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Using songs to acquire vocabulary

An investigation of how music can be used as a way to learn new words better

Master's thesis

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Master's thesis in Fag- og yrkesdidaktikk og lærerprofesjon - engelsk- og fremmedspråk
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Abstract

The purpose of this master thesis it to examine how music can enhance vocabulary acquisition in the English classroom. The research question of the thesis is "What are the benefits of singing songs in the EFL classroom for vocabulary acquisition?". In the theory section three main parts are in focus: vocabulary acquisition, music and language acquisition, and motivation as a factor for learning language.

The research design is a participatory case study, involving a 6th grade class divided into two groups in a Norwegian school. The project was conducted alternately in the two groups, one group was used as a test group, the other group as control group.

I was actively involved in the study as a teacher and observer. I performed the songs in the classroom as a singer and a guitar player. After every lesson I took notes of my observations. During four weeks, I presented four different English songs to the students, either with or without music. Every song text included six new English words. The students' vocabulary learning was tested after each week with the help of a C-test.

Furthermore, I conducted interviews with four pupils at the end of the study to get insight into how the children experienced learning vocabulary with music. The reason for using three methods in the data collection is that it seemed necessary to approach the problem from different angles, since triangulation can increase the study's validity.

The results of the participatory case study showed clearly that the students preferred learning English vocabulary through songs instead of learning English vocabulary while working with a "normal" text.

The results of the C-tests demonstrate that students exposed to new vocabulary through music could memorize new vocabulary better than students exposed to new vocabulary without music.

My own observations and the interviews with the children confirmed that they preferred to learn English vocabulary with music – learning a foreign language with music has a positive impact on the motivation and the ambiance in the classroom.

The conclusion of this thesis is that there are many benefits to using music in vocabulary acquisition. Teachers should be encouraged to use music in the classroom. However, more research needs to be done in the field.

Keywords: Second language learning, music, vocabulary acquisition, motivation

Sammendrag

Denne masteroppgavens formål er å undersøke hvordan musikk kan hjelpe ordlæringen i et klasserom i faget engelsk. Problemstillingen i denne oppgaven er «Hva er fordelene ved å synge sanger i et engelsk som andrespråk-klasserom for å lære nye ord?». I teoriseksjonen har tre hoveddeler fokus: ordlæring, musikk og språk tilegnelse, og motivasjon som en faktor for å lære språk.

Forskningsdesignet er en deltakende case studie som involverer en sjetteklasse som er delt i to grupper i en norsk skole. Prosjektet ble gjennomført ved å bruke annenhver metode i de to gruppene, der den ene gruppen fungerte som testgruppe, og den andre var kontrollgruppe.

Jeg var aktivt involvert i studien som lærer og observatør. Jeg fremførte sangene i klasserommet med sang og gitar. Etter hver gjennomføring tok jeg notater og skrev logg om mine observasjoner. I fire uker presenterte jeg fire forskjellige engelskspråklige sanger for elevene, enten med eller uten musikk. Hver sangtekst inneholdt seks nye engelske ord. Elevenes ordlæring ble testet etter hver uke ved hjelp av en C-test.

Videre gjennomførte jeg intervjuer med fire elever på slutten av studien for å få innsikt i hvordan elevene opplevde å lære ord med musikk. Grunnen til at det er brukt tre metoder i datainnsamlingen er for at det virket nødvendig å se oppgaven fra flere sider, siden en triangulær studie kan øke studiens validitet.

Resultatene fra den deltagende case studien viste tydelig at elevene foretrakk å lære ord ved å synge i stedet for å lære engelske ord ved å jobbe med en «vanlig» tekst.

Resultatene fra C-testen viste at elevene som ble eksponert for nye ord gjennom musikk kunne huske ordene bedre enn de som ble eksponert for nye ord uten musikk.

Mine egne observasjoner og intervjuene med elevene bekreftet at de foretrakk å lære engelsk ved hjelp av musikk – å lære engelsk ved hjelp av musikk har positiv effekt på elevers motivasjon og stemningen i klasserommet.

Konklusjonen i denne oppgaven er at det er mange fordeler ved å bruke musikk i ordinnlæringen. Lærere burde bli oppmuntret til å bruke musikk i klasserommet. Det bør dog bli utført flere studier på dette området.

Nøkkelord: Språklæring i engelsk, musikk, ordlæring, motivasjon

Preface

Writing this master's thesis has been quite the journey. It was written during the Covid-19 pandemic, which meant that all the time in the world was available to me as I was writing this. This, stangely enough, was not the case for me, and the process of finishing this was prolonged.

I have worked with this master's thesis for a long time now, and I can say that I finally got the theisis I wanted in the end. It has been a dream of mine to wite a master's thesis on the subject of English for a long time, and now it is finally finished! A goal that I have had for a long time has finally been reached. It feels really good to have finished this. Not that it was a task that I did not enjoy, I have enjoyed myself when writing this, but it feels good to have finished the work.

I have in no way been alone in working with this thesis. I would like to thank my family for having my back. A special thanks goes out to my mother who has helped the only way she knows how: nagging. Constant nagging about the thesis, always keeping it in the back of my head whatever chance she got. She was also a great support when things seemed lost.

I would also like to thank the teacher who gave me a wonderfull class to collect my data from, it helped me a lot. At the same time, I would like to thank my friend, who worked at that same school, for bothering to bring me along on the ever so fun bus rides to the school to collect data early in the morning.

The biggest thanks I can give goes out to my mentor and biggest supporter, Karen Bauer. She has been a huge part of this project, and has been involved by giving great advice, support, and helping me with my text in every step of the way. I can testify to her patience (which is at the level of a saint), her guidance, and her friendship. When things seemed lost and at its darkest, she kept her cool and helped me through it. Karen, thanks for your guidance, your patience, and all the laughs!

- Ole Robert Folladal

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1 Introduction

This thesis will explore the area of vocabulary learning, as an important part of learning a language is to have a sufficient vocabulary to suit the needs of the user. This thesis will investigate how vocabulary can be acquired using music and songs, as this is a part of language learning that is integral in a language learner's life. Students in Norwegian schools are consumers of media like many students around the world and many of these medias are in English. A form of media that students are consumers of is music, specifically music with English lyrics. This is a form of media that would be beneficial to investigate the educational properties of to utilize a form of media that the students already have integrated in their lives. To investigate vocabulary acquisition though music is important because it may lead to better English education in schools as well as a becoming a learning strategy that the learners can use by themselves in their English education. The reason for the interest in this area of second language acquisition is an interest in the field of English as a second language as well as a love for music and its educational properties. The combination of these two could have benefits for, and offer an alternative method of working with, English as a second language in Norwegian schools.

1.1 Research question

This thesis aims to investigate how working with vocabulary through music and songs can aid language learners to acquire vocabulary.

The research question for this thesis is **"What are the benefits of singing songs in the EFL classroom for vocabulary acquisition?".**

1.2 Earlier research

The field of researching the connection between music and language is not unresearched, as several scientific articles and studies have been published on this subject area. Mora (2000) discussed the possibilities of using music in language learning using the basal properties of music, such as melody and intonation. Israel (2013) investigated the motivational properties of music by researching how students responded to implementation of music in their language learning. The implications of this study were that a lack of interest in language learning turned around when music was used (Israel, 2013).

Research has been done that is more similar in focus to this thesis as well. A study where the research subjects were either subjected to spoken stimuli or sung stimuli showed that the groups who were subjected to the sung stimuli performed better in tests where their language acquisition was tested than the groups that were subjected to spoken stimuli (Schön et al., 2008). The same study points to the motivational properties that music have as well and suggests that using music in the early stages of learning a new language can prove beneficial (Schön et al., 2008). There are also studies that have investigated how music and vocabulary learning are connected. Robert Legg (2009) investigated how two English speaking groups would learn French words the best. This was done by having two groups memorizing new vocabulary through either working with

the new vocabulary through questions and talking about the words or they would learn a newly composed song using the words they were going to learn (Legg, 2009). The results of this study showed that the group who used music performed better on the following test (Legg, 2009). In inclusion, Legg emphasizes that more research should be done in this area, and this thesis will attempt to do so.

1.3 Overview of the thesis

The thesis will start with presenting relevant theory in the field of vocabulary acquisition, music and language acquisition, and motivation. The section concerning vocabulary acquisition will present theory that includes what areas of vocabulary acquisition should be prioritized, different ways of acquiring vocabulary, how learners can take control of their vocabulary learning, implicit and explicit learning, and incidental learning. The section on music and language acquisition will present theory on media exposure, ask questions like how music and vocabulary are connected, how music affects us in the early stages of our lives, how music affects the brain, and how music affects memory. The section on motivation will present principles for motivation in the English as a second language classroom, and the emotional properties of music.

The next chapter concerns the methods. This chapter starts with ethical considerations surrounding the study as well as a paragraph on the Covid-19 situation at the time of collecting data. A section on the participants follows. Then comes the methods of this study. The methods of this study are divided into three parts: participatory case study, C-tests, and interviews.

The next chapter presents the results. This chapter presents the results in turn, separating the methods. Following the chapter of results is the analysis chapter. This chapter analyses the results presented in the chapter before.

The sixth chapter is the discussion chapter. This chapter discusses the results considering the theory that was presented in the second chapter of this thesis. It follows a similar structure as the theory chapter.

Lastly comes the conclusion chapter, where a conclusion of the findings and the study will be presented. After the conclusion chapter follows references and appendix.

2 Theory

2.1 Structure

This chapter will present a theoretical framework for the thesis investigating the effects music has on vocabulary acquisition in a second language. To do so, this text will present theory on vocabulary acquisition on a fundamental level and on an advanced level, providing a theoretical framework on why the focus of the thesis is based around vocabulary acquisition. The text will later resume by investigating music as a way of enhancing vocabulary acquisition, which will be the primary focus of the thesis. Finally, this chapter will investigate some motivational aspects of second language acquisition.

2.2 Vocabulary acquisition

In order to successfully learn a second language, there are several linguistic subsystems of language that the learner needs to develop (Barcroft, 2004). Phonetics and phonology are subsystems based on the sound of a language, morphology is the study of words, their formation and structure, grammar is the structure of language, and pragmatics is context and usage in a language. Among these subsystems, there is the subsystem of vocabulary. Vocabulary is the amount of words an individual knows and can use. Vocabulary is an important part of successfully acquiring a second language due to the difficulties that may arise if the vocabulary is not sufficient in a given situation. Joe Barcroft (2004) explains the importance of vocabulary by explaining that a statement can be understood by the receiving part even though the grammar is not correct. However, should the vocabulary be wrong, the meaning of the sentence may become incomprehensible. Barcroft also highlights students' willingness to expand their vocabulary, attributing vocabulary acquisition as an important part of language learning and use of language, such as idiomatic phrases. Lastly, Barcroft points to the relationship vocabulary has with the other subsystems of language, particularly grammar. These three points forms an argument as to why vocabulary is important in second language acquisition (SLA).

2.2.1 What words should students learn?

There are several elements to vocabulary teaching, and it requires planning and goals to be considered effective. Webb and Nation suggest that the learners primarily should focus on high-frequency words in the initial stages of learning a second language (2018). High-frequency words are words that are encountered often and generally present in both spoken and written English, while low-frequency words are more specific and aims to fill a need for learners. A need in this case is a newly encountered word that the student needs to learn in order to understand the sentence it appears in. Nation found that the most frequent 2000 word families in the British National Corpus accounted for just over 89% of words in the Wellington Corpus of Spoken English, and the most frequent 3000 word families and knowledge of the proper nouns accounted for just over 96% of the words (Webb & Nation, 2018). The British National Corpus is a word list that contains 100.000.000 running words which has then been divided into word families and lemmas (Nation, 2004: 4). Nation compared three such lists and concluded that the BNC had the best overall coverage over words considering the relationship between academic

and non-academic words as well as the age of the BNC and the General Service List, which is an older word list (Nation, 2004: 12). The implication found in this is the importance of focusing on high-frequency words rather than low-frequency words. It does not diminish the value of learning low-frequency words, as this is also important, but it demonstrates that the high-frequency words should have priority, especially in early stages of second language acquisition (Webb & Nation, 2018). It is a matter of prioritizing the general rather than the specific. There exists other word lists for different purposes, such as the aforementioned General Service List, which is and older word list made for learners of English as a second language, and the Academic Word List, which is a word list that may be useful for learners that already know most of the high-frequency words (Nation, 2004; Webb & Nation, 2018). According to Webb and Nation, a study by Chung and Nation found that in an anatomy text, 30% of the words qualifies as technical items, which in this case means words that one may encounter often within that specific field but are considered low-frequency words outside said field (Webb & Nation, 2018). It is also useful to consider the involvement of the learners when using word lists. Having set goals for the leaners can prove to increase effectivity in their vocabulary learning.

2.2.2 Vocabulary knowledge

Full acquisition of new vocabulary takes time and planning to be effective in second language acquisition in school. There are several elements that needs to be given attention in order to acquire vocabulary fluency, and they need to be worked with both receptively and productively (Webb & Nation, 2018). Receptive vocabulary learning means learning the meaning of a second language word, and receptive vocabulary knowledge means having knowledge of the meaning of a second language word (Mondria & Wiersma, 2004). Productive vocabulary learning means learning to express a concept by means of a second language word, and productive vocabulary knowledge means being able to express a concept by means of a second language word (Mondria & Wiersma, 2004). The main difference between receptive and productive knowledge is that receptive knowledge is based on input without focusing on producing output, and productive knowledge is based on producing output. Receptive vocabulary knowledge typically focuses on learning from the second language to the first language, in this case learning from English to Norwegian, while productive vocabulary knowledge focuses on learning from the first language to the second language, in this case from Norwegian to English (Mondria & Wiersma, 2004).

To acquire vocabulary knowledge, there are several aspects of vocabulary learning to consider. These aspects can usually be divided into three categories, namely form, meaning, and use (Webb & Nation, 2018). The form of a word means how it is spoken, how it is written, and the distinction of word parts in the word (Webb & Nation, 2018). The meaning of a word refers to what meaning a word signals or expresses, what is included in the concept and what it refers to, and what other words the new word can be associated with and whether it is possible to use a different word in its place (Webb & Nation, 2018). Use of a new word refers to the grammatical functions of a word and the patterns which the word can be used in. Collocation must also be considered, as it means which words goes with the new word, for example in idiomatic phrases. Within the use of a word is also constraints on use of the new word. This can refer to whether it is a formal or informal word, or simply when it is appropriate to use this word. Constrains on use in a practical example is that one would say "This tea is strong" instead of "This tea is powerful", even though the words "strong" and "powerful" are similar in meaning (Webb & Nation, 2018). This definition of what vocabulary knowledge is appears similar to a

definition presented by Bjørke (2014). Bjørke divides vocabulary knowledge into four categories that contain many of the same aspects as Webb and Nations definition of what vocabulary knowledge means.

The first category is the form of the word, which means how the word is pronounced, how it sounds, and how it is written. Also, the opportunities for inflections the word have, and the word parts of the word go under this category (Bjørke, 2014).

The second category is semantic possibilities and limitations, an aspect that refers to the word's meaning in different contexts, metaphorical uses of the word, and what other words or types of words needs to be used with the word (Bjørke, 2014). An example to this would be how the subject to the word "eat" needs to be alive, it needs to be able to eat something. The sentence "The door ate a sandwich" is grammatically correct, but it is syntactically incorrect as doors cannot eat anything.

The third category is the use of a word, also called pragmatic knowledge. Pragmatic knowledge means how the word is used in different situations, such as if the word is formal or informal, whether the word has positive or negative associations to it, and the possibilities for collocations the word has, meaning in what combination of words the word appears in. Combination of words can refer to idioms and figure of speech.

2.2.3 Ways of learning vocabulary

After defining what vocabulary knowledge is, the next step is to find out how the teacher can aid the learners in acquiring said knowledge in second language acquisition. The teacher holds an important role in planning for vocabulary acquisition, and there are several factors present for effectively acquiring new vocabulary. Paul Nation offers a framework for effective vocabulary acquisition for teachers to use when aiding learners in acquiring vocabulary, and it consists of four strands (Webb & Nation, 2018). The four strands are meaning-focused input, meaning-focused output, language-focused learning, and fluency development.

The central part of meaning-focused input is to learn through listening and reading. The focus in this strand is to comprehend the material and find enjoyment in the material (Webb & Nation, 2018). The lexical demands should be at a minimum, as this strand is not supposed to be that challenging to the learner. Ca. 98% of the words in the material should be known by the learners, as this allows the learners to understand the text without assistance (Webb & Nation, 2018). This may leave learners in an ideal position to guess the meaning of a new word based on the context of the words. According to a study, many learners report that their preferred method of learning new words is to guess the meaning based on the context the word appears in (Qian, 2004). Through reading and listening to material the learners understand comfortably, the repetition of new words and several encounters of new words in context makes the acquisition of new vocabulary happen gradually (Webb & Nation, 2018). As well as learning new words, meaning-focused input may also have a positive effect in the form of deeper understanding of words the learners may already know by repeated encounters of the known words in original contexts (Webb & Nation, 2018).

The aim of meaning-focused output is to develop vocabulary knowledge by producing output using recently encountered unknown words in both speech and writing (Webb & Nation, 2018). This strand relies on the teacher creating original and meaningful tasks for the learners where the target words are the centre of focus, maybe even explicitly state what the target words are so the learners have to use them to produce text and speech (Webb & Nation, 2018).

Language-focused learning is the strand that is typically associated with vocabulary learning. The goal of this strand is to explicitly focus learners on learning new words as well as teaching strategies on how the learners can acquire new vocabulary (Webb & Nation, 2018). Words that are of high frequency should be lingered on and taught deliberately, while low-frequency words should quickly be given attention to and not be lingered on. If the low-frequency word is important in the context, the teacher may consider teaching the word in some aspects, typically the form and meaning of the word (Webb & Nation, 2018). Having the learners take control over their vocabulary learning is important in this strand, a there are too many low-frequency words for the teacher to tech on all of them. By giving the learners tools and strategies to acquire new vocabulary themselves, the learners are better suited for a situation where they encounter an unfamiliar word (Webb & Nation, 2018).

The fourth strand, fluency development, is to utilize known words in a native-like manner. This means that the learners should be comfortable with the vocabulary and able to use it in a meaningful situation fluently. Examples of tasks where fluency development is used are speed reading and speaking about a topic uninterrupted for a given amount of time (Webb & Nation, 2018). To develop vocabulary most effectively, learning should happen in all four strands. While all strands may prove effective in their own way, there are some aspects the learners will miss by not encountering new words in the other strands. An example of this is learning only through meaning-focused input and learning words through context in extensive reading. This will provide vocabulary knowledge to an extent, but the learners may miss the knowledge acquired by using the words themselves in other contexts, as in not being able to use the new words in original situations (Webb & Nation, 2018).

There are different approaches to how to acquire knowledge as well. Bjørke presents a taxonomy that divides the process into three processes: The process of understanding, the process of storing, and the retrieval process (Bjørke, 2014). Access to new words is the first step, and this happens by either listening or reading. The process of understanding starts when there is content attached to the new word, meaning it appearing in a sentence or a context (Bjørke, 2014). Learners can often understand new words based on context and thus understanding what the word means, like Qian reported (2004), but they can also figure out the meaning of a word by analysing word parts, comparing the word with similar words in other languages, or compensation strategies (Bjørke, 2014). Compensation strategies can be consulting a dictionary or asking a friend or a teacher. After the process of understanding is done, the process of storing the new word starts. The best way to store newly encountered words are by using the vocabulary knowledge the learners have on the new word in a new and meaningful context (Bjørke,

2014). It is therefore important that teachers give learners opportunities to use new words in spoken and written tasks. By doing this, the learners create new association networks that helps ease the process of retrieving the word when it is needed by the learner (Bjørke, 2014). These processes overlap each other, and it is possible for a word to be partially stored until it is completely stored.

Another aspect of vocabulary learning is memory. There are two kinds of memory when it comes to learning vocabulary: Short-term memory and long-term memory. The long-term memory serves as an inner encyclopaedia or dictionary where all the words that the learner knows are stored. The short-term memory, on the other hand, has limited capacity and can temporarily store newly encountered words and sentences. If the newly encountered word is in the learner's long-term memory, the learner can recognize it and continue to listen or read without difficulty (Bjørke, 2014). It is therefore important that as many words as possible are stored in the long-term memory, and therefore learners should be equipped with learning strategies that can aid them in storing words in the long-term memory so that they understand them the next time they encounter them receptively and even use them productively.

2.2.4 Leaners taking control of vocabulary learning

2.2.4.1 Cognitive and metacognitive strategies

Considering the strand language-focused learning, one of the most important parts of this strand is to teach learners to take control of their own learning. Even though the involvement of a teacher figure is important when learning a second language at primary and middle school, it is ultimately the learner that needs to do the learning. To help prepare learners for encountering and learning new vocabulary on their own, the teacher should teach the learners vocabulary acquisition skills and techniques. There are several ways of categorizing strategies for vocabulary learning. One way of categorizing strategies is to divide them into cognitive and metacognitive strategies (Bjørke, 2014). Repetition and memorizing are cognitive strategies that is based in repetition of new words mechanically by reading, pronouncing, and writing them. Contextualizing is a cognitive strategy where the learner uses the new words in new contexts. Contrasting and differentiating is a cognitive strategy where the learner compares languages, for example their second language and their first language, and comparing them to each other to find similarities and differences. Visualizing and association is a cognitive strategy where the learner associates new words with mental or real imagery as well as non-meaningful associations. Non-meaningful associations can mean rhyme, rhythm, and numbers amongst more. The final cognitive strategy is structuring, which is a strategy where the learner organizes words into word lists or mind maps (Bjørke, 2014). Metacognitive strategies are based on reflections on the vocabulary learning process. Organizing and planning of the learning process is a metacognitive strategy, and evaluation of the acquired knowledge and learning methods is a metacognitive strategy (Bjørke, 2014).

2.2.4.2 Eight principles

Nation goes even further in placing control of learners' own vocabulary acquisition in the learners' own hands(Nation, 1998). Nation list eight principles for language learners to take control of their vocabulary learning. These principles are organized under four

categories: Goals, content and sequencing, format and presentation, and monitoring and assessment (Nation, 1998).

Two of the eight principles are centred around goals of vocabulary learning. The first principle is that learners should know what vocabulary they should prioritize leaning, what vocabulary knowledge means, how to learn new vocabulary, how to use new vocabulary, and how to measure the extent to which a word has been learned. This principle is a generalization of most of the other principles, which is why it is set as a goal of vocabulary learning (Nation, 1998).

The second principle is that the learners should continue to increase their vocabulary size and by extension expand on the words that they already know. This principle is based on the results of vocabulary learning. The principle is to encourage learners to set their own goals concerning vocabulary learning, for example by setting goals for themselves for extensive reading or setting goals for themselves as to how many new words they should learn per week (Nation, 1998).

The next three principles centres around content and sequencing, meaning what should the learners focus on learning and how they prioritize learning. The third principle is that learners should use word frequency and personal need to determine what vocabulary should be learned (Nation, 1998). Earlier in this chapter, word frequency and word lists were discussed to determine what words should be focused on. Although these word lists are useful, they can be somewhat inaccessible to learners. There are, however, ways to develop and intuitive feel to what counts as high frequency. Nation refers to a study where English, French, German, and Spanish were compared to each other, and this study showed that there is a correspondence between the frequency levels of words that mean the same or refer to similar concepts (Nation, 1998). This means that if the learners means that a word in the learner's own language is a high-frequency word, then there is a possibility that the word is also a high-frequency word in the second language. There is a problem to this kind of intuitive language learning strategy, and that problem is synonyms such as "start", "begin", "commence". There is a general rule to this in English, and that is that shorter words tend to be more frequent than longer words (Nation, 1998). Also, words with Anglo-Saxon origins tend to be more frequent than the morphologically more complex words that originates from French, Latin, or Greek (Nation, 1998). Another way for learners to discover which words are high-frequency words is through reading. If the learners discover that the same words show up in their readings, it will indicate that this is a high-frequency word that they should focus on learning (Nation, 1998).

The fourth principle is that learners should be aware what it means to know a word, and they should be able to locate that information about the words (Nation, 1998). This also refers to something that has previously been discussed in this thesis, namely what vocabulary knowledge is. Learners should know that vocabulary knowledge consists of knowing the form, meaning, and use of the word and how to work receptively and productively to achieve vocabulary knowledge. If leaners are aware of these aspects of vocabulary knowledge, they can themselves use them to fully understand new vocabulary (Nation, 1998).

The fifth principle is that learners should be familiar with or know of the generalizable language systems that lie behind vocabulary use (Nation, 1998). Behind this principle lies that despite there being irregularities in language use, there are regular patterns that

can be used to both production and comprehension of language. An example of such patterns is concerning spelling. The silent *e* is something that occurs in the English language, and knowledge of this existing may prove beneficial for learners. The same goes with some words gain an additional consonant when written in the progressive form, such as *to spin – spinning* (Nation, 1998)*.* Building of words also have a pattern to them, for example through the use of affixes to create new words, for example *-able, -er, -less, -ly.* Collocation also has a degree of regularity to it that learners should be aware of. Seeing a word in a phrase may give the learners an indication of which word or context the new word usually goes together with (Nation, 1998).

The next two principles are on format and presentation, meaning how the learning should be done. The sixth principle is that learners should know how to make the most effective use of direct, decontextualized learning procedures (Nation, 1998). The following are some indicators that show how vocabulary learning strategies can be done effectively. It is important to retrieve rather than recognizing. Instead of writing the new word with its translation behind it, separate the two. This would force the learner to retrieve its translated form, and each retrieval will strengthen the connection between the form of the word and the meaning of the word. This does not occur if the word and its translated form appears together (Nation, 1998). The learners should use an appropriate number of words for their vocabulary learning. Initially, it is wise to start with small groups of words. If there are difficult words present, they should be placed in a small group of words to increase repetition and thoughtful processing of them. As acquiring new vocabulary becomes easier, the size of word groups can be expanded. The repetitions should be spaced. Instead of repeating the words for an hour, they should be repeated a few minutes after the introduction of them, then an hour after introduction, the next day, and even the next week. The same amount of time is spent on the word groups, but the repetitions are spaced over a week or so. This may result in longer lasting learning. The words should be processed thoughtfully. In the case of learning difficult words, the learners should set aside more time and apply more strategy to the words. This can be done by attaching keywords to the new words or placing the new word in language contexts and situational contexts. The more associations are made with new words, the better they will be remembered. Interference should be avoided. Interference here means words that are either spelled similarly or share similar meaning. The learners should avoid a serial learning effect, where the words are placed in the same order whenever they repeat the word groups. It is better to learn the words individually instead of remembering the order of the words. The learners should also use context when they can. This can be done by writing down collocations wherever this can be helpful (Nation, 1998).

The seventh principle is that vocabulary learning should be done in all four strands of effective vocabulary acquisition, namely meaning-focused input, meaning-focused output, language-focused learning, and fluency development. As these strands are complimentary to each other, the learners should use them all in their vocabulary acquisition (Nation, 1998).

The eighth and final principle concerns monitoring and assessment, meaning how the progress can be measured. Learners need way of monitoring their own learning, as it can sometimes be difficult to realize that they have made progress in their vocabulary acquisition. The learners' own monitoring can be used as an encouragement whenever they need it. One way of monitoring can be to keep a record of how many words have been learned. In the case of using word lists or word cards, saving them as a physical

testament of their own vocabulary acquisition can be helpful. The learners can also keep record of how long it takes to learn a certain number of words, for example how long it takes to learn 80% of a word group of 50 words (Nation, 1998). The learners may also make a list over situations where the new vocabulary can be applied. An example of a situation can be meeting new people, where the learners would have to greet the person, find topics to talk about such as the weather, and present themselves and their interests. Another way for learners to see their own progress is to go back to reading material they have already done. If the reading material was difficult to begin with, they might find it easier after learning new and relevant vocabulary upon revisiting the material.

2.2.5 Implicit and explicit learning

In second language acquisition, the terms implicit and explicit learning are often discussed, often in accordance with grammatical knowledge in a second language. Implicit learning is knowledge that is acquired based on the learning taking place naturally, simply, and without conscious actions from the learner and without conscious operations (Laufer & Hulstijn, 2001). Listening to English songs and watching films and series where they speak English can be an example of this. Explicit learning consists of a more conscious approach to learning where the learner makes assumptions and test hypotheses to discover structure (Laufer & Hulstijn, 2001). Acquiring knowledge can happen implicitly through a nonconscious and automatic structure that is discovered based on experience, or explicitly by selective learning through the learner finding information and building and testing hypotheses based on this (Laufer & Hulstijn, 2001). As communication between people is a factor of note, explicit learning can also happen via given rules, for example a teacher instructing learners on grammar rules. Attention to input is a necessity for explicit learning to happen, and it may be both necessary and sufficient for implicit learning to happen (Laufer & Hulstijn, 2001). Considering vocabulary learning, implicit learning is good for learners to discover perceptual aspects of new vocabulary, meaning that pronunciation and phonetical features are discovered through repetition and exposure of the word (Laufer & Hulstijn, 2001). For the learner to acquire knowledge on the meaning of a word, an explicit approach may be necessary due to this process requiring conscious processing at the semantic and conceptual levels and paying attention to the connection between form and meaning. There is a unification amongst cognitive psychologists in that memory performance is determined more by the activities the learner uses to memorize aspects of the word than it is determined by the learner's intent to learn new vocabulary (Laufer & Hulstijn, 2001).

2.2.6 Incidental learning

Similar, but not the same, there is a way of acquiring language knowledge called incidental learning. What separates incidental learning from implicit learning is that the learners do not know what they are learning, just that are learning something. Incidental learning means that the learners are performing tasks involving language acquisition, vocabulary acquisition for instance, where the learners are not told in advance what specifically they are to learn, or that they might be tested on a specific aspect of the activity after (Laufer & Hulstijn, 2001). In an intentional language-oriented activity, the learners are fully aware of the aspects they should focus on for an upcoming test of these aspects later (Laufer & Hulstijn, 2001). The conditions surrounding incidental learning allows for testing of the specific effect of information processing that a researcher would be interested in. One method of testing learners using an incidental design is to expose the learners to material without telling them to learn anything specific. This is called a Type I design, and it means that the learners are to perform a language-oriented task,

but they do not know that they will be tested afterwards (Laufer & Hulstijn, 2001). An example of such a test is to give the learners a list of words and asking them to correct spelling errors within the list. Although they corrected spelling errors in the activity, the test afterwards asks the learners to recall all the words from the word list. Another way of exploring incidental learning is to asks the learners to learn something specific, but they are not asked to learn what will be on a test afterwards (Laufer & Hulstijn, 2001). This is called a Type II design, and an example of this is that the learners are given reading material, and then asked to recall the contents of the text. The learners are not told in advance that what they are tested on are the unfamiliar words found in the test (Laufer & Hulstijn, 2001). A more general definition of incidental learning is that it is learning without the intent to learn. By using this more general definition of the term, the testing-aspect of the term is left out, and one can use incidental learning to learn vocabulary through extensive reading (Laufer & Hulstijn, 2001). The study in this thesis employs an incidental test design, where the learners are tested on vocabulary acquisition, but they are not aware of what words will be on the test.

2.3 Music and language acquisition

In the previous paragraphs, I have tried to justify the importance of vocabulary learning to learn a second language. These next paragraphs will investigate this further and more focused on music's effect on memory, music as a medium for acquiring language proficiency and more specifically vocabulary.

2.3.1 Media exposure

Media exposure is an important thing of note. Kuppens (2010) explains that in smaller countries, the exposure of foreign language media is an interesting factor due to the sheer quantity of it, because in these smaller areas or countries, media is rarely dubbed into the L1, but rather subtitled. Media technology is a current phenomenon due to the amount of it that is used in modern classrooms, but more interestingly, the amount of media that is being consumed outside the classroom. Kuppens refers to subtitled television as something that has a proven effect on L2 learners language proficiency, reinforcement of confidence in the L2, and it gives the learners appealing samples of authentic language inside as well as outside the classroom (Kuppens, 2010). Because of the amount of media in the L2 is as great as it is, the implications of the amounts of incidental language learning is potentially on par with intentional language learning set within a classroom.

There have been conducted studies on subtitled movies and the effect it has on language learners. Kuppens (2010) refers to a study where Dutch-speaking students were to watch a short film with either Spanish, Dutch, or absent audio. The groups who watched the L1-version dubbed with L2 subtitles, and vice versa, performed significantly better than the other groups in a test the test subjects took immediately after watching the short film.

Kuppens' own research shows an interesting trend that has great implications for this author's thesis, which aims to investigate vocabulary acquisition through music. As part of her research, she had 374 participants in the Belgian area of Flanders, which is the Dutch speaking part of Belgium, fill out a survey where the participants mapped their use of English television/movies, music, computer games, and websites. In this survey, more than 90% of the participants claim that they listen to music with English lyrics at least three times per week (Kuppens, 2010). This showed that music was by far the most popular English medium amongst the participants. This in turn makes the question of

how music can aid vocabulary acquisition that more interesting, having this survey backing up the amount second language learners are exposed to it. The amount of music with English lyrics would in part justify why the medium of music would be interesting to view in a second language-oriented thesis.

2.3.2 Music and vocabulary

Karen M. Ludke offers some insights in why music is an interesting tool for teaching and learning a second language. She refers to an experiment conducted in 2008 where the participants were exposed to a stream of nonsensical synthesised syllables, one group were presented with these syllables as spoken, the other group were presented with these as sung syllables. The group who was presented with the sung version of the synthesised syllables performed notably better when asked to recite the nonsense syllables into nonsense word. The implication for this experiment is that music has great potential in implicit learning of words (Ludke, 2009). She continues by offering five properties of songs that are particularly likely to support verbal learning. The first of the properties of songs that Ludke presents is the simple and predictable structure of songs. In this lies that the structure of songs often is predictable and simple, i.e., that a chorus follows a verse and vice versa. This is not exclusive to songs, as the same structure can be found in poems, however it is especially common in popular music. The second property is a symmetrical melody line. A symmetrical melody line would mean that if there is a rise in pitch, it will be followed by a fall, not continuing to rise indefinitely. The third property is that songs may have an end that naturally leads back to the beginning, such as a fast chorus leads back to a calmer verse and vice versa. The fourth property is the rhyming scheme within a song that may lead to recall. This property is particularly interesting in view of the thesis investigating vocabulary learning through music, where the rhyming scheme is a central part of memorizing words. The fifth property is that songs without an overwhelming amount of new vocabulary or grammar at once will be beneficial to learners in contrast to introducing a lot of new vocabulary (Ludke, 2009). Ludke explains that this is due to presenting too much new vocabulary can cause frustration and confusion among language learners.

2.3.3 Music in early stages of life

It is a fair assessment that music is an integral part of most people. Even though some may claim to not listen to music, hardly anyone can claim that they are not exposed to music. Erin McMullen and Jenny R. Saffran have considered language and music in tandem from a developmental perspective (2004). They explain that infants are susceptible to sounds and rhythms in utero, with swirling sounds and rhythmic expressions when they are still in the womb. This type of learning of language and music in tandem follow them through birth, where the sound of the mother's voice is preferred. Going further on this, the infant is able to distinguish language through phonemes, rhythm, and tone, and they are able to distinguish the mother's native tongue from other languages based on this. The "music" of infant-directed speech is also interesting to consider, as infant-directed speech is recognizable by the slower pace of speaking, higher fundamental frequency, a greater range of pitch variation, longer pauses, and repetitive intonation (McMullen & Saffran, 2004). On a basic level such as this, vowel sounds are also greatly exaggerated so that the infants can distinct different vowel sounds. This research shows that music is an integral part of humans' lives, and that music can aid in language acquisition by comparing the different sounds of the language. The relevance to this study is that it proves that language, melody, and rhythm are part of our understanding of language from early stages of life.

2.3.4 Language and music and the brain

2.3.4.1 Experiencing music
As stated above, music is an integral part of being human. Trimble and Hesdorffer (2017) reports that before there was language in the sense that we know of today, there was a musical language that is more reminiscent of music than of actual words with specific function. The Neanderthals used this musical language in an emotional way without words such as the ones that exists today, according to Trimble and Hesdorffer (2017). This precursor to modern language was driven by gesturing and had musical framing to it.

An important thing of note when considering the experience of music is that it is the right side of the brain that is more active (Trimble & Hesdorffer, 2017). Studies conducted using brain imaging have shown that when listening to music, it is the right hemisphere of the brain that is usually activated when one is listening to music in an emotional way (Trimble & Hesdorffer, 2017). Brain imaging has also shown that even imagining music makes parts of the right side of the brain activate. In traditional neuroscience, the functions of the right side (non-dominant) of the brain have been ignored to make way for research concerning the left side (dominant) of the brain (Trimble & Hesdorffer, 2017). This is due to the left hemisphere of the brain having a more important role in propositional language, and the interest of the more emotional aspects of language, such as intonation creating meaning and expression, has not gathered that much interest in comparison (Trimble & Hesdorffer, 2017).

When considering aspects of music, the emotional aspect of music is important. The connection between emotion and music has been accepted for some time. Plato considered that music played in different modes would arouse different emotions (Trimble & Hesdorffer, 2017). For instance, the difference between major and minor chords. Major chords are generally perceived to be more joyous than minor chords, which are perceived to be sad. The tempo of a song also affects how we perceive music emotionally, as fast music with a fast rhythm is generally perceived to be happier than slow music with a slow rhythm (Trimble & Hesdorffer, 2017). Traditionally, musical theorists focused their research on the grammatical and syntactical aspects of music, whereas the affective aspect of music has gained more attention in recent years (Trimble & Hesdorffer, 2017). Music can arouse feelings and associated physiological responses, which can be measured. The reason behind these feelings and physiological responses are harder to determine in the ordinary listener, as there may not be a direct link to the form and meaning of the music to trigger these responses (Trimble & Hesdorffer, 2017). There may be that the subjective content of the listeners mind is a factor.

2.3.4.2 Singing in the brain
The act of singing makes use of the entire brain. However, certain parts of the brain are more active when learning certain aspects of a song. In the case of learning the words of the song, the temporal region in the left side of the brain is more engaged. The left side is also where Broca's and Wernicke's areas are located (Trollinger, 2010). In the case of learning melody, the right side of the brain is more engaged (Trollinger, 2010). This division shows why the best way to learn a new song is to focus on the melody first

without paying attention to the words, as introducing the words alongside the melody might have a negative impact on the melody due to the differences in processing (Trollinger, 2010). Despite this, singing appears to have a positive effect on language development, speech, and comprehension. There is similar activity in the brain when reading out loud or singing. Trollinger (2010) reports on studies showing that boy singers that are highly musically trained had an advantage in their comprehension skills and skills concerning grammar. This study suggests either that singing may be a highly evolved skill that would be more complexly in the brain, or that singing is a fundamental skill that may exist before language learning, making singing work as a precursor to language learning (Trollinger, 2010). An activity that may be useful for learners to challenge the differences in processing melody and vocabulary, is to have them analyse tonal characteristics in an expressive meaning. For instance, the phrase "I am very sleepy today" can be said with meaning, even exaggerated meaning, to create a kind of recognizable melody. The learners can then try to melodically replicate the tonal characteristics of that phrase to create a song (Trollinger, 2010). This can also be done the opposite way, where the learners hear a melody expressing an emotion or verbal phrase and then guessing what the melody expresses through verbally writing a phrase or a story. These kinds of activities can move from verbal to musical representations, and it can be of help to develop pitch and melodic sensitivity among learners (Trollinger, 2010).

2.3.4.3 Language in the brain

Considering how language develops, all languages follow the same pattern of development, starting with babbling and nonsensical words and then moving on to form words and full sentences (Trollinger, 2010). Trollinger (2010) reports that brain imagery of infants and children show that when they are developing grammatical representations of language, Broca's area in the brain is more active. When infants and children are learning and categorizing vocabulary, Wernicke's area in the brain is more active (Trollinger, 2010). The relationship between Broca's area and Wernicke's area in these language aspects strengthens with training and practice to aid both comprehension and speech (Trollinger, 2010). It can be argued that this works similarly to how language is taught in school, where the learners are instructed on the form of a language, and then deposit the vocabulary as new words are learned, creating new possibilities for building sentences. This is similar as to how music is processed, in it that the more the learners hear a song, the more they will imprint the melody and words in the song in their memories.

Speaking several languages may help learners to better understand music, as there are indications that show that the brain maps all languages in an overlapping way in both Broca's area and Wernicke's area (Trollinger, 2010). In this process, the brain finds connections and similarities between the languages in both areas. Bilingualism also leaves the learner at advantage when learning languages with the same origin, such as Latin, Spanish, and Italian. As these languages share some fundamental similarities, it is easier for the brain to process a language with similar origins (Trollinger, 2010). It is the same with music in a way that if a learner has listened to a lot of music, processing new music may be easier. An exception to this, however, can be music from a different culture with different tonal melodies and rhythm than music from the learner's own culture (Trollinger, 2010), similarly to how different languages are processed as mentioned above.

The implication for how language is processed in the brain is that engaging musically with language learning can aid learners in developing language processing skills. Emphasis on words in a song or new vocabulary are strategies that seem to work well as for language acquisition, also second language acquisition. An example of how to work with music in language learning is the use of simple chants, where vocabulary is in focus during the chant, and then a melodic line in between the chants. If the learners engage with complicated melody lines, it may prove beneficial to learn the melody first using a neutral syllable to demonstrate how the melody goes before focusing on the words of the song. Learners can sing word lists, sections from a reading assignment, or poems in a recital style, adding melody to the text material. This may aid learners in developing comprehension, vocabulary, and grammatical understanding by engaging more areas of the brain (Trollinger, 2010).

2.3.5 Music, memory, and melody

2.3.5.1 Music and memory

Although the conditions of the brain as mentioned in the previous section suggests that it may be beneficial to use music alongside vocabulary learning, there are some elements concerning memory that may suggest otherwise, at least under certain conditions. The notion of music enhancing cognitive functions such as memory and verbal learning is widespread (Ferreri & Verga, 2016). There exists several studies and evidence that verbal memory may be boosted through music in studies conducted on patients with memory deficits, for example people with Alzheimer's disease (Ferreri & Verga, 2016). There are also studies that show this in patients with conditions that are not primarily impairing memory, such as stroke. The use of music in therapy is often justified because of music's positive effect on both mood and arousal, but also because it may find spared language activity in the right hemisphere of the brain should there be lesion in the left hemisphere, where the activity usually happens concerning language (Ferreri & Verga, 2016). Even though there are studies suggesting positive results of music to aid verbal memory, there are also studies that suggest the opposite. These conflicting views on music to aid verbal memory can be explained by there being a duality of operations in the brain, where the brain cannot focus on both verbal content and musical content at the same time, creating a dual-task situation (Ferreri & Verga, 2016). A dual-task situation may draw the focus away from the content that is to be learned, such as remembering or learning words. This might suggest that there is a delicate balance between conditions where music aids verbal memory using music, and conditions where the music is a distraction for verbal memory (Ferreri & Verga, 2016).

This raises the question of when does music boost verbal memory and learning, and when is it a hinderance, more specifically in sung versus spoken stimuli. The claim that sung stimuli may facilitate word and text learning is debatable due to there being studies showing that it does and that it does not. Sung stimuli can be used in two ways: Actively and passively. Using sung stimuli actively is when the learners sing the songs containing the information they are to learn. Using sung stimuli passively is when the learners listen to someone else singing the songs containing the information they are to learn (Ferreri & Verga, 2016). Children who are learning their first language use statistical properties in speech, both within words and at the word boundary, to hear and learn single words (Ferreri & Verga, 2016). This can be aided by music, as music may provide the child with cues to identify the boundary of words. It has been conducted research and experiments

on whether this applies to older learners or not. One such experiment challenged adult learners with hearing a continuous stream of trisyllabic pseudo-words in either sung or spoken form. The result of this experiment was that learners who were exposed to the sung form of the pseudo-words learned them better than the group that was exposed to the spoken form (Ferreri & Verga, 2016). Other than speech segmentation, there have also been research done on sung stimuli's effect on learners to investigate explicit learning. An example of this is a study which made learners hear word lists in either spoken or sung form to evaluate the impact of music on learning and memory (Ferreri & Verga, 2016). This study showed that there were no behavioural advantages for sung stimuli contra spoken stimuli for explicit learning of words. They did however find that there was increased activity in the brain, specifically parts of the brain that reportedly support learning, when exposed to sung stimuli. The implication of this is that the increased activity in the brain is caused by temporally structured learning templates that are provided by music (Ferreri & Verga, 2016). Research done on recall for explicit learning suggests that music can act as a mnemonic or learning device that provide a structured scaffolding for learning words. This type of scaffolding is interesting to consider in accordance with the study in this thesis. Another experiment using word lists to explore explicit learning added the modality of testing recall as well as learning (Ferreri & Verga, 2016). English speakers were presented with a sung or spoken word list and were tested afterwards. The study showed that there was no significant difference between the sung or spoken stimuli's effect on learning the word list, as they learned at an equal speed. The recall part of the test, however, showed that the English speakers who had been exposed to the sung word list performed better than those who had been exposed to the spoken word list, suggesting that the advantage of music in explicit learning may be long-term effect (Ferreri & Verga, 2016). These studies show that although the results indicate that music has a positive effect on verbal learning, the modalities that are tested is an important factor for research. Another study investigated several variables that are important in research in this field, for example the modality of learning put up against the modality of verbal recall, and the importance of melody and the presentation rate (Ferreri & Verga, 2016). The participants of the study were presented with paired associates in their first language and their second language in one out of three conditions. These conditions were speaking, rhythmic speaking, and singing. The research found out that singing was the most effective of the three conditions for learning, and the conclusion also suggested that the most important component of using music to enhance verbal learning may be the melody (Ferreri & Verga, 2016).

2.3.5.2 Music and melody

As a phenomenon, it seems that melody can cue the text of a song that an individual knows well. For instance, hearing the melody of a person's national anthem can make the person think of the lyrics of the song. It is the same with hearing an advertising jingle and can create recall to that company's slogan, even if it has been a long time since hearing said jingle (Wallace, 1994).

The underlying notion is that melody provide better recall than rhythm does alone. Like melody, rhythm can facilitate recall to an extent, but melody offer other cues as to what the text material is during recall (Wallace, 1994). Similarly, memory structures, such as meaning and rhyme, may create grounds for recall by linking components of the text together. In doing so, the textual components are constrained so that it is unlikely that the rhyming scheme is changed, preserving the characteristics of the text during recall.

Combining music and text may work similarly (Wallace, 1994). Melody can provide information about the features of the text and a direct connection between the melodic lines and the text. The connections made between melody and text are access points and cues to memory. The implication of this is that when an individual thinks about a certain part of a melodic line, the text that belong to the melodic line can be recalled parallelly (Wallace, 1994). The way this works is that when, for example, a learner recalls a melody, the learner then has a framework to place the accompanying text within, both number of syllables within a specific melodic line as well as the number of stressed syllables within the melodic line (Wallace, 1994). This would strengthen the argument for using music to acquire vocabulary, because it is an extra scaffolding for learning new words. In addition to this, there is sequential information to be found when using melody in recall, creating a set order of recall. The sequential recall makes it so that skipping over parts of the text is unlikely due to the melodic cues, at least not without the learner being aware that there is a missing portion of the text. There is also the aspect of sequencing due to the structure of songs and melodies. This means that although the learner is not able to recall a full text, the versal sequencing may aid the learner to start recalling from another melodic cue, such as a new verse (Wallace, 1994). For example, if a learner where to recall a long text, the recall might stop at some point without the learner having any cues to start reciting again. In a song, such cues are a natural part of the structure, enabling learners to start recalling again on the next verse of the song (Wallace, 1994).

Another advantage of using melody to aid text recall is the constraints a melody creates. In the case of a learner recalling text cannot recall a part of the text, there is a high probability that the missing parts of the recalled text can be reconstructed if it has a melody to it (Wallace, 1994). For example, if the learner is recalling a text such as "I'd go today to my _____ love", and the learner know the melody that goes with this line of text, then the learner can guess the word that is represented with a blank space (Wallace, 1994). The melody in this example, as used by Wallace (1994), has a set melody to it, and this melody dictates that there are few possibilities as to what might be missing. The reason for this is that the melody demands that the word that is missing has only one syllable. This constraint can aid the learner to find the missing word in this line, which in this case is the word "true" (Wallace, 1994). An important thing of note in this example is the fact that without the blank space, the line makes sense, and it is grammatically correct. There is no reason to add another word to this line, as the adjective that is in the original line is not necessary. This implies the accuracy aspect a melody adds to text recall versus spoken recall (Wallace, 1994).

Melody can be considered as additional piece of information when working with text recall. Because of this, there are some requirements for melodies to make them effective tools for recall. One such requirement is that the melody needs to be easily acquired. This requirement is important as to not create dual tasking within the brain, making the melody have a negative impact on the memorisation (Wallace, 1994). Despite this, the most important part of using melody to facilitate recall is not that the learners know the melody with perfect accuracy. The learner only needs to be familiar with the melodic form to cue the text, meaning that the learner needs enough melodic information so that they can constraint the line length, number of syllables, the sequence of the melody (for

example verse followed by chorus), and the rhythmic information from the melody for the melody to be an advantage as opposed to a distraction (Wallace, 1994). Experiments conducted by Wallace (1994) showed that the melody needs to be simple, but also that melodic lines need to be repeated to facilitate recall. In cases where the melodic lines do not repeat, there was less consistent recall among learners who used melody to facilitate recall (Wallace, 1994), implicating that simplicity and repetition are key factors for melody and music to aid in text recollection among learners.

2.4 Motivation

Motivation in learning is an important factor and a complicated concept, and it is important for understanding how learners can acquire knowledge the best. The concept of motivation within psychology tries to explain why humans behave and think the way they do, and motivation is of great importance in second language acquisition as well as other areas (Guilloteaux & Dörnyei, 2008). A typical explanation for the importance of motivation in the classroom is what causes success and failure in terms of learning. Motivation is the primary impetus when a learner initiates second language acquisition, and maybe more importantly, motivation is what sustains the learning process that can, for some learners, seem tedious and long (Guilloteaux & Dörnyei, 2008). A lack of motivation can make even the most remarkable students miss their long-term goals for learning. The abilities of the teacher and the quality of the curriculum is not sufficient for motivation on their own to achieve good results from the learner, as the motivation of the students need to be accounted for as well (Guilloteaux & Dörnyei, 2008). In second language acquisition, there were traditionally two ways of seeing motivation for learning a second language that were well-known, namely integrative and instrumental orientation towards second language acquisition (Dörnyei & Csizér, 1998). Integrative orientation refers to the learner's attitude towards the second language, meaning whether the learner sees the second language in a positive way or not. Integrative orientation also refers to the learner's desire to interact with and become like native speakers of the second language. Instrumental orientation refers to the practical rewards for learning a second language. Practical rewards can be work-related, such as getting a better job, or get an increase in salary based on the knowledge of the second language (Dörnyei & Csizér, 1998).

In the 90's, the research area of motivation for second language learners gained more interest. Researcher meant that the current discourse of second language motivation did not account for the classroom setting of learning a second language, and thus the researchers began investigating classroom related factors to second language motivation. Hypotheses began to appear that were based on situation-specific motives that were related to the classroom reality had more significance than researcher initially thought (Dörnyei & Csizér, 1998). A study found that the motivational dimensions for learners were integrative motivation, linguistic self-confidence, and the appraisal of the classroom environment (Dörnyei & Csizér, 1998). This means that the integrative orientation remains from the previous notions of motivation, but the two other dimensions made research on motivation for second language learners more centred around a classroom-oriented situation. These dimensions were later expanded to form four dimensions for motivational strategies.

2.4.1 Four main dimensions for motivational strategies

Motivational strategy is a concept that has gained traction in the discourse of motivation. Motivational strategies can be instructional interventions from the teacher to find and stimulate motivation among students, or self-regulating strategies used by learners to manage their own levels of motivation (Guilloteaux & Dörnyei, 2008). Although the self-regulating motivation among learners is an important aspect of motivational strategy, it is the instructional interventions from the teacher that this section will focus on.

Dörnyei (2008) provided a taxonomy to act as a theoretical framework for motivational strategies in the classroom. This taxonomy consists of four main dimensions for motivational strategies in second language acquisition. The first dimension is that the teacher needs to create basic motivational conditions. These basic motivational conditions consist of a good relationship between the teacher and the learners, creating an atmosphere in the classroom that is supportive and pleasant for the learners, and striving for the learner group to be cohesive and with the appropriate group norms. These are basic motivational conditions that need to be in place to ensure that the learners stay motivated (Guilloteaux & Dörnyei, 2008).

The second dimension is that the teacher needs to generate initial motivation. This means that the teacher needs to offer encouragement by using strategies such as increasing the learner's expectancy of success and promote positive attitudes towards second language acquisition in general. This will help to ensure that the learners start off motivated with achievable goals within the subject and willingness to achieve them (Guilloteaux & Dörnyei, 2008).

The third dimension is that the teacher needs to maintain and protect the motivation and the motivational environment. This can be done by promoting situation-specific tasks using stimulating, enjoyable, and relevant tasks. The teacher should focus the tasks on what the learners need to learn through tasks they find enjoyable. This may provide the learners with an increased chance of success, and by extension motivate the learner further. In addition, the teacher should create an environment in the learner group so that the learners can maintain a positive social image, as limited abilities in a second language classroom-situation can seem frightening for the learners (Guilloteaux & Dörnyei, 2008). Environment in this case refers to a classroom in which the students feel that it is safe to try and possible fail in front of their peers.

The fourth dimension is encouraging positive retrospective self-evaluation. This can be done by varying assessment criteria, providing the learner with effective and encouraging feedback on their efforts in the second language classroom, and offer the learners grades that will encourage them instead of demotivating them (Guilloteaux & Dörnyei, 2008).

2.4.2 Ten commandments for motivating language learners

Going beyond the four dimensions for motivational strategies, Dörnyei and Csizér (1998) offer a more extensive categorization of motivational strategies called the ten commandments for motivating language learners. The ten commandments for motivating language learners were formed by questionnaires given to 200 language teachers who ranked motivational strategies they have encountered while teaching English as a second language. These were then grouped together to create ten commandments for motivating language learners.

The first commandment is that the teacher should set a good example for the learners with their own behaviour. Influential people, or role models, can prove to be effective for learners to get motivated, and the teacher is the most prominent model in a classroom situation. The learners' interest and effort in the subject of English as a second language is modelled after the teacher's interest and effort, thusly making the teacher set a good example an important part of motivating learners (Dörnyei & Csizér, 1998).

The second commandment is to make the classroom a relaxing and pleasant place to learn. This commandment is important for learners' motivation due to the learning situation being an important factor concerning motivation. If the climate in the classroom is tense, it can negatively affect learners' motivation because of the student anxiety that may arise if the classroom seems tense to the learners, thus undermining the second language motivation (Dörnyei & Csizér, 1998).

The third commandment is that the teacher needs to present tasks properly. This commandment is important for the learners to have clear and achievable goals when being presented with a task. It is also helpful for learners to have effective learning strategies presented to them so that they can reach the goals of the task (Dörnyei & Csizér, 1998).

The fourth commandment is to develop a good relationship between the teacher and the learners. Learners might find additional motivation in trying to please the teacher if they have a good relationship (Dörnyei & Csizér, 1998).

The fifth commandment is to increase the learners' self-confidence in the second language. Self-confidence in a second language classroom situation is not directly determined by the learners' abilities, but their subjective assessment of their own skills in the second language. This is why a learner with limited vocabulary knowledge might be confident enough to use whatever vocabulary they know without considering their limitations, while a second language learner with extensive knowledge and vocabulary in the second language might shy away from situations where they have to use the second language. If self-confidence is increased amongst learners of a second language is increased, the learners might find oral tasks more motivating and enjoyable, and they can grow further as users of a second language (Dörnyei & Csizér, 1998).

The sixth commandment is to make language learning interesting. This is important because learners' subjective experience of a task is an important factor in relation to how motivated the learners are (Dörnyei & Csizér, 1998).

The seventh commandment is that the teacher should promote learner autonomy. This is related what Nation (1998) had to say about promoting learner autonomy. However, in this context, it is why learners should take control instead of how learners can take control. Learner autonomy can be motivating for second language learners due to the successes and failures they experience in acquiring second language can be attributed to themselves and their efforts and strategies. Autonomous language learners who control the efforts and strategies in acquiring a second language should be more motivated for this very reason (Dörnyei & Csizér, 1998).

The eight commandment is that the learning process should be personalized. In this lies that the second language course should be relevant to the learners on a personal level, meaning that the learners should be able to share and use personal information and thoughts in the second language. This may also aid in developing the language learner group and relations within the group (Dörnyei & Csizér, 1998).

The ninth commandment is that the learners should be oriented towards goals in second language acquisition. As mentioned above, goal orientations have traditionally been viewed as either integrative or instrumental, but the field of second language motivation have explored additional orientations of goals in second language acquisition since. The learners should be aware of their goals in the second language and thusly get motivated by their goals (Dörnyei & Csizér, 1998).

The tenth commandment is that the learners should be familiar with the target language culture. Words, sounds, grammatical principles, and other language related aspects are more than linguistic codes, as they are also part of a culture. This means that the learners' attitudes towards the culture of the target language will also influence their success in acquiring the language of that culture. To teach the target language through the culture of the target language would require the teacher to make the second language feel real for the learners. To do so, the teacher should provide authentic materials from the target language's culture, and even promoting contact with native speakers of the target language (Dörnyei & Csizér, 1998).

2.4.3 Music and emotions

A relatively unique trait of being human is to appreciate aesthetics and responding positively and sometimes pleasurably to stimuli that on an evolutionary basis have no value (Sachs et al., 2016). Responding emotionally to aesthetics offers nothing in relation to survival, for example. Aesthetic responses to arts functions in a similar way in the reward network to basic pleasures of the sensory kind, such as food, sex, and drugs, and thus may raise the dopamine levels of an individual (Sachs et al., 2016). Music is an aesthetic stimulus and can therefore evoke emotional responses.

The concept of emotion is difficult to define scientifically. One way to define emotion is that it is a representation of internal states that functions together with both physical and sensory feelings (Pishghadam et al., 2016). Earlier in this chapter, the relationship between music and memory were brought up. Emotions may function the same way in relation to both memory and perception, and it is relevant due to the consequences it may have in a classroom setting. Such academic emotions include enjoyment, pride, boredom, and hopelessness, and they can impact a learner's learning process, motivation, and performance. Academic emotions may refer to activating and deactivating emotions, and there are positive and negative emotions connected to these (Pishghadam et al., 2016). The positive emotions when engaging in an activity can be the activating emotion of enjoyment, with the deactivating emotion being relaxation. After said activity is completed and the outcome is to be considered, the learner may experience the activating emotions of joy, pride, hope, and gratitude, with the deactivating emotions being contentment and relief (Pishghadam et al., 2016). On the opposite side, negative emotions learners may feel can impact the learners negatively. During an activity, the learners may feel anger and frustration, with the deactivating emotion being boredom. After said activity is completed and the outcome is to be considered, the learners may feel anxiety, shame, and anger, with the deactivating emotions being sadness, disappointment, and hopelessness (Pishghadam et al., 2016). These negative emotions may hinder learning and demotivate learners, especially anxiety.

There have been studies that have suggested that the most common reason for experiencing music is to influence emotions, as music may be used to change emotions, release emotions cathartically, use music to reflect the current mood of the listener, to

be comforted by music, enjoyment, and use music as a stress reliever (Juslin & Västfjäll, 2008). An example of how music invokes emotions in an informal situation is how music is used in film and television, marketing, and therapy to enhance or change the way a person is feeling (Juslin & Västfjäll, 2008). To link together emotion, music, and memory, one can consider that music is closely related to emotions and that music activates the entire limbic system. The limbic system is involved in processing emotions as well as controlling memory, raising the question on the impact emotions in tandem with music has on memory and learning (Jäncke, 2008). When one listens to music that can be linked to the past, listeners might get the feeling of knowing the music due to remembering the melody. The melody works as a cue to remember the title of a musical piece, in contrast to remembering a song by only reading the title of the song (Jäncke, 2008). This may suggest that music is encoded semantically in memory similarly to how text is encoded in memory, even though music have been thought to be encoded by the perceptual memory system, the system that organizes information based on audio into melodies and rhythms. There is a possibility that musical information is related to emotional and semantic information, meaning associative memory, either directly or indirectly (Jäncke, 2008).

Music has an interesting property to it related to emotions, namely the ability to bring forth emotions on a group scale, such as in a classroom setting. The meaning of this is that music can be a social activity in which the participants of the music share the same emotions while listening and participating in the music (Koelsch, 2014). Attachment-related emotions brought by music can be related to the social functions that music has and in turn, social attachments are strengthened. Music, in social contexts, can mean participation in the musical activity, such as clapping along, dancing, or creating music by playing instruments (Koelsch, 2014). In such participation, the participants have a shared goal, joint attention, the same intent, the same actions, and they are joined emotionally. Music can evoke the thought of a joint "we", as music is the common denominator in a shared musical experience in which participants and listeners use their social cognition to recognize and interpret music in a communicative way and feel impulses to physically move to the music (Koelsch, 2014). Putting this under consideration may lead to the assumption that the emotions that are evoked when listening to music can be real and not exclusively subjective (Koelsch, 2014), although the experience of music may have some individuality to it.

As shown in the theory chapter above, there are a great deal of consideration when it comes to vocabulary acquisition as well as the inclusion of music to vocabulary acquisition. The next chapter will present the methods used in this study.

3 Methods

3.1 Structure

This chapter will list and discuss the methods used in this study. The first part will contain ethical considerations concerning collection of data, and considerations concerning the covid-19 pandemic and its impact on the study as an introductory part. Next, a presentation of the participants of this study. Later, the different methods used in this study will be presented, starting with the participatory case study and the execution of it. Then, the chapter will explain and discus the C-tests used in the study, and finally, the method of interview will be discussed as it appears in this study.

3.2 Ethical considerations

3.2.1 Ethics in research

Whenever data is collected for research, there are ethical concerns involved. There are ethical guidelines for researchers to follow when collecting data and conducting research which must be followed. Christoffersen and Johannessen (2012) summarizes these ethical concerns into three areas of consideration that the researcher must consider. Although these are general ethical considerations for conducting research, they are present within all forms of data collection, making them important for this study. The first area of consideration is the informant's right to autonomy and self-regulation in the setting of the research. A participant or informant who is asked to participate, participates, and have participated must have control of their own participation. This means that participants must give explicit consent to participate in the research project, and the participants must be able to withdraw their participation without discussion, pressure from the researcher, or negative consequences from the withdrawal from the research project (Christoffersen & Johannessen, 2012).

The second area of consideration is the researcher's duty to respect the participant's privacy. Participants must have the right to decide who they consent to participate with, and what information they will allow to be used in the research project. Participants have a right to deny researchers access to personal information about themselves, and the participants must be sure that private information remains confidential. The participants also need to be sure that the private information is not used in a way that can identify the participants. Private information means information that can identify the participants directly through name or social security number, or indirectly through a combination of information such as age, gender, and location. (Christoffersen & Johannessen, 2012).

The third area of consideration is the researcher's responsibility to ensure participant's safety. Although this is area of consideration is particularly important in medical research as in it that physical harm should not befall the participant, it is also applicable in other directions of research. For example, in a situation of an interview where the conversation is directed at sensitive and vulnerable subjects of discussion. If the well-being of the participant is at risk in such a situation, the researcher needs to make sure the participant will not be harmed because of the interview and the subject of discussion (Christoffersen & Johannessen, 2012).

There are constrictions on who can consent when private information is a factor in the research. In the process of consenting to participation in a research project, the participants must expressively consent to being part of the research project, they need to be aware of what it means to participate in the project, and they need to be aware of the people that have access to the data they provide in the project. If the participant is under the age of 18, parents or legal guardians are needed to consent on behalf of their child. If the project does not collect sensitive data from the participants, the participants can give consent themselves if they are 15 years old or older (Christoffersen & Johannessen, 2012). The participants in this study are underage and cannot formally consent on their own, which is why their parents or legal guardians have consented for them on their behalf.

Another ethical consideration when conducting a study like the one in this thesis is the group of students participating. In this study, the participants are between the ages of ten and eleven and are considered children. Children can be impressionable when presented with a new presence in the classroom as well as a new way of working with a subject they are familiar with, as it may be in this study. A strengthening factor to this is the researcher conducting the research. I conducted the research and gathered the data in person, and my presence may have had an impact on the outcome of the study. This may happen without intent, but the researcher's personality as a teacher figure may influence the students and therefore the result and data of the study. While collecting data and conducting the research, I was aware of this, and tried to adjust accordingly, meaning that I put in equal effort when working with the text musically as I did non-musically and stayed consistent in my approach and personality. Despite my best efforts concerning this, it is something to consider when reviewing the results of this study.

3.2.2 Ethical considerations in this study

To collect data for research purposes, research projects in several universities and research facilities need approval from Norsk samfunnsvitenskapelig datatjeneste (NSD). This service ensures that the consent is given properly and within the rights of the participants. The study in this thesis was approved by the NSD before the data collection started, and the statement of consent for the participants of this study have been generated based on information given to the NSD concerning this study (see **appendix A: Statement of consent)**. The statement of consent contains the information that the participants need to form an opinion on whether they want to participate or not. The statement of consent also informs the participants of their rights as participants and how the data will be handled. This study does not rely on private information, so the participants are identified by aliases that they created themselves. The only criterion for the selection of aliases is that it cannot be their own name. The reason for there being no need for private information is that the private information does not have any impact on the study, meaning that neither name nor gender are being factored in or studied in this study. The consistent use of aliases makes it possible to compare the results of individual students, and there is no need for private information for this. Even though no private information was collected, the participants are underage, so consent had to be given from their parents or legal guardians on behalf of the participants.

3.2.3 Covid-19

At the time of collecting data for the study, there was an active pandemic. The school where the data is collected was closed for a week during the data collection period, but the shutdown did not directly impact the data collection. The precautions were local

guidelines and rules from the city and the school's rules for Covid-19 management. I made sure to follow the guidelines of the school concerning the covid-19 situation. The covid-19 situation had an impact on the data collection in the form of participants staying home due to suspicion of infection, having an impact on the participation in the C-tests. To participate in the project with validity, each individual student had to be present for the singing or reading of the text one day as well as being present for the C-test the following week. At the time, if students had any symptoms whatsoever, they had to stay at home in case of there being a Covid-19 outbreak. The consequences this had for the study was that there were students who had to stay at home on the days of either the singing/reading of text or when they were supposed to take the C-test.

3.3 The participants

The participants of this study are students at an elementary school in a major city in Norway in the sixth grade. The students are ten-eleven years old. The criterion for the study is that the participants needed to be in middle school, as this group was at the time of the study. There were 25 pupils who participated in the study, and these pupils were divided into two groups, one group of twelve and one group of thirteen. The groups in this project were predetermined, as this division of the class is the same as they use in several other subjects in school, so the pupils were familiar with the groups beforehand. Both groups had a seemingly equal division of the genders within the groups. This means that the groups were not selected from a researcher's perspective, but as a practical solution from their teacher who knows the participants. Although the groups were not selected by me as the researcher, I do not believe this had any impact on the study. The project lasted for five weeks total, where they worked with song lyrics musically or non-musically in the first four weeks, and they took a C-test to a text the week after working on it. This means that the fifth week contained the final C-test as well as the interviews being conducted the fifth week. The two groups were subjected to the same text materials, varying only in the way they worked with the material. The groups alternated between working with the text in spoken form and sung form at a weekly basis. This was to ensure that potential differences in abilities in the second language in the two groups was not a factor in the results.

3.4 Methods

The methods used in this research project are participatory case study, C-test, and interview. The study is therefore a mixed method study, having both quantitative and qualitative methods in it. The project lasted for five weeks total. The participatory case study is the work the students did by reading the texts musically and non-musically in the classroom with me either reading or singing along with the students. The students were tested on the work they did with a C-test a week after they had done it. This means that the text they worked with in week one would have a C-test to it in week two. They also worked with a new text after the C-test in week two, which had a test to it in week three. In week five, they did the final c-test and four students participated in interviews. The schedule is shown in the table.

Week 1	Group 1 worked with a text musically
	Group 2 worked with a text non-musically
Week 2	C-test from the week 1-material
	Group 1 worked with a text non-musically
	Group 2 worked with a text musically
Week 3	C-test from the week 2-material
	Group 1 worked with a text musically
	Group 2 worked with a text non-musically
Week 4	C-test from the week 3-material
	Group 1 worked with a text non-musically
	Group 2 worked with a text musically
Week 5	C-test from the week 4-material
	Interviews

Table 1: Schedule

3.4.1 Participatory case study

One of the methods used in this thesis is a case study. A case study is a study in which a specific case is being researched (Christoffersen & Johannessen, 2012). The case that is being studied in this thesis is the use of music in a second language classroom to learn vocabulary. It is a participatory case study since I participated along with the students through leading the groups in the music and non-music sessions, and that there was a specific case that was being investigated. While leading and participating in the data collection I observed and how they appeared working with texts musically and non-musically. I met with the class some weeks before the project started. This was to familiarize myself with the class as well as the class being familiar with me. The first meeting also served the purpose of minimizing the "new-effect" the project may have had on the students, meaning that whatever they were presented with would be interesting because it is new. By meeting the class before the project started, I was a familiar presence instead of being new to them. The students were also introduced to the project both in person and written via the form of consent, so the students were aware that they were participating in a project. This creates the possibility of the Hawthorne effect, meaning that the outcome of the study may be influenced by the participants being aware that they are part of a study (Jones, 1992). To limit this effect, or even remove it altogether, the students were told not to focus on achievement, meaning that they were told that it was alright if they struggled to remember during the tests, as the project wanted to find out how much they remembered and not how well they did on the tests.

The sessions started by dividing the groups. The group who started their session was always the group that would be working with the text musically i.e., singing. The two groups took turns in being the group that would work with the text musically, meaning that the next week the other group would work with the text musically. This was done to minimize the factor of different abilities in the groups, and how it would affect the results of this study. The teacher who would usually teach them would take the other group in another room and do different non-related activities with them. I would sing along with the students and play guitar along with the students singing. I had brought an electric guitar and an amplifier to control the volume of my guitar playing. The reason for using the guitar was to help with the rhythm and have a melody to go along with the song. The

chords that were played were power chords due to their simplicity and how fast one can change the chord with ease. It is also, in my opinion, easier to sing along using power chords. The students would first be introduced to the song and given a handout containing the lyrics of the text (see **appendix B-E**). After handing them the lyrics, they listened to the original song played through a speaker. This was so they would get familiar with the melody and prepared to sing the song themselves. They then got the text translated verbally by me. The reason for the text being translated to them is that this ensured that the students understood the contents of the text. The students and I then sang the song. After the first cycle, the students would be asked to identify new or unfamiliar words in the text, searching the handout they got earlier. They would raise their hand and ask what a particular word meant, and then get the translation of the word. Then we would sing the song again. To give the students a break between singing, I would open for discussion on the themes of the song as well as providing them with context of the songs by discussing the time they were written and historic events that were happening at the time as well as trying to relate the contents of the song to the current time. For instance, for the song "The times they are a-changin'" by Bob Dylan I asked the class if anything had changed recently in their lives. The class brought up covid-19 as a change. I also provided trivia on the music and bands that we used in this project as a filler in between singing sessions. For instance, I told the class about the Beatles' significance in the history of rock and their position as pioneers in the genre. Another of trivia I provided was that "Good riddance (time of your life)" by Green Day was played in the very last episode of Seinfeld, a popular show in the 90's. Admittedly, the class was not familiar with the show, so that trivia was dated. We would sing the song four times, as this seemed like an appropriate amount so that the students were still enjoying themselves as well as it fit the time schedule.

After the group that had worked with the text musically was finished, the next group would come into the classroom. The way the text was approached was similar for the two groups save for some key differences between these sessions. The non-musical group was handed the same handout as the music group. Instead of being played the original song through a speaker, I read the text to them aloud as a poem. We then read the text aloud together as a poem without any music or melody. I did not play the guitar along with the reading. Otherwise, I approached the non-musical session the same way I did with the group who sang the text. The students were asked to identify new words, discuss the text, and get information about the song and related trivia. The words that both the groups identified were used in the c-test they did the next week. This gives the vocabulary selection an element of student participation, as they actively set their own terms for the tests they would later take. They were not, however, explicitly told that the new words they identified would be on the test.

3.4.1.1 Distancing the researcher
In qualitative methods, it is important to note the role of the researcher in the process. As an active part of the case study, this means I must consider my role and the experiences I bring with me to the project, as well as reflecting on the duality of participation so closely to the study while also being the conductor of it. This can be done through reflexivity (Patnaik, 2013). Introspective reflexivity involves being aware of the self by the researcher and understanding how the researcher's experiential location might influence the choice of subject, methodology and themes (Patnaik, 2013). Introspective reflexivity means that the researcher needs to attempt to bracket their biases and attitudes to minimise, or even prevent, their influence on the research

process (Patnaik, 2013). I have done so by keeping personal logs after each session with the group (see **appendix J-M**). I have deemed these logs to not be relevant to the study itself, but it was a useful method of distancing myself in the acquirement of knowledge in the study. I also practised introspective reflexivity by having discussions with the teacher of the class after each session to reflect on the session. This leads me to believe that I have sufficiently distanced my own biases and attitudes to the research project. Even so, as stated earlier, my role as a new teacher in the classroom, my personality, and methods may have had an impact on the students and the results, but I have taken measures to minimize this.

3.4.1.2 Selection of songs
The selection of songs has several factors and thought behind their inclusion in this study. The songs used in this study are "The times they are a-changin'" by Bob Dylan, "Let it be" by The Beatles, "Bad moon rising" by Creedence Clearwater Revival, and "Good riddance (Time of your life) by Green Day (see **appendix B-E**). The songs selected should have textual value, meaning that the lyrical contents of the song needed to have focus. The songs also needed simple melodical lines so they would be easier to remember and have an advantage on recall (Ludke, 2009). As I would provide music by playing the guitar along with the singing, the songs selected needed to have a simple chord progression. Another factor was that the songs needed to be new to the students yet have a sense of familiarity to them. This is the reason that the songs are old popular songs instead of new popular songs from contemporary hitlists. This is also the reason for the students not being involved in the selection of the songs despite several requests being made from the students.

3.4.2 C-tests
This study aims to research the impact music has on vocabulary learning, and to do so, the students needed to be tested on the vocabulary from the songs. They would be tested on their long-term memory to ensure that they had learned the words instead of testing their ability to recall the words right after working with the texts. The chosen method for testing was c-tests. The reason for using a C-test contra a glossary test where the students fill in the translation of a word was that it is better for remembering new words to separate the translation from the word (Nation, 1998) and thus focusing the test towards learning new vocabulary. The c-test is in this thesis a quantitative method that supplies this study with quantitative data.

The c-test came from another way of testing called the cloze test. A cloze test is a test where certain words have been deleted from a sentence, and the test taker must fill in the blank using contextual clues in the sentence (Ajideh & Mozaffarzadeh, 2012). Both the c-test and the cloze test make use of the reduced redundancy principle, which is the ability to compensate linguistically despite being presented with obstacles or interference e.g., in the form of missing words in a sentence or passage (Babaii & Ansary, 2001). A traditional cloze test will have every 5-10 words replaced with a blank space which the test taker fills in. the reason for it being 5-10 words is so that all word classes have a chance to be omitted for the test. The test takers can either fill in the words that were originally in the text, or they can fill in words of equal meaning. A c-test is closely related to the cloze test, but there are differences. The c-test removes ca. half the letters of the omitted words instead of the entire word. Instead of removing every 5-10 words, a c-test removes every other word, leaving half the original word to be filled in by the test taker (Ajideh & Mozaffarzadeh, 2012). The C-test and the cloze test have potential to measure

several things such as grammar, reading proficiency, and language proficiency. The C-test is, however, arguably the better choice for measuring vocabulary as the deletion rate is at word level instead of sentence level (Babaii & Ansary, 2001). It has been argued that C-test takers who find the sentence level challenging may mobilize vocabulary skills due to the deletion rate and the letters that remain of the words without using higher levels of language proficiency to complete the test (Babaii & Ansary, 2001), thus focusing the test on vocabulary alone.

In this thesis, the testing has been modified to suit the aim of the research. The testing format is c-test as explained above, but not with the traditional frequency of removed words. The c-tests in this thesis (see **appendix F-I**) removes only the words that the students are being tested on, and ca. the first three letters of the words remains so the students may fill in the original word instead of a word of equal meaning. Another reason for leaving some letters of the original words was to compensate for the high level and low frequency of the words, as the students would in some cases never have encountered some of the words before.

The students took the tests one week after they had been presented with the original text either by working with the texts musically or non-musically. They were tested one week after to test their long-term memory. They would take the c-test together, the whole class, before being split into the groups. One measurement that was taken to ensure that the students would not cheat or go out of their way to do achieve the best result possible by practising at home before the test, was that they got an explanation on why they were tested and what the aim of the testing was. They were told that it was important that they gave answers that they themselves could remember from the week before. They were not, however, told that they were restricted from finding the songs/texts in their spare time if they felt like listening or reading the material in their own time at their own will.

Each test had six words omitted from the original text. The texts were also edited in a way that removed excess choruses or verses that had not had any words removed from them. The reason for six words being deleted instead of the traditional deletion in C-tests of every other word is that it focuses the test on the specific words that the students have learned. Seeing as some of the words were of low frequency, the reduced number of deleted words was a compensation for this (Nation, 1998). The vocabulary selection from the texts were relatively small to aid in focusing and motivate the students, as too many words may have appeared demotivating and confusing (Ludke, 2009). The students did not have a time limit for taking the test, as they turned in the tests as they finished. The teacher who usually have classes with them at the time I was there helped oversee the students while they took the tests.

Week	Song	Vocabulary
2	"The times they are a-changin'" by Bob Dylan	- Roam - Drenched - Swimmin' (g) - Senators - Stalled - Rattled
3	"Let it be" by The Beatles	- Trouble - Darkness - Whisper - Parted - Cloudy - Wisdom
4	"Bad moon rising" by Creedence Clearwater Revival	- Earthquakes - Lightning - Bound - Hurricanes - Overflowing - Prepared
5	"Good riddance (Time of your life)" by Green Day	- Wrist - Directs - Lesson - Unpredictable - Frames - Memories

Table 2: Songs and vocabulary

3.4.3 Interview

In the fifth week, after the c-test, four individuals from the class were selected for an interview. The interviews were done separately, and two participants from each group were selected. The reason interview seemed appropriate as a method is to illuminate parts of the study that the observations and c-test could not and to give the participants an opportunity to share their experiences with the study.

The type of interview that was used in this study was structured interview. This seemed appropriate due the control the interviewer has during the interview and the possibility to compare answers from the participants. A structured interview is when the questions along with the order of the questions are set, but the interviewees are free to answer as they please without set answers (Christoffersen & Johannessen, 2012). The ability to answer freely is what separates this type of interview from a questionnaire with set answers. A structured interview is also relatively standardized compared to unstructured and semi structured interviews. Given the time set aside for the interviews, a structured interview appeared as the most effective and accurate way of interviewing the participants. No recording device was used during the interviews, but quotes were written down by hand as the interview progressed. This was done due to privacy concerns and to limit digital data as much as possible, instead relying on analogue data.

The selection of interviewees was random within some criterions for the selection. The interviewees had to be from different groups and be of both genders that was present in the class after my own and their teacher's knowledge, meaning four people were

selected, a boy and a girl from each group. They were interviewed separately and in turn. The interviewees were told before the start of the interview that they should answer truthfully and express their genuine opinion, and not answer based on what they thought I wanted to hear. This was done to limit the Hawthorne effect and to get genuine answers from the interview subjects. The interviews were conducted outside the classroom over a desk with chairs with a calm and quiet atmosphere. The interview subjects seemed calm and willing to participate in the interviews, and they were asked explicitly if they wanted to be interviewed along with permission from their parents or legal guardians' consent as collected in the statement of consent. The aliases used in the interviews are the same as the one they had when they took the c-tests.

The questions asked had a purpose to what they would illuminate (see **appendix N**). Perception of the study was something that the student could express their opinion on, as they could say whether they enjoyed the work with texts and the C-test or not as well as their thoughts on music and text in general. They would also be able to disclose how the project may have impacted them on a motivational basis through the questions. They would also be able to say something on vocabulary learning and language learning through the interviews. As music is an important part of this study, the interview subjects would also be asked to share their opinion and relationship with music. They would also get a chance to share reflections on the project and their experiences with working with text both musically as well as non-musically.

The coding process after the interviews were done with these illuminations in mind and colour coded thusly (see **appendix N**). The colour coding made it possible to quantify the data by comparing the number of statements that fell within the aforementioned categories. The idea behind coding and conducting the interviews is to uncover the subjective perspectives of the study that the subjective participatory case study or the objective c-tests cannot. The interviews give the study input from the participants and their subjective thoughts on the project.

4 Results

This chapter will present the results from the study. They will be presented as they appeared in the method chapter. The results will also be further discussed in the next chapter alongside relevant theory. The participatory case study that was done in the classroom will be presented first, followed by the C-tests and lastly, the results from the interviews will be presented.

4.1 Participatory case study

The results of the participatory case study will be based on subjective observations I made during the sessions, which makes it difficult not to write in a personal manner when presenting the results while presenting my observations as accurately as possible. The results from the participatory case study are based around the sessions in which the students participating and me sang and read texts together in the sessions that were explained in the method chapter. The reflection logs from the sessions (see **appendix J-M**) offers some insight in how the sessions went and what I did to distance myself from the study and avoid influencing the study through expectations and past experiences as possible.

The sessions in which the students either read the texts non-musically or sang the song with music were well liked by the students, according to my observations (see **appendix J-M**). They expressed that they were excited for the sessions, and that is the impression I got through the sessions as well. During the singing of the texts, the students were eager to participate and to be heard. My expectations for the music sessions were that the students would need to be encouraged to sing along, but they sang along from the start in all the sessions. They had sung together before and had a good classroom culture for singing, meaning they all participated and behaved appropriately during the singing sessions e.g., focused when it was time to sing and sang with appropriate volume.

The text will now progress in a manner that presents how the texts were performed chronologically with all four songs selected for this study. The first session where they sang "The times they are a-changin'" by Bob Dylan did not happen perfectly, as this was my first time playing the guitar while singing with them, and I played the wrong power chords in some parts of the song. While I initially believed that this would be a problem for the students, they were supportive and managed to find the right melody and timing for the wrong power chords to be a small error they easily moved on from. A problem that arose from this song was the original song that they were played before we sang the song ourselves. It can be argued that Bob Dylan does not have sufficient articulatory skills for a vocabulary focused study such as this one, and consequently, this song may have been harder than the other songs to sing the first singing cycle. The students quickly found the melody after singing it for themselves. The second session where the other group sang "Let it be" by The Beatles had no musical errors from my part to speak of, and it seemed as if the students liked this song a lot. Some of the students mentioned that this song was familiar to them and that they might have heard it before. "Bad moon rising" by Creedence Clearwater Revival had a clear theme in the vocabulary of the text, and the students picked up on this. This song is a relatively fast paced song compared to the other songs used in this study, and I believe this was a contributing factor to the

students enjoying this song. The students singing "Bad moon rising" was the same group that sang "The times they are a-changin'", and if they had difficulties with the former, the latter was a more enjoyable experience to sing, as the original song is more articulately comprehensible and easier to hear and learn the melody due to there being so few melody lines in this song. "Good riddance (time of your life)" by Green Day was more similar to "The times they are a-changin'" in that this song is fast paced in its original form with a lot of words being sung over a short period of time. They listened to the original song with the original pace. When we sang this song, I slowed down the pace a bit for them so that the students would have an easier time following the melody and sing the lyrics. A challenge that arose from this song was that this song has a high pitch at its highest and a low pitch at its lowest which is challenging to sing. I transposed to a higher pitch for the students so that it would be more manageable to sing it for them. This was at my own expense, as I had difficulties with the new tone I had set, so I had to sing it an octave lower than the students. The consequence for this was that some students followed my pitch which was a bit too low for them. I corrected myself at the cost of not singing as loud as I had thought to ensure I hit the highest notes along with the students. The students did not seem to have a problem with me not having the leading voice along them, as they sang along with me leading themselves collectively and by the accompaniment from the guitar.

In the reading sessions, the students remained positive to participation in the project. The students expressed that they would rather sing, and that they were curious as to how the original song sounded, as they were not shown the original song before reading the text. I had to assure the students several times that they would be singing the next week several times during the sessions. The groups who worked on the texts non-musically by reading them as poems did not have factors or margins for error as working with the texts musically had, such as errors in singing the melody and errors in accompaniment. I read the text in its entirety to the students before we read the text together, and the students sort of mimicked my tone pattern as I read, despite it being a non-musical reading. The tone pattern in question is for example going up one note at the end of a sentence to mark the end of the sentence. This was also done to avoid the reading to be monotonous and boring, but not adding actual melody to the reading. In between readings, as we did when working with the text musically, we had discussions about the lyrics in plenum in the class and I would tell them trivia, facts, and historical perspectives. These sessions worked as a breather for the students while keeping the session focused and relevant to the songs, and they were similar in both the reading groups and singing groups.

These were the results from the participatory case study, and they were based on my observations. The students were positive and eager to participate whether they would read or sing the texts, and it seemed like it was an enjoyable experience for the students.

4.2 C-tests

The results of the C-test are based on the tests that the students did one week after each session. The purpose of the C-tests is that it would show objectively how many words the students could remember after one week had passed. The results show how well the students performed on the tests and how many words they learned when they worked with the texts musically as well as non-musically. The total amount of words they had to fill in in each test was six words. The tables below show the results of the C-tests divided

by method, meaning that table 1 contains the results of the groups who worked with the texts musically and table 2 contains the results of the groups who worked with the texts non-musically. They measure the vocabulary acquisition of the students after one week have passed since they worked with the texts.

The times they are a-changin' – Bob Dylan	33/72 45.8% 12 participants
Let it be – The Beatles	40/54 74.1% 9 participants
Bad moon rising – Creedence Clearwater Revival	47/72 65.2% 12 participants
Good riddance (time of your life) – Green day	38/66 57.6% 11 participants

Table 3: Results from working with the texts musically by singing

The times they are a-changin' – Bob Dylan	32/66 48.4% 11 participants
Let it be – The Beatles	37/72 51.4% 12 participants
Bad moon rising – Creedence Clearwater Revival	34/48 70.8% 8 participants
Good riddance (time of your life) – Green day	33/72 45.8% 12 participants

Table 4: Results from working with the texts non-musically through reading

I created room for spelling errors when correcting the tests, as a misspelled word that is a clear attempt at writing the correct word was ruled as a correct answer. For example, incorrect spelling of the words "earthquake" and "unpredictable" where there was a clear attempt at writing these words were deemed to be correct in my grading of the tests. This was not the case when the word sounded the same but was a completely different word. An example of this was if the student wrote "road" instead of "roam", both of which are similar and have the same number of syllables but have different meanings. As the number of participants differ from one group to the other, the most accurate representation for comparison of the groups is percentage of correct answers the groups have.

The C-test does not show without any doubt which way of working with the texts was the best in terms of number of times each way had a higher percentage. The tests show that reading the text non-musically was the most effective way for the songs "The times they are a-changin'" and "Bad moon rising" and that working with the texts musically was the most effective way for the songs "Let it be" and "Good riddance (time of your life)". Coincidentally, because the groups alternated between singing and reading the texts non-musically, the same group seems to have performed the best in the C-test, gaining the highest percentage of correct answers. This could indicate that one of the groups had greater abilities in the subject of English, greater language skills, or were more proficient in taking standardized tests than the other group.

4.3 Interviews

The results from the interviews are based on the interviews sessions I had with a selection of the students from the groups participating in the project. The purpose of the interviews is that the students themselves may give insight in their experience with the project as well as highlighting aspects that the C-tests cannot. The interviews were held individually with me asking them questions from an interview guide (see **appendix N**). The questions aimed to highlight their enjoyment in working with the project, their motivation during the project, reflections based on the project and learning in general, their opinion and reflections around vocabulary learning, and the aspect of music in and outside the project. The interviews have been coded and can be found in the appendix (see **appendix N**).

The informants that were interviewed were selected based on the groups they were in and their gender. One boy and one girl from the two groups were interviewed, totalling in four interviews. In the transcripts, the informants appear with their selected aliases. The selection was done this way to ensure diversity among the informants and get a representative selection from the groups. As there were only four informants, they had to be representative to the rest based on which groups they were in and their gender, meaning that four different groups in the class were represented in the interviews, namely boys, girls, and the two groups that alternated between working with the text musically and non-musically. The informants that participated in the interviews are identified by standardized names such as to not disclose their identity and keep their privacy. The informants have been labelled Student 1, Student 2, Student 3, and Student 4. All the interviews were held separately and then put together for comparison and structure.

The questions that were discussed in the interviews aimed to highlight specific aspects. It should be noted, however, that some of the questions might have been leading in their formulation (see **appendix N**). This is apparent in the questions aiming to find out whether the informants have had fun or not, for example. The informants are asked if they have had fun, and the scripted follow-up question asks the informants to say what they thought was fun during the project. This formulation is problematic due to it not opening for the possibility that the informants did not find the project fun. It is also problematic seeing as I both lead the sessions with the singing and the reading as well as holding the interview with the students. This may lead to the informants feeling pressured to give the answer they believe I want to hear from them. The students were told before the interviews started that they should answer truthfully, but the formulation could have been more open than it was. Another question that may have been leading in its formulation is the question on what they thought of the tests and the texts. The base of the question is acceptable, but the scripted follow-up question steers the question in a direction when it asks if the informants thought they were difficult. The idea behind this follow-up question was to specify the meaning of the question and give the informant more information to base their answer on so that the interview did not consist of one syllable answers, but those follow-up questions could also have been formulated differently. Even though some of the questions were leading the informants to an extent, they gave answers that highlighted the aspects that the interviews aimed to highlight, as the students did well in answering the questions.

The results of the interviews show that the informants of the interviews have insight on all the aspects that the interviews tried to highlight, meaning that the informants can

reflect on the project they participated in, express their enjoyment and motivation, and they can express their thoughts on music and vocabulary learning. They have different experiences on some aspects, such as the difficulty of the texts and the tests. According to the interviews, they agree that singing felt like the best approach to learning new words as well as singing being the most fun approach to learning new words. In the final question where the informants are asked to make an estimate on which approach worked best for them when taking the tests, they have the same favourite option, but for different reasons. Two of the students express that they preferred singing because of the fun they had while doing it, making them motivated. The other two informants had reasons that were more related to vocabulary learning, as they used the melody to find the words, making singing their preferred approach as well. Some of the categories in which the interviews are coded from become closely related in some parts. In some cases, the informants express enjoyment, but their statement has been placed under motivation. This is in accordance with statements made that when something is fun or enjoyable, it becomes easier to learn.

5 Analysis

This chapter aims to analyse the results of the study. This will be done by first analysing the participatory case study, followed by the C-tests and then the interviews.

5.1 Participatory case study

The participatory case study is the part of the results surrounding the sessions in which the students either read or sang the material they were handed. The sessions where the students sang the material they were handed were exciting for the students as well as me. Based on my expectations and experience with singing in a classroom, I felt confident that the students would enjoy and benefit from singing together. I have not that much experience with playing an instrument while I sing in a classroom, however. This led to some power chords being played wrong and at an inappropriate rhythm, but as stated earlier, the students were understanding and quickly adapted. This might have disturbed the musical immersion for some students, as they would have to alter the rhythm of the melody to fit the unexpected pauses. The pauses were by no means long, but it was an interrupting element to the song. Despite this, my reflection on the matter is that this did not have a relevant impact on the singing, as I observed that the students were quick to adapt and found the melody and rhythm quickly (see **appendix J-M**).

The first song, "The times they are a-changin'", is not a contemporary song, but it is a song that is still played. As mentioned in the results chapter, it can be argued that the original singer, Bob Dylan, does not use modelling language and pronunciation in his performance of the song, as he has a distinct way of performing his music vocally. To model ones singing after the original might lead to an imitation rather than practicing one's own pronunciation. Therefore, it was important to not use playback while the students sang the song, but rather produce the music by ourselves. They were able to sing using their own language instead of imitating the original. This song was difficult for some to sing, as some mentioned in the interviews. The song has no clear chorus or repetition besides the one line that is repeated at the end of every verse. The first song of the study might have been better had it been a song with a more standard construction with a verse followed by a chorus that is repeated. Songs with a familiar construction was used in the other sessions, but this song stands out with its format. At the time of singing the song, the students did not seem to mind the format of the song, according to my observations.

The second song they sang was "Let it be" by The Beatles. This was a better experience for the students in terms of format, as the song consists of verses followed by choruses with the name of the song being repeated several times over in the song. As some said in the interviews, the song had a lot of repetition, which in turn would make the song easier to learn for the students. The same principle follows in the third song they sang, "Bad moon rising" by Creedence Clearwater Revival. This song has a familiar format with verses and choruses, and repetitions throughout the song. The students seemed to enjoy singing this song, based on my observations. It was fast paced and had exciting words in it such as "hurricanes", "thunder", and "lightning", which some students were familiar

with. This song also repeated the chorus a lot, in fact the song ends with the chorus appearing two times. The fourth song, "Good riddance (time of your life)" by Green Day, had a familiar format, as it had verses followed by choruses and melody lines that were repeated throughout the song. My observations, however, were that this was not as enjoyable and easy to sing as the second and third song they sang. This might have been because there was not as much repetition in this song as the others. It had a chorus that was repeated, but there was no phrase that was repeated in the verses. Also, this song had phrases that were unfamiliar to the students as well as words. The phrase "fork in the road" had to be explained to them despite their knowledge of the individual words in that phrase. This made this song stand out from the second and third song they sang.

The reading sessions that the groups had went well, based on my observations. The students may have lost their patience at the end of the sessions, as reading a text aloud without melody could have been experienced as frustrating, especially considering they read the texts several times during a short period of time. The goal was to read through the text with the reading group as many times as the singing group sang though the text. It seemed to me that working with the text four times was one too little for the singing group and one too many for the reading group. It was important to keep the frequency of reading and singing equal between the groups, however.

5.2 C-tests

The C-tests were the tests that the students took to check how many individual words they could remember one week after they had worked with the material. Six words were partially omitted from the handout they worked with either musically or non-musically, and the students were to fill in the rest of the words based on what they could remember from the week before. The table is once again presented below as it was earlier, with table 1 containing the results from the singing groups, and table 2 containing the results from the reading groups.

The times they are a-changin' – Bob Dylan	33/72 45.8% 12 participants
Let it be – The Beatles	40/54 74.1% 9 participants
Bad moon rising – Creedence Clearwater Revival	47/72 65.2% 12 participants
Good riddance (time of your life) – Green day	38/66 57.6% 11 participants

Table 5: Results from working with the texts musically by singing

The times they are a-changin' – Bob Dylan	32/66 48.4% 11 participants
Let it be – The Beatles	37/72 51.4% 12 participants
Bad moon rising – Creedence Clearwater Revival	34/48 70.8% 8 participants
Good riddance (time of your life) – Green day	33/72 45.8% 12 participants

Table 6: Results from working with the texts non-musically through reading

To see the difference between working with the texts musically vs non-musically considering the possible difference in the groups, it might be worth comparing percentage points. For "The times they are a-changin'", working with the text non-musically won by 2.6 percentage points. The other song who had better percentage than working with the text musically, namely "Bad moon rising", the difference between the ways of working with text are at 5.6 percentage points. As for the songs which the musical method worked better percentage wise, the difference between working with the text musically vs non-musically for the song "Let it be" are at 19.7 percentage points. For the song "Good riddance (time of your life)", the difference is at 11.8 percentage points. When viewing the percentage points of the C-test, working with the texts musically seems more effective than working with the texts non-musically as the difference in percentages are greater for the ones where the musical method had greater percentage.

The reason why the groups alternated between singing and reading was precisely to eliminate the possibility that there was a difference in ability in the subject of English, general language proficiency, and test-taking. The results of the C-test show the importance of this. It raises the question of how the tests would have appeared had the groups not alternated. If the groups had not alternated, the non-musical way of working with texts would have had higher percentage for all the songs, but with a close margin when considering percentage points, or the musical method of working with texts would have won with a grater difference in percentages. These claims are speculative but can be statistically proven by reviewing the data from the C-tests.

The difference in percentage points may prove that the result of singing the texts has the most promising results out of the two variables of singing the texts and reading the texts.

5.3 Interviews

The interviews were held after the final C-test had been taken. The students who were interviewed were asked if they wanted to be interviewed, and then they were brought individually to the location for he interviews. The location for the interviews were right outside their classroom where there were placed some chairs and a table. I noted their responses to my question manually with pen and paper. In the coded interview (see **appendix N**), the answers that the students gave to the interviews are located. The coding has been done by colour coding their answers and writing comments along their answers.

5.3.1 The questions

The first question in the interview was asked to get a good start of the interview. It felt natural to ask them what they thought of the sessions we had had, and if they wanted to share their experience with working with the texts like we had done. Student 1 and student 3 compared their experience with working from the book, like they would usually do in their English class, and they meant that it was better to work with texts like we had done in the sessions. Student 3 expands further on this that it was a different way of learning English than they were used to. Student 4 expressed that the experience was enjoyable despite having difficulties with understanding the texts and says that it would be easier if the songs had been more familiar.

The second question aimed to find out what the students thought on the texts themselves, with a follow up question of whether they were difficult. The students had different experiences with the texts. Despite the texts being difficult, most of them managed to sing along with the texts, and that it was fun to sing the texts. Student 1 said that the texts were not so difficult to sing once the melody was in place. Student 4 states that the texts were quite difficult, but the song "Let it be" was manageable due to the amount of repetition in that song. Student 2 say that the texts were alright, but "The times they are a-changin'" was difficult. Student 3 says that the texts were a bit hard, but they were fun to sing. Student 3 found that the individual words were hard, and not the texts.

The third question aimed to find out what the students though about the tests that they took, meaning the C-tests that followed every text they worked with. Student 1 and student 3 said that the tests were fine despite having some difficulties. Student 2 said that the tests went by alright and that most of the words were remembered, but student 2 did not seem confident of a full score in the answer that was given in the interview. Student 4 said that that the tests were difficult and that student 4 did not remember many words from the week before.

The fourth question was asked to find out whether the students had fun or not during the project. All the students who participated in the interview claim that they have had fun during the project. Student 1 said that the project was fun due to them not working from the book like they usually do. Student 2 said that it was fun because of the songs that we sang in the sessions, and it implies that the songs may have been new to student 2. Student 3 said it was fun because student 3 enjoys singing so much. Student 3 said that the entire project was fun, but the singing was the most fun. Student 4 said that the project was very fun. So fun, in fact, that student 4 claimed to almost die from laughter during the project. Student 4 also said that it was the singing of the texts that was the most fun.

The fifth question was asked to find out if the students had learned anything during the project. The students gave a variety of answers to this question. The desired learning outcome had not been discussed in detail with the students to an extent where the students may have given a perfect answer to this question, although they had been given the statement of consent handout earlier (see **appendix A**). Therefore, it was interesting to hear the students' reflections on what they had learned during the project. Student 1 said that learning words and new ways of writing sentences was this student's learning outcome from the project. Student 2 and student 3 said that they had learned new words during the project. Student 4 said that student 4 had learned to pronounce words better. Pronunciation as a learning outcome is interesting because it was not the explicit aim,

but another advantage to singing songs in language learning. Both learning new ways of writing sentences and learning to pronounce words better were not the learning outcomes that were in focus, but they are both legitimate outcomes to working with texts as they have in this project.

The sixth question asked if the students listen to a lot of music in their spare time. Student 1, student 3, and student 4 all said that they listen to a lot of music in their spare time, and they listen to various genres and artists. Student 2, however, claimed to not listen to music. This answer is interesting due to an earlier answer from student 2 where it was claimed that the project was fun because of the new songs that we sang. This implies that the student found enjoyment in singing the songs despite not listening to songs outside the project.

The seventh question asked the students if they had listened to any of the songs we sang or read during the project in their spare time. Student 1 and student 3 said that they had listened to "Let it be" in their spare time. Student 3 also said that student 3 had listened to the ones he sang during the project sounded. The students were never told that they were not allowed to listen to the songs outside the project, but they were not encouraged to listen to them either. It would have to be their decision to do so. Student 2 and student 4 said that they did not listen to ay of the songs outside the project.

The eight question was how they preferred to learn new words and what their preferred method of learning new words is. This question yielded interesting answers due to the students giving four different answers. Student 1 said that to learn words, the written form must be found out, and then how it is pronounced. After the form and pronunciation have been discovered, the words tend to stick automatically. Student 2 prefers to learn new words in the context of a sentence. Student 2 finds out meaning of new words by understanding a sentence that the new word appears in to find out the meaning of the new word. Student 3 uses repetition to learn new words. After hearing the words several times, often in songs but mostly through reading, student 3 learns new words. Student 4 said that traditional cramming/memorizing works best. After cramming and memorizing the new word, student 4 learns the new words by heart. All of the answers that the students gave to this question are legitimate ways of learning new vocabulary, many of which have been mentioned earlier in this thesis.

The ninth question was if the students would want to use songs to learn new words later. Student 1 and student 2 gave short answers that said that it could happen. Student 3 said maybe. Student 3 wanted to use a more internet-based approach using Google Translate in the future, but the project was a good experience for this student. Student 4 says that this approach to learning new words was a good fit for this student, and that this student would use favourite songs to discover and learn new words.

The tenth question asked the students to find out which approach worked best for them, as in if they thought singing the songs or reading the songs made them perform best on the C-tests. Student 1 said that it was best to sing due to it being more fun to sing. Student 1 expands on this by saying that when something is fun, it becomes easier to learn. Student 1 implies here that motivation through fun activities helps to learn. Student 2 said that singing songs worked best due to the melody being a helpful tool in finding the right words. The melody aids in remembering correct words. Student 3 said that during the test, this student would sing through the songs to find the right words, so the approach of singing the words worked best. Student 4 gives a similar answer that

student 1 gave, but student 4 said that singing is more enjoyable, thus making it more fun to learn.

5.3.2 Disclaimer to the interviews

After a revision of the questions asked in the interview, it can be claimed that some of these questions were leading in nature. The question of whether the texts and tests were difficult is leading them to answer yes to those questions. The intention from my side was that it would make the students give an honest answer of what they thought of the texts and tests. The second part of those questions (being whether the texts and tests were difficult) was meant to be a backup question in case the students did not understand how to answer the question, but every student got asked if they thought the texts and tests were difficult. It was never the intention that the students would be led into answering in accordance with expectations from the interviewer. The most leading question, however, was the question that aimed to find out whether they have had fun or not during the project. The question sounded as such *Did you have fun during the project? What was fun?"*, and in hindsight, this question leaves little room to critique the project in this aspect. It needs to be stated that the questions were meant to find out what the students experiences were with the project outside of the participatory case study and the C-test, that the interview could find out something the other methods could not. It was never the intention to lead the interview subjects to answers that were not truthful and answers that were their opinion entirely.

6 Discussion

This section will discuss the results from the study together with relevant theory from earlier in the thesis. The structure of this discussion will follow the structure of the theory chapter. This means that the discussion of the results will begin with the theoretical framework concerning vocabulary acquisition. The section that follows will discuss the results in light of theory concerning music and language acquisition. Then, the discussion will move over to the motivational aspect of language learning. The discussion will then surround the results and findings of the study and the implications the results may have on the area of teaching English as a second language.

6.1 Vocabulary acquisition

6.1.1 Selection of vocabulary

Webb and Nation suggested that for vocabulary acquisition in a second language setting is to be considered effective, high-frequency words should be prioritized (2018). The low-frequency words should gain focus after the high-frequency words have already been learned by the second language learners (Webb & Nation, 2018). This study has used words that the students themselves have chosen based on curiosity and filling a need, the need in this case being able to know the words in order to understand the whole sentence. The students read the text, or the text was read to them, and the students raised their hands to ask about words they did not understand. This might imply that the words that the students did not ask about were already known to the students, and it would therefore not serve the desired purpose to include already known words to the C-tests. Although words that they already know could have been used to test the students' abilities to remember words from a text, it would not sufficiently test their abilities to learn new words and remember them one week later, as this study touches upon. The students who participated in this study may be at a more advanced level than the high-frequency words that should have priority, which is why the selection of the words for the C-test seems justified in the sense that the selection of words might be subject- or area specific words that they might not encounter on an everyday basis, but would have use for if they should work with texts on those subjects and areas in the future. In the interviews (see **appendix N**), Student 3 says that there were some difficult words, but the texts themselves were not so difficult. This was the intended level of difficulty the texts and the tests were meant to have to the students. Student 4 says in the same question that the texts were difficult, and later says that she struggled with remembering words for the tests. Student 1 and Student 2 says that the texts were at a decent level without too much difficulty, although Student 1 says that it was a bit difficult to remember the words. The selection of informants for the interviews were intended to be representative to the entire class and the two groups. In the answers they gave in the interviews, it might suggest that the difficulty level was appropriate considering the possibility of the difference in skills in English as a second language amongst the class who participated in the project. Some would find the texts and test easier than other students who would have more difficulties with them, and those groups are represented in the interviews.

6.1.2 Vocabulary knowledge

This study investigates how music influences vocabulary learning and potential effects music may have on vocabulary learning. Therefore, it is important to acknowledge what vocabulary knowledge means and how the study touches on aspects of vocabulary knowledge. Vocabulary needs to be worked with both receptively and productively to acquire vocabulary knowledge most efficiently. In this study, the participants have for the most part worked with text and words receptively, meaning that most of the work done by the students have been focused on input. The vocabulary learning has been receptive in a way that the students have read and pronounced text and words without producing output themselves. They have worked with and learned from the texts from the second language, English, to their first language, Norwegian. The implication of a mostly receptive way of working with language is that the students have not had the optimal grounds for learning the words from the texts, as they did not get the opportunity to use the words in a meaningful way in contexts other than the ones they were presented in the texts. As they asked what the words meant, I did translate the words for them and gave them the meaning of the words in their first language. If the word was difficult to translate directly to the first language, I would offer a translation that was based on context and alternative meaning. For example, the word "bound" was difficult to give a direct translation of without offering different contexts to emphasize the meaning of the word. The full sentence went "It's *bound* to take your life", so I replaced the word with the Norwegian equivalent of "going to" and "destined". This would give the students a context other than the one presented in the text, implying that the students might be able to use the word in an appropriate context should they need to use that word in another setting.

There are several aspects to vocabulary knowledge and several ways to classify these aspects. Webb and Nation state that vocabulary knowledge is divided into three categories: form, meaning, and use (Webb & Nation, 2018). The participants of this study were presented with the text and from there told how the words were pronounced, and they could themselves take note of how the word was written. The form of the word was not dwelled on during the participatory case study, but the form was available to the participants. They pronounced the new words from the text in context either by singing the texts or reading them aloud together, meaning they had a model to follow for pronunciation. The meaning of the new words was given focus when asked what words were new to them, as it was important that the students knew what the words meant before moving on. By knowing the meaning of the words, they did not rely solely on context to understand the words, but rather had a translation and explanation to what the new word meant. They would get a more precise translation if it was difficult to translate the word directly, such as it were with the word "bound". The use of the new words was not a priority, other than seeing the new words in the context they appeared in in the text. The words' pragmatic uses were not given attention as it was not intended to dwell on the new words for too long other than ensuring that the students knew the meaning of the words. In between cycles of repetition, by talking about the meaning of the text, telling stories that were related to the texts' meaning, and putting the texts in historical or cultural context, the students were provided with context to the texts. Like with the song "The times they are a-changin'", the students were told of when it was written and challenged to think of things in our time that was changing. The students talked about how the Covid-19 situation had had an impact in their lives and how the current situation could still change to the way they were or even something better.

6.1.3 Ways of learning vocabulary

The framework of Paul Nation called the four strands of learning vocabulary (Webb & Nation, 2018), as presented in the theory chapter, are relevant to review in the discussion of the results. The first strand, meaning-focused input, is the strand where most of the vocabulary learning has happened in this study. In this strand, learning is done through listening and reading, and the goal is to comprehend and enjoy the material. In this study, motivation through enjoyment has been an important factor to consider and therefore has been given a lot of attention when working with the texts both musically and non-musically. As mentioned before, the selection of the words for the test were done by the students themselves, as they asked about the words that they did not know beforehand to discover their meaning. This means that the lexical demands of the participatory case study were low enough for the students to participate with relative ease, making it an enjoyable experience. This was also evident in the interviews, where the informants expressed that they have had fun during the project, especially with the singing part of the project. It should be noted that some of the informants said they thought the texts were difficult. As the students had words they did not know translated and explained to them, they were able to comfortably read or sing the text. The students sang or read the text together several times, making the students repeat the text several times in addition to the repetition in the texts in the form of choruses, for example. This would suggest that the students had relatively optimal conditions for learning new words through meaning-focused input.

The second strand, meaning-focused output, was not in focus during this project, as the students did not produce anything for themselves besides the contexts the new words appeared in. They did produce speech by reading or singing the text aloud, but the speech was not a product of the students' making, as they repeated what they were reading, not producing output on their own.

The third strand, language-focused learning, is a strand that were focused on during this project, as language-focused learning means to explicitly focusing on vocabulary learning. The students that participated in this study were told what the focus of the study was both from me personally at the start of the project, and they had access to the statement of consent where the project was described in written form. For those who had not paid attention to this initially, it became apparent when we worked with the texts, and they were asked to identify new words they did not know from before. Webb and Nation says that when deliberate vocabulary is the goal, it is best to linger on the high-frequency words and give quick attention to the low-frequency words (Webb & Nation, 2018). They also say that if the low-frequency words are important in the context, the students should learn the words in some aspects of vocabulary learning, namely form and meaning (Webb & Nation, 2018). This is what happened during this project, as the students needed to know the new words to progress in the text. These low-frequency words were also the words that were chosen for the C-tests, which gives them the context, but not the words in their entirety. Therefore, it was important to linger on the new words so that the students at least knew the form and meaning of the words.

The fourth strand, fluency development, did not have intentional focus. The students were not tested or instructed explicitly on the pronunciation of new words. However, the students were given the opportunity to develop their pronunciation by reading aloud or singing the text along with me who acted as a model for the pronunciation of the words. This might lead to a nativelike pronunciation, or at least make them lose accent or doubts concerning the new words. This does not imply that they were able to use the

words like a native speaker, but their pronunciation would be aided by working with the texts the way they did.

Optimally, learning should happen in all the four strands most effectively, but there is merit in working extensively in just a few of the strands as well. This project has primarily been meaning-focused input oriented, and the students have increased their abilities by working in the strands that they have. The cost of this is that the students have not been given the opportunity to use the new words in a productive manner by using the new words in new contexts and original situations. To work with texts in a productive way did not fit in with the aim of this study, so it has not been an area of focus for this reason. This study's goal is not to best teach students vocabulary, but rather look at different input strategies for learning new vocabulary, namely working with text musically and non-musically.

Bjørke's taxonomy of the process of learning vocabulary (2014) illuminates the process well considering this study's aim. This taxonomy consists of understanding, storing, and retrieving. The process of understanding happens when the students encounter new words. This happened when they were given handouts for the text they were going to work with at a given day and they identified new words in a context, which they were given translations for and explanation of meaning and partly the form. The process of storing happens when the learners use the new words in a new and meaningful context. The students were not given this opportunity, but they did repeat the new words several times in the context they first appeared in. The process of retrieving is something the learners do on their own, and the association network they have created for the words are in focus during this process. The students who participated in this study were given the context as it appeared in the text as well as additional context where this was deemed necessary. These associations might have been helpful when they would retrieve the words for the C-tests.

This study tests the participants ability to learn new words either by singing or reading text. The two types of memory, long-term and short-term memory, have different abilities in a vocabulary learning context. It can be argued that this study tests either long-term or short-term memory. As mentioned earlier, the participants of this study were not given the optimal conditions for learning new vocabulary, meaning that the strongest argument is for short-term memory, as the words were not lingered on and worked with productively enough to be fully considered to be in the participants long-term memory. It is the student's ability to retrieve the new words from their short-term memory when taking the C-tests that has been investigated. The students had a week between encountering and working with the text until they were tested in a C-test to see what they could remember from the week before.

6.1.4 Learners taking control of vocabulary learning

6.1.4.1 Cognitive and metacognitive strategies
Although the participants of this study did not have the explicit opportunity to take control of their own vocabulary learning, there are some aspects to this that are interesting to consider. Bjørke divided strategies for learners of a second language into cognitive and metacognitive strategies (2014). Repetition and memorizing are cognitive strategies that are based on repetition of new words mechanically by reading, pronouncing, and writing the words. In this project, the students repeated the target

words several times by reading them musically or non-musically repeatedly. By repeating the text by reading through them several times as well as the texts' already repetitious format, the participants of this study would have used the cognitive strategy of memorizing and repeating well. Student 3 said in the interview that hearing the words several times and hearing them in songs was that student's preferred method of learning new words, as is in accordance with Qian (2004) and Webb and Nation (2018). Contextualizing new words have partly been done in this study, as the new words always appeared in a context. The students did not, however, have the opportunity to use the new words in new contexts themselves. Contrasting and differentiating in language means that the students compare languages. The primary focus in this study was the participants' second language, but they were told the translation in their first language, giving them opportunity to contrast and differentiate for themselves. As mentioned before, they were given translations that were based on phrases in their first language to compensate for lack of a decent direct translation from the second language to the first language. Visualizing and association means that the learner associates new words with mental or real imagery and non-meaningful associations. The students were given historical and cultural context to the texts they read, giving the students some associative imagery to connect the words to. Non-meaningful associations refer to rhyme, rhythm, and numbers amongst other associations. The rhyme and rhythm aspects of these associations are the ones that are the most relevant in this case. The students, through working with the texts musically and non-musically, were both given rhyme and rhythm to associate the words to. As the texts were the same, the non-musical group did get the same rhymes as the musical group. The non-musical group read the text like a poem, which means that they also had a rhythm to the text, although the rhythm may not have been as pronounced as with the musical group. The musical group had a melody to associate the texts and words with as well, which may have been an important factor.

6.1.4.2 Eight principles

Nation's eight principles for learners to take control of their own vocabulary learning (1998) is also worth considering when discussing the results of the study. The first principle is a generalization of the other principles as mentioned in the theory chapter, so it makes sense to go straight to the second principle. The second principle is that learners should continue to expand their vocabulary and expand on words that they already know (Nation, 1998). This principle goes beyond this study, as the students continue with their vocabulary acquisition after the project is done. The students have, however, been given new words to expand on further which may aid them in an encounter with a new unfamiliar word. Student 2 said in the interviews that that student's preferred method of learning new words was by association and context. This may imply that Student 2 have gotten increased grounds for associative vocabulary learning in the future.

The third principle is that learners should use word frequency lists and personal need to determine what vocabulary they should learn (Nation, 1998). This study is more centred around personal need concerning vocabulary acquisition than frequency. The personal need in this study's case is the obstacle of an unfamiliar word standing in the way of understanding the entire sentence.

The fourth principle is that learners should know what it means to know a word, meaning they should have knowledge on the vocabulary they know. This means that form, meaning, and use are important language aspects that the learners should be aware of. In this study, meaning is the one aspect that has been given the most attention.

The fifth principle is that learners should know generalizable language systems that lie behind vocabulary use (Nation, 1998). Collocation is a part of this that may have been strengthened for the students during this project, as the new words appeared alongside other words in a sentence. As the students were given words in a set context, the students are familiar with at least one context in which the new word appears in, which can aid the students should they encounter a similar context in which they may use the new words, and it might give the students an idea of which words usually goes with the newly acquired vocabulary.

The sixth principle is that learners should know how to make the most effective use of direct, decontextualized learning procedures (Nation, 1998). In the theory chapter, there were listed indicators to how vocabulary learning strategies can be done effectively. Retrieval is more important than recognizing (Nation, 1998), so it is important to separate the word from the first language and the word from the second language. This creates a retrieval process that helps the student in their vocabulary learning. In this study that the students participated in, retrieval was an important factor, as the students were told the translation by me before moving on to the next words. This implies that the students had to retrieve the information in the form of the translation every time they encountered the word while we were working with the texts. For each retrieval, the connection between the form and the meaning of the words were strengthened, as the new word and its translated form did not appear together in writing. Among the indicators were also a limit to the number of words the leaners should focus on each time. Difficult words should be placed in a small group of words to increase repetition. The students who participated in the study were presented with six new words every week, which were repeated in context several times on the day we worked with the text the words appeared in. There is also mention of spacing of the repetitions (Nation, 1998). This means that there need to be some time in between repetitions. Spacing of the repetitions did not occur optimally, as the groups had four to five cycles of working with the text each week before being tested the next week, but there was a system to it that the students became familiar with. In working with difficult words, the words should be processed thoughtfully, meaning that there should be spent some time on the words and association work should be done along with working with words. In this project, the students have been given texts that functions as context for the words to appear in and they have been given rhyme and rhythm for both groups, as well as melody for the group who worked with texts musically. This means that the participants of the study have been given many associative tools for remembering the words. The learners should avoid serial learning effect, meaning that the words appear in the same order every repetition. Although they technically appeared in the same order every repetition in the project, they always appeared in the full text without the participants' explicit knowledge on what words they were meant to focus on.

The seventh principle is that vocabulary learning should be done in all four strands of effective vocabulary acquisition. This has been discussed further above.

The eight principle is that learners need to monitor their progress (Nation, 1998). The assessment of their vocabulary learning was shown in the C-tests. The participants of the study were not shown their results in the C-tests, so they do not know how they did. Student 1, Student 2, and Student 3 said in the interviews that they thought they did well on the tests, despite having some difficulties. Student 4 found the tests difficult because that student did not remember so any words. This implies that the students were to an extent aware of their own results in the C-tests despite not being presented with the results of the tests.

6.1.5 Implicit and explicit learning

Vocabulary learning happen either implicitly or explicitly, or even a mix between the two. In this study, the students learned vocabulary implicitly. There were no rules or structure that dictated that the students learned the words explicitly. The students were presented with text that they worked with either musically by singing or non-musically by reading the text like a poem. The students were aware of the aim of the study, but they were not aware of explicitly what they were going to learn. Implicit learning works well for learners to discover perceptual aspects of new vocabulary, such as pronunciation and phonetical features, through repetition and exposure to the new vocabulary (Laufer & Hulstijn, 2001). In this study, the students practiced their pronunciation through repeating the song in the cycles where they were either sung or read, meaning the implicit gain were great for the students participating in the study. Laufer and Hulstijn argues that there is a unification amongst cognitive psychologists in that concerning memory, the determinantal factor is the activity the learners use to memorize aspects of the words rather than the intent in which the learner acquires new vocabulary has (Laufer & Hulstijn, 2001). The implication this has towards this study is that the participatory case study is a fitting activity for remembering new vocabulary.

On the same note, incidental learning is learning that happens without the intention of learning. This study employs a sort of modified Type II design of incidental learning, as mentioned in the theory chapter, where the learners are given reading material and asked to remember the contents of the material without disclosing what they are supposed to learn. In this study, the students were told beforehand what they were going to learn, namely vocabulary. They were not told what words they were going to be tested on, but it became clear to the students that the words they asked about when they were working with the texts would appear on the test the next week. There was never any focus on learning the words by themselves, as they were always put in the context they appeared in the text. There were a few exceptions to this, because as mentioned before, the translation required different contexts and translations for the words to make sense to the students, for example if there was no good direct translation available for the word.

6.2 Music and language acquisition

6.2.1 Media exposure

In this study, the students were exposed to a form of media, namely music. According to my observations, the students seemed interested and invested in the media form of music, as they suggested contemporary songs that they liked that were in English for us to sing in the sessions. In Kuppens research (2010), were 374 participants filled out a survey where they mapped out their media habits, the results were that 90% of the participants claimed to listen to music with English lyrics at least three times a week. The students who participated in the study presented in this thesis did not do a survey to map their media habits, but it was part of the interviews. Three out of the four participants in the interview claimed that they listened to music in their spare time. The language of the music they listened to were not specifically asked for, but some of the answers implied that the language of the music was in English. Student 1 says that this student's preferred music is like the ones we sang in the project, which was in English. The mother of student 1 often listens to the radio channel P7 Klem, which is a radio channel that plays calm popular songs that are mostly in English. Student 2 said that that student does not listen to music that much in that student's spare time. Student 3

said that a Google-device played and decided music for that student. Student 4 said that the father listens to rock and that the mother listens to Miley Cyrus, and American artist that sings in English. Although it does not show the exact same results as Kuppens' research (2010), the tendency is similar despite the number of participants not being comparable.

6.2.2 Music and Vocabulary

Karen M. Ludke, as mentioned earlier in this thesis, offered five properties of songs that are particularly likely to support verbal learning (Ludke, 2009). The first one is that songs may have a simple and predictable structure. This has been discussed earlier in this thesis, but the songs used in this thesis have had structures that have been both simple and difficult. The observations I made during the sessions was that the songs with the simple structure led to more enjoyment and faster understanding of the song's structure. None of the songs used in this thesis had an unpredictable structure that was difficult to understand, but some were simpler than others. There was a difference in structure between "Let it be" by The Beatles and "The times they are a-changin'" by Bob Dylan, where "Let it be" was the song with the simplest structure, and "The times they are a-changin'" had a more difficult structure or format due to there being no defined chorus of the song like the others. The second property is that songs have a symmetrical melody line. The songs used in this thesis had symmetrical melody lines with rises and falls in pitches. This stood in contrast to the non-musical readings of the texts that were relatively monotonous except for some rises in pitch at the end of the sentences. The third property is that songs may have endings that lead back to the beginning naturally. This was the case in the songs used in this thesis, as the transitions from chorus to verse were easy to follow and vice versa. This was even the case with the song "The times they are a-changin'" by Bob Dylan, as the ending of the verses were clearly marked by a phrase and change in melody. The fourth property is that songs may have a rhyming scheme that leads to recall. The songs used in this project had rhymes in them, and they hopefully led to recall for the students when they took the C-tests. The fifth property is that songs without too much new vocabulary will be beneficial to learners in contrast to introducing many new words, as this might frustrate the learners. My observations on this matter were that the students seemed fine with the vocabulary introduced to them. They were asked to identify words that were unfamiliar to them, meaning that they contributed to the selection of the words used in the tests, and the number of words on the tests were six. This seemed like a manageable number of words for the students.

6.2.3 Language and music and the brain

Concerning the emotional aspect of music, the music used in this thesis is in a wide genre. Some of the songs have been fast paced while others have been slow paced. Trimble and Hesdorffer (2017) argued that slow paced music can be perceived differently than fast paced music, as well as minor and major chords can be perceived different emotionally. The songs that were used in this thesis were both fast paced and slow paced, so the students got different pacing of music in this study. The students did not, however, experience the differences between major and minor chords when we sang the songs. This is due to the kind of chords that were played alongside the singing by me. Power chords does not have the sound of a minor chord. All the chords they sang along to were major. This means that the songs they sang would be perceived as more joyous than if they had been played with minor chords. According to my observations, the students responded well to the fast pace of the song "Bad moon rising" by Creedence Clearwater Revival. It was a contrast to the songs they had sung before. The students

did respond well to the other songs as well, but the fast pace of "Bad moon rising" appeared clear to me during that session. "Let it be" by The Beatles was a more slow-paced song in comparison, but this song was also well received by the students, but maybe not for the same reasons. "Let it be" was, as far as I observed, perceived to be more of a beautiful song than a fun song to sing in comparison.

6.2.3.1 Singing in the brain

As mentioned in the theory chapter, the left side of the brain is active when learning words and the right side is active when learning melody (Trollinger, 2010). The students in this study worked with texts both musically through singing and non-musically by reading the text aloud. Trollinger reports that there is similar activity in the brain when singing and reading aloud, except the aspect of melody uses the other side of the brain as well (2010). Student 1 said in the interviews that after that student got a hold of the melody, the text did not seem so difficult. It was easy to sing the texts once the melody was in place. This is an example of a chronology that works well when using music to learn language, as it is wise to start with the melody before focusing on the words (Trollinger, 2010). When separating melody and words initially, there is no cross-task situation in the brain, and the melody might aid in the vocabulary acquisition later.

6.2.3.2 Language in the brain

Trollinger argued that learners of a language with the same origin as their first language may have an advantage, as the brain finds similarities between the languages (2010). Trollinger also argued that music from the same culture is processed similarly, as a learner who listens to a lot of music may have an advantage when using music later (2010). The music used in this thesis have been from different genres, but they have all been chosen due to their recognizability in popular music history and the idea of these songs not being uncommon to hear on the radio. Behind this lies that the songs used in this project share similarities musically and culturally. These songs may be processed similarly to other popular songs that are played on the radio today.

6.2.4 Music, memory, and melody

Ferreri and Verga (2016) stated that focusing on verbal content at the same time as musical content may lead to a dual tasking in the brain that may be against the desired outcome when using music to aid language learning. This why it is important to learn the melody of a song before learning the words when using music to learn language. In the study of this thesis, the groups who worked with the texts musically listened to the song once before singing it for this reason. Ferreri and Verga (2016) also reported of a study where they measured how quickly subjects learned new vocabulary through spoken and sung stimuli. The test showed that the speed in which they learned the new words were the same, but at the recollection part of the study, the group who had been exposed to the sung stimuli performed better than those who had been exposed to the word list in spoken form (Ferreri & Verga, 2016). The results of the study in this thesis supports this claim of better results during recall as well.

Wallace (1994) stated that melody can provide better recall than rhythm does on its own. This is due to several reasons such as structure, syllables, and sequencing of a song. The framework the participants of this study had when they were in the singing group may have aided them in the recall portion of the study when they took the C-tests. They would have a framework that would aid them in recognizing the number of syllables some of the partially missing words would have as well as sequencing ques in the form of

verse coming after chorus as well as melodic cues to aid them in recognizing the text. The groups who worked with the texts musically would not have a designated rhythm section to aid them with the help of rhythm of the song except the rhythmic strumming of the guitar, which in turn means that they had some form of rhythmic que to aid them in recalling the text, but the rhythmic ques were not as clear as it would have been if they had been aided with a designated rhythm section. The groups who worked with the texts non-musically through reading aloud did not have neither melodic nor rhythmic ques to aid them in the recollection of the words in the C-tests, which theoretically would put them at a disadvantage. The study in this thesis may support the claim that melodic cues could have been a significant aid in learning new vocabulary based on the results and the claims stated above.

6.3 Motivation

As stated in the theory chapter, motivation is an important part of any learning, and language learning is no exception to this. Guilloteaux and Dörnyei (2008) reports of four main dimensions for motivational strategies. The first dimension is that the teacher needs to create basic motivational conditions (Guilloteaux & Dörnyei, 2008). This can be attributed to the teacher that usually leads their English classes, but it was important for this study that the students felt that they were in an environment where they could sing and express themselves with their own voice, and that they were part of a collective when they sang. They did not have to stand in front of their classmates and sing alone, but they sang together. By emphasising this, a motivational atmosphere was created based on unity through singing. The same went with the groups who worked with the texts non-musically through reading, as they read together and not alone.

The second dimension is that that the teacher needs to generate initial motivation (Guilloteaux & Dörnyei, 2008). The students were throughout the project encouraged in their singing and reading, and based on my observations, it did not seem that any of the students felt unmotivated to participate in the reading or singing of the texts. There was little need for generating motivation in the students, as they always seemed motivated for the task before them. The groups who worked with the texts non-musically through reading needed a motivation in the form of an insurance that they would get to sing the next week, which seemed to work. An observation that was made during one of the sessions was that on reading group needed motivation in the form of a competitive spin on the reading. They wanted to be the best reading group by reading the text as loudly as they could without screaming the words. I encouraged them by saying that they needed to give it their all in the last cycle so that they would be the best reading group, which worked fine. This reading group wanted to read the text even more afterwards, but the constraints on the study suggested that they had read through the text enough times.

The third dimension is that the teacher needs to maintain and protect the motivation and the motivational environment (Guilloteaux & Dörnyei, 2008). This proved to be an easy task due to the willingness of the participants of this study. In this dimension lies that the students' social status needs to feel protected as well, and as mentioned earlier, this was done by focusing on the singing and the reading as tasks done in unison without anyone having to stand out. The students did not receive their C-test either so they could compare test scores with on another. This ensured that the students could remain anonymous as well as participate in the project.

Dörnyei and Csizér (1998) expands further on the previously mentioned four dimensions of motivational strategies with their ten commandments for motivating language learners. The first commandment is that the teacher should set a good example for the learners with their own behaviour (Dörnyei & Csizér, 1998). This commandment is part of the reason why it was important to have a participatory case study instead of a case study where I as the researcher participated alongside the students. I would count the students in as they were singing as well as leading them in the singing. I also read aloud together with the non-musical reading groups. Before we started the sessions, they were told to sing with the voice they had, and not be concerned about how their voice sounds. I would participate alongside them partially to set a good example for the students.

The second commandment is to make the classroom a relaxing and pleasant place to learn (Dörnyei & Csizér, 1998). This is beyond my control on a physical level, as this was not a class I would have regularly, but they would have a lot of space around them due to the class being split into two halves, with the other half doing other activities with their regular teacher. I strove to create a relaxed and safe environment for them to voice their opinions and express themselves musically through song as wel as a safe reading environment, however, as I have mentioned earlier.

The third commandment is that the teacher needs to present the task properly (Dörnyei & Csizér, 1998). The students were well informed of what the project was, as they had been informed some time before we started the sessions. I met with the class some time before the sessions started to meet them and explain what the project would be about. The goal for them was to sing or read a text together with their classmates, which they were aware of as the sessions started. They were also informed that they only needed to do their best on the C-tests and not be concerned if the answers were correct or not. They were explicitly told that all I wanted for them in the C-tests was that they would give it their best try. They were also familiar with the format of the C-tests.

The fourth commandment is that the teacher should develop a good relationship with the learners (Dörnyei & Csizér, 1998). In the time we spent together, we developed a good relationship. They were curious of the texts they were handed out, and it was possible to have a classroom conversation with them and me, both the musical and the non-musical group. As mentioned before, I had met the class before the project started and spend an hour and a half with them while they had a regular English session with their usual English teacher. This was to strengthen the relationship between myself as a researcher and the participants of the project.

The fifth commandment is to increase the learners' self-confidence in the second language (Dörnyei & Csizér, 1998). I hope, and got the impression of, that the class participated well in the sessions that we had together and that the sessions increased their self-confidence. This thesis does not aim to measure confidence, and I also do not have knowledge of their confidence from before the project started, but the nature of the activities left room for an increase in confidence due to the activities being based around groups and unity through a shared goal of performing the text, be it musically or non-musically.

The sixth commandment is to make language learning interesting (Dörnyei & Csizér, 1998). This is something that was achieved by varying the activities the students did from what they would usually do in their English class. Student 1 and student 3 said in the interviews that it was fun because they did not have to work from their English book,

which implies that they found the activity to be more interesting than what they usually do.

The seventh commandment is that the teacher should promote learner autonomy (Dörnyei & Csizér, 1998). The previous statements have focused on the unifying nature of the activities and methods used in this study. The C-tests provided some form of autonomy for the students due to the tests being individual tasks, but how they acquired the language was a unifying activity. They got to try themselves at doing an individual task, which might have provided them with autonomy that they needed to stay motivated for the project. Student 3 said about the tests in the interviews that a good rule of thumb is that one must pay attention to the text. This may imply that this student felt that it was this student's responsibility to learn the words to perform well on the tests.

The eighth commandment is that the learning process should be personalized. This commandment was not followed properly in this project, as the participants of the study did not have the opportunity to choose the texts that we used in the project. The students were encouraged to share their opinions and thoughts on the themes of the song as well as the song itself, but the personalization stops at that.

The ninth commandment is that the learners should be oriented towards goals in the second language acquisition (Dörnyei & Csizér, 1998). The students were told of the intention of the study before as well as during the project. However, in the interviews, the interviewees claimed they had learned different things during the project, namely that they had learned new words, learned new ways of writing sentences, and learned to pronounce sords better. This implies that the students were oriented towards goals in the second language, albeit different ones than explicitly intended as well as the intended goals of the study.

The tenth commandment is that the learners should be familiar with the target language culture (Dörnyei & Csizér, 1998). There was not an explicit focus on the culture during these sessions, but the students were provided with cultural contexts in between cycles in the sessions, where we talked about themes of the song and placed the song in a cultural and historical context.

6.4 Music and emotions

In the theory chapter, there was mention of the emotional aspects of music, and how music affects people emotionally. In this project, the student especially experienced emotion on a group level through song. The students may also have experienced emotions on an individual level, but this is hard to measure on a group level. Koelsch (2014) argued that music as a social activity may induce a shared experience of the music. This may have happened in the classroom, as the student had a shared goal, joint attention, the same intent, the same actions, and thus they may be joined emotionally as Koelsch argued may happen (Koelsch, 2014). The students that were interviewed expressed that they had fun during the project, with student 4 saying that it was so much fun that the laughter almost killed the student.

7 Conclusion

7.1 Summary

The conclusion drawn from the results of this thesis is that music can aid vocabulary acquisition. The research question was "What are the benefits of singing songs in the EFL classroom for vocabulary acquisition", and the study in this thesis found that the structure given by the rhymes and melody as well as the motivational and enjoyable aspects of music are beneficial when working with vocabulary acquisition.

7.1.1 Chapters

This thesis has tried to investigate how singing songs might impact vocabulary learning in the subject of English as a second language. The theory presented in the second chapter presented relevant theory on the specified area of research, accounting for vocabulary learning in English as a second language, music and vocabulary learning as well as the effects music has on the brain, and the motivational factor in working with English as a second language and how music can contribute on an emotional level. The methods presented in the third chapter presented the methods used in this study and how these methods were performed with the participants of this study. The results presented in the fourth chapter showed the results of the methods that were presented in the method chapter, and the analysis chapter presented an analysis of the results. The discussion chapter viewed the study together with the theory and how the study is viewed alongside relevant theory.

7.1.2 Main arguments

The main arguments in this thesis lies within the results from the methods. There were three methods used to find out what the benefits of using music to acquire new vocabulary. These were participatory case study, C-tests, and interviews.

The participatory case study was meant to investigate how students responded to using music in their language acquisition. As the results showed, the response was positive to the use of music. The students enjoyed their time singing songs in the classroom and asked for us to sing when they were in the reading group. This points to a motivation towards using music and in turn learning English as a second language. It seemed like this method resonated well with the groups of students. The observations from the participatory case study were based on my own observations as I led the class through either reading or singing. The results presented in the logs (see **appendix J-M**) is a truthfully written and has attempted to stay objective in reporting the results.

The C-tests' purpose was to formally and standardized show how much the students remembered from the session they had the week before. As the selection of words were not chosen at random and were often low-frequency words, the compromise of letting a few letters from the word remain in the C-tests were in effect. The students participated in selecting the words by asking about these words, thus making the selected words, arguably, the most difficult words of the texts. The results of the C-tests were that there was an increase in recollection and correctly filled in words in the groups that had worked with the texts musically. Because the groups alternated between being in the musical

and non-musical group, a difference in abilities were discovered in the results. This difference made it clear that the percentage points needed to be a determining factor as to which method yielded better results. After revising the differences in the percentage points, it made it possible to draw the conclusion that the musical groups had performed better in the C-tests.

The interviews were held to investigate the participants own opinions on the project as well as the subject themes of the study. This was done by selecting two interview subjects from each group and then ask them questions that were predetermined by the researcher (see **appendix N**). The questioned aimed to illuminate the aspects of enjoyment, motivation, vocabulary learning, music, and the students' own reflections. The results from the interviews highlighted many of the things that were discussed in the theory chapter of this thesis. The students said that they were motivated using music in their language acquisition, which had a subchapter in the theory section where it was discussed the importance of choosing engaging activities that the students enjoy. The students also expressed that they used the melody when they were taking the C-tests to aid them in recalling the correct words, which also was a point that was discussed in the theory chapter concerning the importance of melody, syllables, and rhythm in recalling words from songs. The interview participants also said that the project had been fun for various reasons. They also said that their preferred method of learning new words was different from each other, but that they enjoyed working with language acquisition the way that they did in this project. When asked what they had learned in this project, the interview participants expressed that they had learned different things, which lead to believe that there may be other aspects to using songs in second language teaching that deserve attention in the appropriate scientific communities.

7.2 Concluding remarks

It is important to acknowledge weaknesses within the study in this thesis, one of which has been discussed earlier. The interview had, upon revision, leading questions that should have been angled or worded differently to ensure an honest answer that the interview subjects did not feel compelled to give. It was not the intention to lead the interview subjects on by angling the questions in a certain way, they were asked that way to investigate aspects of the study that needed answering. The questions did not make it so that the answers were compromising to the study or that they harmed the study in any way, but it may lead to a revision of the validity of the answers to these leading questions. The answers have been used as they stand in the appendix (see **appendix N**), and it is important to keep in mind that some of these questions were leading reading this thesis. Another weakness in the study is the number of students and groups used in the study. Although the results stand well on their own, it would be interesting to see this study be conducted on a larger scale using more participants and more groups to investigate how music can aid second language acquisition.

Another possible weakness is the researcher's role in the acquirement of data. As explained in sections earlier in this thesis, it was important that I as a researcher participated in this way to ensure control over the project as well as having a better opportunity to report on the observations as I participated with the students. It offered a close view of the case as it happened. This may be regarded as a weakness to the study, the possibility that this made the researcher not remaining objective when reporting the results, but the observations that are in the logs (see **appendix J-M**) are as objective as possible and report the truth as it was observed.

Despite the possible weaknesses in this study, it is also important to regard the results of this thesis and what they show regarding the research question of this thesis. The results show that there are benefits to using music to acquire new vocabulary through musical properties, vocabulary acquisition theory, and motivational aspects when using music. The implications that this study may have for the subject of English as a second language is that music is a valid method for learning new vocabulary, and that there are good possibilities for language acquisition using music. The theory on the subject matter speaks favourably on the active use of music, and this study show the same results as earlier research has.

7.3 Further research

The suggested way that this subject matter and research area needs to go from here is to research it further. As well as the area of vocabulary acquisition, it could prove beneficial to investigate the area of pronunciation and writing as well, as shown in the interviews of this study. If further investigation is to be done on this research area, this researcher suggests using multiple methods, as the area of music have motivational and emotional values that might be best seen through multiple methods. Another thing that may prove beneficial for further investigation of the subject matter is the use of standardized testing for the possibility to quantify the results gathered. The number of participants may also be higher as well as the number of groups used to ensure more comparable results. The most important suggestion for further investigation on this research area is the use of both qualitative and quantitative methods. This was an element of this study that proved to be beneficial to the study, as both subjective and objective data were collected.

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Appendix

Vil du delta i forskningsprosjektet

Musikk i engelskspråklæring

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke bruk av musikk i språklæring i faget engelsk. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formålet med prosjektet er å undersøke hvordan arbeid med musikk i engelsk kan fremme språkkunnskaper. Prosjektet ønsker å undersøke særegne kvaliteter musikk kan ha for engelskfaget og hvilken betydning disse kvalitetene har for engelskfaget. Stikkord som er aktuelle for prosjektet er musikk, rim, ordlære, og minne.
Dette forskningsprosjektet er en masteroppgave.

Hvem er ansvarlig for forskningsprosjektet?
NTNU er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?
Du får spørsmål om å delta fordi du er en elev på mellomtrinnet.

Hva innebærer det for deg å delta?

Metoden som brukes i dette forskningsprosjektet er case-study med påfølgende elevintervju som vil omhandle elevens opplevelser med prosjektet. Prosjektet er ikke avhengig av å samle inn noe data som kan identifisere noen annet enn samtykke fra foreldre om at det er greit at eleven deltar i prosjektet. Deltagelse vil innebære å være med på aktiviteter i klasserommet, en C-test (fylle inn ord i setninger), og et elevintervju om prosjektet.

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.

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 kun vi som skal ha tilgang på samtykkeerklæringen, og det er ikke nødvendig med innhentning av noen som helst annen form for personopplysninger. Elevene kan selv velge navn de bruker under C-testen og elevintervju ettersom navn ikke er en faktor av betydning, med det eneste kriteriet at det ikke er deres eget. Ingen av deltagerne vil kunne gjenkjennes.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?
Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er mai 2021.

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

- innsyn i hvilke personopplysninger som er registrert om deg, og å få utlevert en kopi av opplysningene,
- å få rettet personopplysninger om deg,
- å få slettet personopplysninger om deg, og
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger.

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

På oppdrag fra NTNU har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Hvor kan jeg finne ut mer?
Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med:
- Student og forsker Ole Robert Folladal (olerf@stud.ntnu.no)
- NTNU ved Karen Bauer, prosjektansvarlig (karen.bauer@ntnu.no)
- Vårt personvernombud: Thomas Helgesen (thomas.helgesen@ntnu.no).

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:
- NSD – Norsk senter for forskningsdata AS på epost (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Med vennlig hilsen

Karen Bauer   Ole Robert Folladal
(Forsker/veileder)   (Masterstudent)

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet musikk i engelskspråklæringen og har fått anledning til å stille spørsmål. Jeg samtykker til:

- ☐ At mitt barn deltar i elevintervju
- ☐ At mitt barn deltar i prosjektet

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

----
(Signert av foresatt, dato)

The times they are a-changin'   -Bob Dylan

Come gather 'round, people

Wherever you roam

And admit that the waters

Around you have grown

And accept it that soon

You'll be drenched to the bone

If your time to you is worth savin'

And you better start swimmin'

Or you'll sink like a stone

For the times they are a-changin'

Come senators, congressmen

Please heed the call

Don't stand in the doorway

Don't block up the hall

For he that gets hurt

Will be he who has stalled

The battle outside ragin'

Will soon shake your windows

And rattle your walls

For the times they are a-changin'

Come mothers and fathers
Throughout the land
And don't criticize
What you can't understand
Your sons and your daughters
Are beyond your command
Your old road is rapidly agin'
Please get out of the new one
If you can't lend your hand
For the times they are a-changin'

Let it be – The Beatles

When I find myself in times of trouble, Mother Mary comes to me
Speaking words of wisdom, let it be
And in my hour of darkness she is standing right in front of me
Speaking words of wisdom, let it be

Let it be, let it be
Let it be, let it be
Whisper words of wisdom
Let it be

And when the broken hearted people living in the world agree
There will be an answer, let it be
For though they may be parted, there is still a chance that they will see
There will be an answer, let it be

Let it be, let it be
Let it be, let it be
There will be an answer
Let it be

And when the night is cloudy there is still a light that shines on me
Shine until tomorrow, let it be
I wake up to the sound of music, Mother Mary comes to me
Speaking words of wisdom, let it be

Let it be, let it be

Let it be, let it be

There will be an answer

Let it be

Appendix D: Bad Moon Rising: Creedence Clearwater Revival

Bad Moon Rising – Creedence Clearwater Revival

I see the bad moon a-rising

I see trouble on the way

I see earthquakes and lightnin'

I see bad times today

Don't go around tonight

Well it's bound to take your life

There's a bad moon on the rise

I hear hurricanes a-blowing

I know the end is coming soon

I fear rivers overflowing

I hear the voice of rage and ruin

Well don't go around tonight

Well it's bound to take your life

There's a bad moon on the rise

Hope you got your things together

Hope you are quite prepared to die

Looks like we're in for nasty weather

One eye is taken for an eye

Well don't go around tonight

Well it's bound to take your life

There's a bad moon on the rise

Don't go around tonight

Well it's bound to take your life

There's a bad moon on the rise

Appendix E: Good Riddance (Time of your life) − Green Day

Good riddance (Time of your life) – Green day

Another turning point, a fork stuck in the road

Time grabs you by the wrist, directs you where to go

So make the best of this test and don't ask why

It's not a question, but a lesson learned in time

It's something unpredictable, but in the end it's right

I hope you had the time of your life

So take the photographs and still frames in your mind

Hang it on a shelf in good health and good time

Tattoos of memories and dead skin on trial

For what it's worth it was worth all the while

It's something unpredictable, but in the end it's right

I hope you had the time of your life

It's something unpredictable, but in the end it's right

I hope you had the time of your life

Appendix F: C-test, The times they are a-changin' – Bob Dylan

Navn (alias):_____

The times they are a-changin'   -Bob Dylan

Come gather 'round, people

Wherever you *ro____*

And admit that the waters

Around you have grown

And accept it that soon

You'll be *dre_____* to the bone

If your time to you is worth savin'

And you better start *swi_____*

Or you'll sink like a stone

For the times they are a-changin'

Come *sen_____*, congressmen

Please heed the call

Don't stand in the doorway

Don't block up the hall

For he that gets hurt

Will be he who has *sta_____*

The battle outside ragin'

Will soon shake your windows

And *rat_____* your walls

For the times they are a-changin'

Let it be – The Beatles

When I find myself in times of tr_____, Mother Mary comes to me

Speaking words of wisdom, let it be

And in my hour of da_____ she is standing right in front of me

Speaking words of wisdom, let it be

Let it be, let it be

Let it be, let it be

Wh_____ words of wisdom

Let it be

And when the broken hearted people living in the world agree

There will be an answer, let it be

For though they may be pa_____, there is still a chance that they will see

There will be an answer, let it be

And when the night is cl_____ there is still a light that shines on me

Shine until tomorrow, let it be

I wake up to the sound of music, Mother Mary comes to me

Speaking words of wi_____, let it be

Appendix H: C-test, Bad Moon Rising – Creedence Clearwater Revival

Bad Moon Rising – Creedence Clearwater Revival

I see the bad moon a-rising

I see trouble on the way

I see ea_____ and li_____

I see bad times today

Don't go around tonight

Well it's bo_____ to take your life

There's a bad moon on the rise

I hear hu_____ a-blowing

I know the end is coming soon

I fear rivers ov_____

I hear the voice of rage and ruin

Hope you got your things together

Hope you are quite pr_____ to die

Looks like we're in for nasty weather

One eye is taken for an eye

Appendix I: C-test, Good riddance (Time of your life) – Green Day

NAVN (alias):_____

Good riddance (Time of your life) – Green day

Another turning point, a fork stuck in the road

Time grabs you by the wr_____, di_____ you where to go

So make the best of this test and don't ask why

It's not a question, but a le_____ learned in time

It's something unp_____, but in the end it's right

I hope you had the time of your life

So take the photographs and still fr_____ in your mind

Hang it on a shelf in good health and good time

Tattoos of me_____ and dead skin on trial

For what it's worth it was worth all the while

Log 11.11.2020

I arrived alongside my friend, who is a teacher at the same school but teaches a different class, at eight o'clock in the morning. I had met with the class some weeks earlier, so they were somewhat familiar to me, and I should be somewhat familiar to them. I had brought along my electric guitar and my amplifier as I was to work with a text with them both musically and non-musically. My electric guitar is a sunburst Squire Bulletstrat, a cheaper version of the famous Fender Stratocaster.

When the class arrived, their teacher did her morning routine with them before giving me the word. From there I reminded them of who I was and what my project was about. Then we split the class into two groups. The groups were predetermined as they use the same groups in several other subjects, so they knew what the groups were.

I started with the group that worked with the song musically. The song of the day was "The times they are a changin'" by Bob Dylan. First thing I did was to give them the lyrics, which I had printed out the day before. I told them about the title of the song and then the artist. We then listened to the song once via Spotify, so that they could hear how the original song goes. Then we tried singing it for ourselves. This went quite well, except for two obstacles. The first one was that the melody was a bit trickier than first anticipated. The students had trouble placing the pauses of the song and when to start up again. This meant that I had to lead by example by singing louder so they could hear when they were to start after a pause. This leads to the second obstacle, which was that I played the wrong notes a couple of times, having my focus shifted to singing more than playing. The students seemed fine with it, and even said that it was alright. After singing it the first time, I asked the students if they saw any words they did not recognize or wondered what meant. After that, we sang through the song some more. We sang the song four to five times in total. In between singing the song, I presented them with facts surrounding the song, and urging the students to interpret what the song was about. They were also encouraged to share thoughts they had concerning the song.

After the musical group had finished, we switched. The group that came in had been in the hallway with their regular teacher working on something different. The group that read the song like a poem went similarly, except they were not exposed to the music at all, including not being showed the original song at first. I read the text to them as a poem at first, before we

read it together aloud. The execution of the session went quite similarly as with the musical group, except that the non-musical group asked several times to sing the song, or at least listen to it. I reassured them that they would be singing a new song the following week, and they seemed to be alright with that. They were really curious of how the song sounded and wanted to sing it.

After both sessions had concluded, I hung around the classroom while the students went for recess. The students' teacher came in and we had an informal debriefing. My friend who teaches another class came in as well, and we talked about the sessions. I told them of my experience and what I had done, while their teacher and my friend shared their thoughts on what I said. The informal debriefing was helpful to me, as I got to process the sessions immediately afterwards. Their teacher spoke on their behalf since their teacher know the class well, and my friend spoke for the students, as he were familiar with them, and he could connect it with how I am, as he knows me personally.

Log 18.11.2020

I arrived, like last time, at eight o'clock alongside my friend who work at the same school. The class took their first C-test this day. I told them about the C-test and how they should do it, as well as explaining to them that they should use an alias instead of a name. The students liked this idea, and they created their aliases when they "signed" the C-test. They were told to remember their alias. The students worked in silence with the test, which consisted of the lyrics of the song they worked with the week before, except that six words were removed from the lyrics. The words were not completely removed, as the first two-three letters remained to compensate for the difficulty of the words. The students asked about several of the words, but they were told that they had to try their best and write whatever they could remember, as I t would be pointless to help or guide them. It would be against the purpose of the study. Some were frustrated by this, but not to the point of affecting their overall mood. The tests were collected as they finished.

After the tests were done, the class were split into the same groups as last time, except that the group that read the text as a poem the last time started with musically working with the text this time. The song of the day was "Let it be" by The Beatles. They got to listen to it via Spotify once, and some said that they might have heard it before, but they were overall unfamiliar with the song. The students learned the song fast, and there was no problem in singing this song. As for me, I know the chord progression of the song quite well, so it felt somewhat automatic for me, meaning that there were no visible musical errors from my end. The students seemed to like this song a lot. I chose a simpler song to compensate for the rather difficult song from the week before. In between singing, I talked about The Beatles as a musical phenomenon and the meaning of the lyrics, also encouraging the students to express thoughts they had on the song.

The next group, the group that read it like a poem (non-musically), expressed that they wanted to sing again, but I had to remind them of the structure of the study, meaning that they were going to sing the next week. The group wanted to sing the song but were fine with reading it like a poem aloud. The chorus of the song repeats the line "Let it be" often, making it slightly awkward reading it aloud with all the repetition without the melody. In between readings, I talked about the same things I did with the musical group, so the two sessions were similar.

I lingered for some time afterwards, talking with the students' teacher and my friend like last week, having a debrief of the sessions. Like last time, the debrief was very helpful for me to distance myself from it and getting to talk about it with people who knew the students and me.

Log 24.11.2020 & 25.11.2020

These sessions differed from the other sessions so far because they were held over two days instead of one day. This was due to the class having home economics on the Wednesday we would usually have the sessions on, and the class was divided in a way that made it hard to complete the session as usual. A compromise was made in the way of having one half of the class on the Tuesday of that week and the rest on Wednesday. I do not think this had an impact on the study, as a one-day difference does not affect the results significantly, in my opinion. The class was divided differently than the division of my project, so I had to do two sessions each day (one musical session and one non-musical session pr day), totalling in four sessions these two days. Although the sessions were held on different days, the sessions were similar in how they went.

The students got the same C-test both days, so technically, it would be possible to share answers with the class that did the test on Wednesday, however I do not believe they did that, because they were told by me and the teacher not to do so and the reason why it was important that they did not share answers (seeing as it might ruin the study). The C-test was from the material they worked with the week before ("Let it be" by the Beatles), and the testing went alright. They had a good test-taking culture/practice if that is an expression that makes sense.

The material they worked with these two days was "Bad moon rising" by Creedence Clearwater Revival. This is a song I have listened to a lot on my own and a song that I know well. It is an upbeat song with a simple melody line that repeats many times throughout the song. The lyrics have a weather theme and is open to interpretation in my opinion. It is, like "Let it be", a simpler and more manageable song than the first one they worked with. This was apparent with the group(s) that worked with it musically. They seemed to have a lot of fun when we were singing it. In between each time we sang it, I would tell them how I thought it was about a werewolf, since someone told me it was part of the soundtrack for "An American werewolf in London" (1981), which I have yet to confirm or deny. The chorus certainly fits. I also told them how it was actually a song about the Vietnam war. I also did this with the groups that worked with it non-musically. The students had questions about quite a few of the words in the text. The words were weather oriented, but many of the words were unfamiliar to many of the students. One of the students linked the word "hurricane" with the

English football player Harry Kane and how his nickname is apparently "Hurricane". One of the groups who worked with the text non-musically got a sense of competition when reading the text aloud, as they were set to be the best group working with this text. It was their idea, but I of course encouraged this competitive mindset. They wanted to be loud, and I told them that loud was good as long as it was clear and focused (not loud ramblings, that would not be good).

After all the sessions both days, I would talk with the class' teacher and my friend about the day and what we had done. These conversations were helpful to unload the impressions and experiences gained from the sessions (although they meant that I would miss my bus and had to wait for the next one).

Log 02.12.2020

The day started with me greeting the students like I usually do. The students have become accustomed to these sessions at this point, but the students are eager to ask if they are in the singing group or the reading group today as well. They were handed the C-test with the text from the week before, which was CCRs "Bad Moon Rising". This C-test had some difficult words, but no one complained during the test. The material they were working with this day was "Good Riddance (time of your life)" by Green Day. The students had remarked earlier that they only sang old songs in these sessions and had asked if I could pick something a bit more current. I chose a song from the mid 90's to meet them halfway. The song is a bit difficult to sing, as the low range of notes are quite low and the high range notes are quite high. Despite this, there are not that many melody lines in this song, making it manageable to sing for most people.

I had the chord progression put in a higher scale to make it easier for the students to sing the low parts. This meant that I had some trouble with the high parts of the song, but I believe I managed all right. The students sang the song together with me, and then we talked about words they found difficult or had not heard before. There were some words that were new to them. The students had caught on that the words we talked about during the sessions were the ones that were on the following C-test, so several students exclaimed that they knew that the word "unpredictable" would be on the test. The context I gave them for the song were how this is a song about saying goodbye to old friends and how they at some point in their lives would say goodbye to each other when they started at different schools for example, and that this was a nice song to sing their last day together if they wanted to. I also told them that this song played in the background at the very last episode of the TV-show Seinfeld in the 90's as a montage of behind-the-scenes footage rolled across the screen. They did not get that reference, so I had to tell them about that show as well. I did not dwell on that reference though, as to keep it focused on the song.

The reading group had a similar experience as the singing group, where we read the text together and talked about the theme and cultural references in between readings. I wanted to keep it as similar as possible, so they were told about the last episode of Seinfeld as well. They did not get the reference either. The reading group had to stop for a longer time at the

word "unpredictable" than the singing group, but the reading group got the word in the end as well.

After having sung and the read the text with the students, I debriefed with my friend who works there and their teacher. We talked about the song and how the students had experienced the sessions. We laughed at this being a modern song despite it coming out in the 90's, so it was way newer than the other songs they had sung up until now.

Appendix N: Interviews

Interview with Student 1, Student 2, Student 3, and Student 4.

Interviews were done separately, not in as a group. Categorization by colour: Enjoyment – Motivation – Vocabulary Learning – Music - Reflection

Interviewer: What do you think about working with text like we have done?

Student 1: It has been fun. Better than working from the book.

Student 2: It has been fine. Very fun.

Student 3: Very fun compared to working from the book. A different way of learning. I enjoy singing very much

Student 4: A bit fun. A bit hard to understand the texts. It had been easier if it had been songs I had heard before.

I: What do you think about the texts? Were they difficult?

S1: They were not so difficult to sing. I had heard some of them before. Just needed to find the melody.

S2: They were alright. The first one was hard.

S3: A little bit, but fun to sing. Some difficult words, but the texts themselves were not so difficult.

S4: The texts were quite difficult. I understood Let it be. A lot of repetition in that one.

The students seem to have enjoyed themselves, and they have had fun during the project. S3 and S1 compare the experience to working from the textbook, and they say they prefer working with texts this way in comparison. S3 expands further on this with the reflection that this is a different way to acquire knowledge than they are used to. S4 expresses that it has been enjoyable despite having some difficulties with understanding the texts and suggests that it would be easier had the songs been known to them.

The students have different experiences with the texts. They express that despite that the texts were sometimes hard, they managed to participate in singing and reading the texts. S1 had heard some of the songs before, and just needed to find the melody. S2 thought "The times they are a changin'" was a bit difficult. S3 enjoyed the texts when singing. S3 also differentiates between the text and the words within the text, not categorizing a text as difficult when it contains new words. S4 thought the texts were difficult, but "Let it be" was understandable. S4 says that the repetition of that song made it easier to understand. Repetition is a key factor to vocabulary learning and learning through music.

I: What do you think about the tests? Were they difficult?

S1: A bit difficult to remember the words. Otherwise, they were fine.

S2: It was alright. I remembered most of it.

S3: Good, understood some of them. A good rule of thumb is that one must pay attention to the text.

S4: They were difficult, for I did not remember so many words.

The students have different experiences with the C-tests. They all acknowledge that it was hard to remember the words one week after they worked with the texts, in various extents. S2 expresses that most of the words were remembered, but not being confident of a full score. S3 and S1 expresses that the tests were fine despite having some difficulties. S4 says that the tests were experienced as difficult, as it was hard to remember the words.

I: Did you have fun during the project? What was fun?

S1: Yes. The singing was fun because we did not have to work from the book.

S2: Yes. It was fun to sing some more songs.

S3: Yes. Singing was particularly fun because I enjoy it so much.

S4: Yes. I have almost laughed myself to death all the time. The singing has been the most fun.

All the students say that they have had fun during the project. S1 compares it to working from the book, and that is why singing was the most fun. S2 found it the most fun to sing more songs, implying that they were new songs to this student. S3 says that singing was the most fun because that student enjoys singing. It may have been motivating for that student to sing because of the enjoyment part of the singing. S4 expresses that it has been a lot of fun, claiming she has laughed a lot during the sessions. This might have been motivating for that student, especially considering that this student expressed difficulties with remembering the words for the tests.

I: Did you learn anything during the project?

S1: Yes. Learned some new words and new ways of writing sentences.

S2: Yes. I have learned more words.

The answers the students gave for this question is interesting, as they seem to have learned different things during the project. They know that vocabulary has been in focus, but some students claim they have learned other things. S1, S2, and S3 say they have learned new words, which is in accordance with what was tested.

S3: A bit. I have at least learned some words.

S4: Yes. I have learned to pronounce words better.

I: Do you listen to music a lot in your spare time?

S1: Yes, quite a lot. In similar genres. Mom listens to P7 Klem, but I listen to similar music as the one we used in the project. I play the guitar.

S2: No, not really.

S3: Yes! A lot! I say "Hey, google. Play music", and then music plays.

S4: Yes, playing loud music in the car. Rock with my father, and Miley Cyrus with my mother. I like that kind of music.

I: Have you listened to the songs we used in the project in your spare time? Both the ones you sang and the ones you read.

S1: Yes, I have listened to Let it be. I have not listened to the ones we just read.

S2: No, I have not listened to them in my spare time.

S3: I have listened to one. Let it be. I have not listened to any of the others. Listened to how the ones we sang actually were.

S4: Never. I have not listened to them.

However, S4 has learned to pronounce better, and S1 has learned to write sentences in new ways. This was not in focus, but both are legitimate outcomes of working with texts as they have in the project. These learning outcomes goes beyond the targeted outcome.

This question's aim is to explore the relationship the students have to music prior to the project. Three out of four expresses that music is something they listen to a lot in their spare time. S2 on the other hand says that this student does not listen to music all that much but has earlier expressed enjoyment in working with the texts musically, especially expanding the student's "musical catalogue" by learning new songs.

For the most part, the students have not listened that much to the songs or text they have worked with. S1 and S3, who were in the same group, say thay have listened to "Let it be" in their spare time, implying that they enjoyed this song the most compared to the other songs. The two from the other group did not listen to the songs or text they worked with at all, implying that the songs or texts, although being enjoyable to sing and read during class, not being interesting enough to them to be a part of the music they listen to in their spare time.

I: When do you think it is best/easiest for you to learn new words? How do you approach learning new words?

S1: I do not quite know. First, I find out how it is written, then how it is pronounced, and then it sticks automatically.

S2: Reading the whole sentence, because then I understand the whole meaning of it.

S3: When I hear the words several times and when I hear them in songs. I do that myself sometimes, but mostly through reading.

S4: Cramming/memorizing. After a while I learn them by heart.

The students are here given a chance to express and reflect over their preferred method for learning new words, and the answers varies from student to student. S1 focuses on form and pronunciation to learn words, not focusing on meaning. S2 understands new words based on the context it is written in, finding out what it means based on that. S3 learns best through repetition. S3 uses repetition through both oral and written methods, and that hearing words through songs is a viable option for learning new words. S4 learns best by cramming and memorizing, having explicit focus on learning new words. After cramming and memorizing enough, the words are learned by heart. All of these ways of learning new words are well known methods of learning new words, and it is interesting that the students differ as they do in this question on their preferred method.

I: Do you think you are going to use song lyrics to learn new words in the future? Did you have a good experience with using song lyrics?

S1: I might.

S2: I might.

S3: Maybe. More internet based using google translate. Yes, it was a good experience.

S4: Yes, perhaps with some of my favourite songs.

The students varied in their answers to this question. S4 was the only student to express beyond doubt that this was a method that this student might utilize later in the education to learn new words using songs that the student knows. This is in accordance with another answer given in the interview. S1 and S2 both said they might use this method without expressing enthusiasm towards the method. S3's answer was maybe, and that the student might use Google Translate as well. This is in accordance with a previous answer, where S3 expressed that the texts were not difficult except for some difficult words. Using Google Translate along with using song lyrics might remove the difficult aspect for this student, making this method more approachable for this student.

I: Based on how you feel you did on the tests, which approach do you think worked best? Which method do you think you learned the most from?

S1: Singing. I like to sing. When something is fun, it becomes easier to learn.

S2: To sing songs, because then you get the melody of it, and then you remember more words.

S3: I sang through the songs to find the right word, so song worked the best.

S4: I like to sing the most, because I enjoy it, and that makes it more fun to learn.

The students agreed that using songs to learn new words was the best method to them. They gave, however, different answers to why they meant that they did best in singing the texts. S1 and S4 point to the fact that they had fun when singing the songs, and they both agree that when something is fun, they learn better. This implies that they felt more motivated during the singing compared to the reading of the texts. Both working with texts musically and non-musically have the same expected outcome, and the fact that they highlighted the part of it being more fun to sing and therefore found motivation is and interesting find considering the theory on motivation in second language learning. S2 and S3 gave different reasons for singing to be the best method than S1 and S4. Both S2 and S3 expressed that it was easier for them using music due to the melodic cues they had when working with texts musically. This is an interesting find considering the theory on music as a memory enhancing device in language learning. These last statements from the students highlight important advantages of using music in vocabulary learning.