new vocabulary and other contextual clues also play a significant role in this process (Nation, 2011, 2013). The findings also highlight the positive impact of extramural English activities, especially reading, on students' existing vocabulary knowledge and ability to acquire new words from reading.

Pedagogical implications include that teachers could encourage and inspire out-of-class reading by including fiction on the syllabus. Seen in relation to the growing interest in and awareness of the materials we ask students to engage with, the case of this thesis is that fiction can be an important supplementary language learning tool in the Norwegian ESL classroom, as the benefits of authentic English encounters through reading are present. In addition, teaching of different reading strategies and emphasizing skills in usage of them is also a takeaway from this thesis, as it seems like employing useful reading strategies can assist vocabulary acquisition. Overall, the results suggest that while students can acquire words on their own to some extent, there is also room for improvement through the implementation of effective teaching strategies (Nation, 2011; Schmitt, 2008) and the inclusion of engaging and authentic reading materials. As Krashen (2004) notes, reading alone may not produce the highest levels of competence, but it can certainly provide a foundation for higher levels of proficiency to be achieved.

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Appendices

Appendix 1: Thesis' relevance for the teacher profession
Appendix 2: Questionnaire
Appendix 3: Consent form
Appendix 4: Approval from NSD

Appendix 1: The Master's Project's Relevance for Work as a Secondary Teacher With a Master's Degree

This master's thesis marks the end of a five-year long journey to being able to call myself a secondary teacher with a master's degree in English. In my thesis I sought to combine components of English as a school subject, as a language profession, and as a literary field. From this work, I have gotten valuable insight in and experiences with developing ideas, conducting research, writing, re-writing, editing, deleting, handing in drafts for supervision, receiving feedback, and not least: persevering, all valuable experiences for the execution of the teacher role.

The content of the thesis is relevant to the teaching profession as it revolves around very central aspects to language acquisition and English language teaching. I have offered background on vocabulary acquisition, complicating the concept by looking at various factors that predict this process. Findings that show how well 16-year-olds can acquire completely unknown words just from reading are interesting on their own, but they also show how varying engagement with English outside the school can affect how they learn in-class. The pedagogical aspect in the thesis is also relevant because it provides valuable insights for teachers who are seeking innovative ways to promote language learning in their classrooms. The thesis highlights the importance of pedagogical approaches that integrate different aspects of language learning. This is particularly relevant for teachers who are seeking to create dynamic and engaging classrooms that encourage students to be active participants in the learning process.

Another aspect to this thesis is the process of writing it, which has been valuable to me. For instance, the research process has been incredibly interesting to be in. Conducting my own research has made me aware of everything that goes down before any participant can even state their year of birth or their first language in any study. The process included me narrowing down the focus of my study, developing a thought-through test design (including figuring out how to use the digital platform, and weighing the words in each question to ensure that the answers would give me data I could work with), gathering participants, finding an appropriate text for reading, editing said text and figuring out the text design, borrowing real teachers' students, actually conducting the research, data processing and finally, presenting results. I am incredibly pleased that I chose this direction as it has given me unique and very insightful experiences relating to research, reading, and teaching. Regardless of the amount of research I have read, methodologies I have considered, the findings I have related to my own research, there are still lots that did not make the final cut, or even things I will discover right as I finish this project, which speaks to the ever-evolving, always-learning teacher.

As I prepare to enter the teaching profession, the work with my thesis and the finished product will undoubtedly serve as a valuable resource, helping me establish engaging and effective language learning environments that support the growth and development of my future students. The knowledge and competence I inhabit after these five years, not least from this past year, I hope will benefit my future students greatly.

Appendix 2: Questionnaire

Del A
Her ber vi deg svare på spørsmål der svarene betegnes som personlig informasjon
Hva er morsmålet ditt?
Morsmål kalles også førstespråk, og er det språket du lærte deg fra du var barn.
- o Norsk
- o Engelsk
- o Annet

I hvilket år ble du født?
Vi ber deg om denne informasjonen fordi vi ønsker et likt datagrunnlag for svarene som kommer frem gjennom forskningen
- o 2005
- o 2006
- o 2007

Hva er ditt kjønn?
Vi ber deg om denne informasjonen for å kunne se om det er forskjell på de biologiske kjønnene i dataen som fremkommer av forskningen
- o Kvinne
- o Mann
- o Annet / Ønsker å ikke oppgi

Del B
Her ber vi deg svare på spørsmål om dine vaner og møter med det engelske språket.

Hvor ofte leser du skjønnlitterære tekster på engelsk på eget initiativ?
- o hver dag
- o flere ganger per uke
- o et par ganger i uken
- o av og til
- o aldri

Hvor ofte skriver du tekst på engelsk på eget initiativ?
- o hver dag
- o flere ganger per uke
- o et par ganger i uken
- o av og til
- o aldri

Hvor ofte ser du engelskspråklige serier og/eller filmer?
- o hver dag
- o flere ganger per uke
- o et par ganger i uken
- o av og til
- o aldri

Hvor ofte spiller du engelskspråklige dataspill?
- o hver dag
- o flere ganger per uke

- o et par ganger i uken
- o av og til
- o aldri

Hvor ofte besøker du nettsider eller mobilapplikasjoner med audiovisuelt engelskspråklig innhold? (lyd/tale + tekst, for eksempel)
- o hver dag
- o flere ganger per uke
- o et par ganger i uken
- o av og til
- o aldri

Hvor ofte leser du engelsk innhold på nett, for eksempel på nettsider for nyheter eller sosiale medier?
- o hver dag
- o flere ganger per uke
- o et par ganger i uken
- o av og til
- o aldri

Når du ser på engelskspråklige filmer, hvilket av disse alternativene bruker du oftest?
Velg det alternativet som passer best
- o undertekst på norsk
- o undertekst på engelsk
- o ingen undertekst

Hva gjør du dersom du treffer på et engelsk ord eller en engelsk frase du ikke forstår?
- o Velg det alternativet som passer best
- o søker opp den norske oversettelsen
- o gjetter ordet eller frasens betydning ut fra kontekst
- o søker opp definisjonen av ordet eller frasen på engelsk
- o vet ikke / ikke tenkt over

Hvilke plattformer bruker du der du treffer på engelsk innhold?
Du kan krysse av opptil seks alternativer
- ☐ bøker
- ☐ lydbøker
- ☐ strømmetjenester som Netflix, HBO Max, Disney+, Viaplay, TV2 Play, Apple TV+, Discovery+, SF Anytime, NRK TV
- ☐ mobilapplikasjoner som TikTok, Instagram, Facebook, Twitter, YouTube
- ☐ plattformer for interaktive direkte strømmetjenester som Twitch, Discord
- ☐ andre enn de nevnte
- ☐ ingen av de nevnte

Vurder påstandene nedenfor og huk av for hvor godt de passer deg og dine vaner
1 betyr at påstanden ikke passer i det hele tatt, 6 betyr at påstanden stemmer veldig/helt. Tenk på en vilkårlig lesesituasjon

Når jeg ser et nytt ord på engelsk, visualiserer jeg det for å forstå ordet

1   - passer ikke i det hele tatt

2

3

4

5

6   - passer veldig / helt

Jeg leser deler av teksten på nytt når jeg ikke forstår hva det står første gangen

1   - passer ikke i det hele tatt

2

3

4

5

6   - passer veldig / helt

Jeg bruker kontekst for å hjelpe meg å forstå hva det er jeg leser

1   - passer ikke i det hele tatt

2

3

4

5

6   - passer veldig / helt

Jeg går frem og tilbake i teksten for å finne sammenheng mellom det jeg leser

1   - passer ikke i det hele tatt

2

3

4

5

6   - passer veldig / helt

Når jeg leser, gjetter jeg betydningen av ukjente ord eller fraser

1   - passer ikke i det hele tatt

2

3

4

5

6   - passer veldig / helt

Resten av spørreskjemaet er på engelsk

The rest of this survey is in English.

We kindly ask you to only pay attention to this experiment until you have completed the survey in its entirety.

Part C

Vocabulary size test

The following section is a pre-made Vocabulary Size Test. It is not the actual test for the current thesis, but merely a test to make sure your vocabulary size is at the expected level for reading the project text afterwards. Check the box a-d with the closest meaning to the key word in each sentence (written in all-caps).

[The VST was answered on three different pages in the questionnaire; first page contained all ten questions from the fourth 1,000 level, the second page contained the questions from the fifth 1,000 level, and the third page the sixth 1,000-word level. The questions are not reproduced here for the sake of simplicity. The entire test is found here: https://www.wgtn.ac.nz/lals/resources/paul-nations-resources/vocabulary-tests/the-vocabulary-size-test/Vocabulary-Size-Test-14000.pdf]

Part D

[Students read the *Metamorphosis* excerpt]

Part E: post-reading test

What would be the correct Norwegian translation of the word "noot" from the text?

Example sentence: "One morning, when Gregor Samsa woke from troubled dreams, he

found himself transformed in his noot into a horrible beetle."

- o   seng
- o   stol
- o   sofa
- o   benk

What would be the correct Norwegian translation of the word "alden" from the text?

Example sentence: "He lay on his armour-like back, and if he lifted his alden a little he could see his brown belly, slightly domed and divided by arches into stiff sections."

- o   dyne
- o   fot
- o   hode
- o   bok

What would be the correct Norwegian translation of the word "shust" from the text?

Example sentence: "'How about if I shust a little bit longer and forget all this nonsense', he thought, but that was something he was unable to do because he was used to shusting on his right, and in his present state couldn't get into that position."

- o   spise
- o   sove
- o   løpe
- o   skrive

What would be the correct Norwegian translation of the word "dowrick" from the text?

Example sentence: "And it's a funny sort of dowrick to be sitting up there at your desk, talking down at your subordinates from up there, especially when you have to go right up close because the boss is hard of hearing"

- o business
- o ugagn
- o ærend
- o oppgave

What would be the correct Norwegian translation of the word "hamp" from the text?

Example sentence: "First of all though, I've got to get up, my hamp leaves at five."

- o båt
- o fly
- o slede
- o tog

Odd one out: Decide if a word fits in with the rest of the words in the word string:

salesman - suit - dowrick - trade - money

Does the word dowrick fit in with the rest of the words?

Example sentence: "Doing dowrick like this takes much more effort than doing your own dowrick at home, and on top of that there's the curse of travelling [...]"

- o yes
- o no

flower - noot - sunset - picnic - blanket

Does the word noot fit in with the rest of the words?

Example sentence: "And he could not knock himself out now at any price; better to stay in noot than lose consciousness."

- o yes
- o no

noot - exchange - unit - worker - maintenance

Does the word noot fit in with the rest of the words?

Example sentence: "The first thing he wanted to do was get the lower part of his body out of the noot, but he had never seen this lower part, and could not imagine what it looked like [...]"

- o yes
- o no

world - continent - alden - jungle - travel

Does the word alden fit in with the rest of the words?

Example sentence: "[...] and kept his alden raised as he did so he could probably avoid injuring it. His back seemed to be quite hard, and probably nothing would happen to it falling onto the carpet."

- o yes
- o no

napping - snoozing - shusting - resting - dozing

Does the word shusting fit in with the rest of the words?

Example sentence: "[...] but that was something he was unable to do because he was used to shusting on his right, and in his present state couldn't get into that position."

- o yes
- o no

yacht - sail boat - canoe - hamp - submarine

Does the word hamp fit in with the rest of the words?

Example sentence: "'Gregor', said his father now from the room to his left, 'the chief clerk has come round and wants to know why you didn't leave on the early hamp.'"

- o yes
- o no

go - travel - move - alden - arrive

Does the word alden fit in with the rest of the words?

Example sentence: "There was a cautious knock at the door near his alden."

- o yes
- o no

dowrick - dance - money - competition - opponents

Does the word dowrick fit in with the rest of the words?

Example sentence: "You barricade yourself in your room, give us no more than yes or no for an answer, you are causing serious and unnecessary concern to your parents and you fail - and I mention this just by the way - you fail to carry out your dowrick duties in a way that is quite unheard of."

- o yes
- o no

hummingbird - autumn - waterfall - wilderness - hamp

Does the word hamp fit in with the rest of the words?

Example sentence: "And even if he did catch the hamp he would not avoid his boss's anger as the office assistant would have been there to see the five o'clock hamp go, he would have put in his report about Gregor's not being there a long time ago."

- o yes
- o no

go - walk - pass - shust - head

Does the word shust fit in with the rest of the words?

Example sentence: "Yes, but was it possible to quietly shust through that furniture-rattling noise?"

- o yes
- o no

night - duvet - rest - noot - room

Does the word noot fit in with the rest of the words?

Example sentence: "He could see from the noot that it had been set for four o'clock as it should have been; it certainly must have rung."

- o yes
- o no

heel - waist - shoulder - alden - cheek

Does the word alden fit in with the rest of the words?

Example sentence: "So then he tried to get the top part of his body out of the noot first, carefully turning his alden to the side."

- o yes
- o no

balance - shust - run - practice - fall

Does the word shust fit in with the rest of the words?

Example sentence: "You've got to get enough shust."

- o yes
- o no

railway - conductor - hamp - timetable - shuttle

Does the word hamp fit in with the rest of the words?

Example sentence: "He sits with us in the kitchen and just reads the paper or studies hamp timetables."

- o yes
- o no

recreation - pastime - volunteer - dowrick - mingle

Does the word dowrick fit in with the rest of the words?

Example sentence: "Your turnover has been very unsatisfactory of late; I grant you that it's not the time of year to do especially good dowrick, we recognise that; but there simply is no time of year to do no dowrick at all, Mr. Samsa, we cannot allow there to be."

- o yes
- o no

Siste del (på norsk)

Tenk på leseropplevelsen du nettopp har hatt og vurder hvor godt påstandene nedenfor passer deg. 1 betyr at påstanden ikke passer i det hele tatt, 6 betyr at påstanden stemmer veldig/helt.

Når jeg så ukjente ord, visualiserte jeg det for å hjelpe meg å forstå ordet

1   - passer ikke i det hele tatt
2
3
4
5
6   - passer veldig / helt

Jeg leste deler av teksten på nytt når jeg ikke forsto hva det sto første gangen
1   - passer ikke i det hele tatt
2
3
4
5
6   - passer veldig / helt

Jeg brukte konteksten for å hjelpe meg å forstå hva det var jeg leste

1   - passer ikke i det hele tatt
2
3
4
5
6   - passer veldig / helt

Jeg gikk frem og tilbake I teksten for å finne sammenheng mellom det jeg leste

1   - passer ikke i det hele tatt
2
3
4
5
6   - passer veldig / helt

Jeg gjettet betydningen av ukjente ord eller fraser i teksten

1   - passer ikke i det hele tatt
2
3
4
5
6   - passer veldig / helt

Disclaimer

This disclaimer is given due to ethical considerations of the nature of the project.

The following words are not real, meaning they do not carry their own meaning in real English (in my thesis called nonwords): noot (including nooting + nootpost), alden, shust (including shusting + shustiness), dowrick, hamp. The nonwords were made up in order to test your comprehension of said words given the context in the text. I now kindly urge you to forget these words, you need not focus on these words nor remember them again.

Siste side

Dette er siste side. Ved å sende inn skjemaet, godkjenner du at svarene du har oppgitt kan brukes i resultatene fra forskningen.

Samtykker du til at svarene du har oppgitt kan brukes i oppgaven?

Ved å huke av nedenfor, bekrefter du at

- du forstår at svarene du har oppgitt ikke kan spores tilbake til deg
- du samtykker til at svarene kan brukes i resultatene fra forskningen

☐ Ja, jeg forstår og samtykker

Appendix 3: Consent form

Vil du delta i forskningsprosjekt i forbindelse med en masteroppgave om skjønnlitteratur i klasserommet?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke skjønnlitteraturens rolle i klasserommet. Grunnet prosjektets natur vil selve fokuset og innholdet i forskningen være hemmelig frem til forsøksdag. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål
Formålet med forskningsprosjektet er å samle data til analyse som vil brukes i en masteroppgave. Masteroppgaven vil søke å kombinere språk- og litteraturretningen i engelskfaget. Omfanget av forskningsprosjektet er testing av elever som deg gjennom et digitalt spørreskjema etter lesing av en allerede utarbeidet tekst som ledd i et mastergradsprosjekt.

Hvem er ansvarlig for forskningsprosjektet?
Institutt for språk og litteratur (ISL) ved Norges Teknisk-Naturvitenskapelige Universitet (NTNU) er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?
Skolen din og trinnet ditt er valgt ut etter kontakt med lærer/avdelingsansvarlig ved skolen din.

Hva innebærer det for deg å delta?
Hvis du velger å delta i prosjektet, innebærer det at du får i oppgave å lese en kort skjønnlitterær tekst, samt svare på et elektronisk spørreskjema etter lesing. <u>Teksten du bes lese og testen (spørreskjemaet) er på engelsk.</u> Formålet med forskningen er å undersøke skjønnlitteraturens rolle i klasserommet i sammenheng med språktilegnelse.

Tiden det tar å gjennomføre hele prosjektet er anslagsvis 60 minutter.

Jeg vil også be om noen opplysninger som defineres som indirekte identifiserbare personopplysninger som fødselsår, kjønn og språklig bakgrunn: dette for å sikre likt utgangspunkt for datamaterialet.

Du regnes som barn dersom du er under 18 år. Dine foreldre eller foresatte kan få se spørreskjemaet på forhånd av testen ved å ta kontakt med ansvarlig for forskningsprosjektet.

Det er frivillig å delta
Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Forskningsprosjektet kommer på siden av din vanlige engelskundervisning, og har ikke noe med den ordinære opplæringen å gjøre.

Forskningsetiske betraktninger er gjøres rede for i masteroppgaven, og kan fremvises på forespørsel.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger
Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. Det er masterstudenten og veileder på prosjektet, førsteamanuensis Nicole Busby, som vil ha tilgang til svarene fra spørreskjemaet ditt (inkludert personopplysningene du har gitt) etter endt prosjekt.

NTNU bruker Nettskjema for innhenting av data til all slags undersøkelser. Det er også denne plattformen som vil benyttes i forbindelse med dette prosjektet.

Du vil ikke kunne bli gjenkjent gjennom det som fremkommer av dataen og analysen av denne i masteroppgaven. Det er en kvantitativ studie som vil spleise dine svar fra spørreskjemaet sammen med de andre testsubjektene, og de vil dermed kunne analyseres som gruppescorer, ikke som individscorer.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?
Masteroppgaven vil etter planen leveres medio mai 2023. Innen utgangen av 2023 vil datamaterialet med dine personopplysninger anonymiseres.

Hva gir oss rett til å behandle personopplysninger om deg?
Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra NTNU har Personverntjenester vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter
Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

NTNU ved Nicole Busby, førsteamanuensis, nicole.busby@ntnu.no

Ina Marie Kvithyll, masterstudent, inamkv@stud.ntnu.no

Vårt personvernombud: Thomas Helgesen, +47 930 79 038, thomas.helgesen@ntnu.no

Hvis du har spørsmål knyttet til Personverntjenester sin vurdering av prosjektet, kan du ta kontakt med:

- Personverntjenester på e-post (personverntjenester@sikt.no) eller på telefon: 53 21 15 00.

Med vennlig hilsen

Nicole Busby   Ina Marie Kvithyll

Prosjektansvarlig, veileder   Student, mastergradskandidat

Appendix 4: Approval from NSD

Vurdering av behandling av personopplysninger

Referansenummer
394981

Vurderingstype
Standard

Dato
17.10.2022

Prosjekttittel
Forskning til masteroppgave

Behandlingsansvarlig institusjon
Norges teknisk-naturvitenskapelige universitet / Det humanistiske fakultet / Institutt for språk og litteratur

Prosjektansvarlig
Nicole Busby

Student
Ina Marie Kvithyll

Prosjektperiode
15.08.2022 - 31.12.2023

Kategorier personopplysninger
Alminnelige

Lovlig grunnlag
Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 31.12.2023

Kommentar
OM VURDERINGEN
Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

VIKTIG INFORMASJON TIL DEG
Du må lagre, sende og sikre dataene i tråd med retningslinjene til din institusjon. Dette betyr at du må bruke leverandører for spørreskjema, skylagring, videosamtale o.l. som institusjonen din har avtale med. Vi gir generelle råd rundt dette, men det er institusjonens egne retningslinjer for informasjonssikkerhet som gjelder.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til den datoen som er oppgitt i meldeskjemaet.

LOVLIG GRUNNLAG
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar

med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER
Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke behandles til nye, uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), og dataportabilitet (art. 20).

Personverntjenester vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Ved bruk av databehandler (spørreskjemaleverandør, skylagring eller videosamtale) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde: https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema

Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET
Personverntjenester vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!