Abstract

The aim of this master thesis is to investigate the role of transfer in Norwegians' use and evaluation of English nominal phrases. Twelve 16-year old Norwegian high school students and twelve Norwegian master-students perform an acceptability judgment test, evaluating 72 English sentences where 36 of them aim at investigating possible transfer elements of the different nominal systems. Most ratings seem to be within expectations and only certain elements seem to suggest any influence by negative transfer. The results show that proficiency does matter in the evaluation of the sentences and the master students show less trace of negative transfer than the high school students. The result also indicates that other factors influenced the ratings. These factors include the lexical and syntactical level of the sentences, and the naturalness or abnormality of the content of the sentences.

Preface:

I would like to start with thanking everyone who has contributed and helped with my thesis. I would especially like to thank my supervisors Associate Professor Terje Lohndal and Professor Mila Dimitrova Vulchanova for all their support, guidance, feedback and inspiration during the development of this thesis. I would like to thank all the volunteers who agreed to participate in this project and to those who helped make it happen. I would further like to thank Camilla Hellum Foyn for helping with PAWS. Thanks also to Luke James Barber for proofreading the thesis. Finally I would like to thank Ruben Speybrouck for his support and patience during this process.

I am studying to become an English teacher and I therefore wanted my thesis to revolve around a theme relevant to the field of second language acquisition. I was particularly interested in the role of transfer. In conversations with my supervisors Terje Lohndal and Mila Dimitrova Vulchanova it was therefore decided that I would further investigate the role of transfer in second language acquisition, focusing on nominal phrases in Norwegian and English. I believe that the topic of my thesis is relevant to my future plans and that working on this thesis has left me with new valuable experience. It has been a challenging and educational process, which has increased my knowledge of, and interest in, second language acquisition in general.

Ingrid Frugård

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Contents

1.0 Introduction

The role of transfer from a learner's first language in the acquisition of a second language has been widely debated from the beginning of Second Language Acquisition as a research field. Research has found that it is an important element in the acquisition of a second language, L2, and that it can be both helpful and interfering in the learning process. Early on it was believed that the greater the difference in elements between the languages, the harder it would be to acquire (Lado, 1957). Ringbom and Palmberg (1976) claimed that the elements that are slightly different are in fact the hardest to fully acquire. Others have emphasized the role of the L2 learner and how he has certain choices to make. Stockwell et al (1965) suggested that the elements that are harder to learn are those that include more options in the target language than in the native language. Kellerman (1979) and Corder (1983) emphasized the perception the L2 learner has of the similarities and differences between the languages he knows. The more proficient the L2 learner becomes, the more accurate will his choices become, but there are limits to how proficient any L2 user can become.

The aim of this MA thesis is to study Norwegian L1 speakers' knowledge of English nominal phrases. These two languages have quite similar structures for nominal phrases and they both have articles. This leads one to expect that the acquisition of English nominal phrases by Norwegian speakers should be close to effortless and error-free. However, given the minor differences in structure it was expected that there would be certain elements that would be harder to acquire than others, and that therefore one could expect the Norwegian participants to make certain errors when using their second language. The project was therefore constructed to investigate different noun phrase variables where Norwegian and English have many similarities but also include some differences. It was also decided to use participants from two different groups where one was expected to be more proficient than the other, and therefore also investigate the potential effect of proficiency and its limitations. The main interest was to see whether or not some of the variables stood out as being harder or easier to acquire. The main hypothesis was that the structure of the participants' Norwegian L1 would affect the judgment on some of the elements in the English noun phrase structure. Even though English and Norwegian have a great deal of similarities they still differ and this difference can lead to transfer.

The participants were divided into two groups. One consisted of twelve 16-year-olds attending their first year in Norwegian high school (VG1). The other groups consisted of twelve master students studying English at a master level at NTNU. The participants all volunteered although the VG1-students came from a preselected class chosen by their school. The level of proficiency was expected to vary within the VG1-group where English is an obligatory subject, and the NTNU-students were expected to be more proficient than the VG1-students. The two groups where chosen to have the opportunity of comparing the effect of proficiency on the results. The level of proficiency was measured by using an advanced grammar-test and a vocabulary test. They all did an acceptability judgment test which focused on the variables: bare noun phrases, determiner noun phrases and possessive noun phrases. The results were analyzed in Excel and PASW.

This thesis is divided into an introduction, a main body and a conclusion. The main body is further divided into four chapters: In chapter 2 the theoretical background is presented, chapter 3 introduces the method and its participants, chapter 4 presents the results of the tests and in chapter 5 the results are discussed based on the theory.

2.0 Theoretical Background

2.1 Second Language Acquisition

A second language (L2) can be defined as any language acquired subsequent to the first language (L1) (Ellis, 1997). Second language acquisition can refer both to the acquisition of a second language and the study of "the way in which people learn a language other than their mother tongue, inside or outside of a classroom" (Ellis, 1997:3). When referring to a learner of a second language one is then referring to someone who is learning a language after already having acquired at least one first language. A first language is often referred to as a mother tongue or a native language and is the language or languages first acquired by any speaker (Ellis, 1997). Second language acquisition then by definition differs from first language acquisition and according to Cook (2010) second language acquisition would not be an independent research field if there were not certain crucial differences between L1 and L2 acquisition processes.

In the discussions regarding the differences of L1 and L2 acquisition the main focus has been on the end results of the two types of acquisition. First language acquisition leads to native linguistic competence and thus a lot of SLA research has focused on what Cook (2002) refers to as the "'ultimate attainment' in second language acquisition: can L2 users ever speak like natives?"(Cook, 2002: 6). Some L2 users can pass as native speakers in some ways, their pronunciation may sound native-like, but not in others, they make some grammatical mistakes. It has generally been stated that an L2 learner cannot acquire the same level of proficiency as an L1 speaker of the same language (Birdsong, 2006; Cook, 2002). One of the main reasons for this claim revolves around the age of the L1 and L2 learners. The Critical Period Hypothesis originally proposed by Eric H. Lenneberg in 1967 (Johnson and Newport, 1989; Stewart, 2003) suggested that there is an age where one is more equipped to acquire a language. The idea is that the younger the learner is when the acquisition process starts, the higher the possibility of becoming highly proficient in a given language. To become a native speaker of a language it therefore has to be acquired in early childhood. The theory has been widely debated and a lot of research has been conducted both to support and to falsify the claim (Hyltenstam and Abrahamsson, 2000). According to Hyltenstam and Abrahamsson (2000) there is no real evidence against the Critical Period Hypothesis, and there are limits to how proficient an L2 learner can become. The real problem has been to say exactly when the critical period ends. It has been common to make a distinction between child and adult acquisition and it is believed that language acquisition is faster and more successful before puberty although there have been instances of more successful acquisition succeeding puberty

as well (Snow and Hoefnagel-Höhle, 1978). It has also been argued that the decline is not as sudden as first suggested, but shows a linear decline from an earlier stage in childhood towards puberty (Johnson and Newport, 1989).

Cook (2002) acknowledges that it does make sense to compare the L2 user to native speakers when calculating their level of proficiency. However, a lot of research portrays the L2 user as an incomplete version of an L1 speaker, an assumption he disagrees with. According to him, an L2 user has his own system and understanding of the second language. Like billinguals, L2 users do not use any of the languages they know, be it their first or second languages, in the same way as monolinguals (Grosjean, 1989; Treffers-Daller and Sakel, 2012; Cook, 2002). There are certain tasks that an L2 user can do that monolinguals cannot perform. These include code-switching between languages and translating from one language to another (Cook, 2002). An L2 user also differs from monolinguals in the sense that even when he is only making use of one of the languages, the other language is still affecting the language in use. The first language affects the acquisition and use of the second language and the second language affects the acquisition and use of the first language (Treffers-Daller and Sakel, 2012; Cook 2008). L2 users and L1 users can also have different reasons for using a language. Cook (2002) originally separates the terms L2 user and learner. A user makes use of the language in real-life situations. L2 learners, on the other hand, can acquire a second language due to it being an academic subject alongside other subjects. As a result an L2 learner might lack the intention of becoming an L2 user and are forced to make use of their L2 without having any self-sought motivation for it (Cook, 2002; Ellis, 1997).

There are several different theoretical approaches to language acquisition although one can roughly divide them into two main approaches: those focusing more on external factors and those focusing on internal factors (VanPatten and Williams, 2007; Ellis, 1997) also called the nature and nurture approaches (Gass and Selinker, 2008). The approach based on external factors emphasizes input, environmental factors, communication possibilities and instructions to name a few. The internal approach believes that there is an innate language faculty and is especially linked to the generative linguistic approach of Universal Grammar (UG). UG was first introduced by Chomsky (1965) and states that human beings have an innate knowledge of language that they are born with. According to UG the innate knowledge includes predetermined principles: common to all human languages; and parameters: choices that have to be set for each language, and that when exposed to a target language this activates this innate knowledge which leads to the construction and use of the grammar of the target

language (Haegeman and Gueron, 1999; Nordgård and Åfarli, 1990). Part of the background of UG is based on observations made by researchers which have shown that the learners acquire more knowledge of their target language than they have received through input. Although other approaches have different explanations for the construction of any target language there is a broad consensus that certain properties of language are too complex or abstract for anyone to acquire without an unconscious knowledge of their language. However, general cognitive factors, not specific to language, are supposed to be sufficient by other scholars (e.g. Langacker, 1987; N. Ellis, 2005). On the other hand there cannot be any acquisition of a language without any input and therefore it is mostly accepted that the external factors and internal factors work together in the acquisition of any language (Ellis, 1997).

2.2 Transfer in Second Language Acquisition
The role of transfer in second language acquisition has been widely debated and different theories have emerged as a result. Transfer is often described as the structure of the L1 (as already existing language competence) affecting the way the target language is acquired or learned. Transfer is most commonly observed in overt L2 users' production (Carroll, 2007). One of the earlier theories discussing the role of transfer saw a strong link between transfer and second language acquisition. Lado (1957) claimed that the level of similarity between the first language and the second language decided the level of difficulty of acquiring certain aspects of a language, a theory called the Contrastive Hypothesis. Those elements of a language that were similar to the learner's first language would be easier to acquire and those elements that differed from the learner's first language would be harder to acquire. From this point of view L1 transfer can both be helpful and hindering in the acquisition of a second language; it could have a positive effect and be called "positive transfer" or have a negative impact and be called "negative transfer" or "interference" (Littlewood, 1984; Ellis, 1997; Gass and Selinker, 2008). However, others have found that it is not necessarily the biggest differences that make up the greatest challenges for the learner but those items that are only slightly different, or moderately similar, that produce the greatest level of confusion and interference (Ringbom and Palmberg, 1976).

Another reason for rejecting the Contrastive Hypothesis concerns the order of L2 acquisition. According to CH one could expect the more similar elements to be acquired earlier than the elements that differ from the first language. However, Dulay and Burt (1974) found that the L2 learner's order of acquisition resembled that of L1learners, regardless of

their L1. However, the L1 can still influence the acquisition of an L2. Although transfer does not affect the order of acquisition there is a clear relation between speed of acquisition and so-called language distance (Gass and Selinker, 2008). Stockwell, Bowen and Martin (1965) conducted a study of English and Spanish language learners looking at the levels of difficulty compared to the varying degrees of differences between first and second languages. They proposed that the learner have to make certain choices when using his first language and the language he is acquiring. They divided these choices into three categories: no choice at all, obligatory choice and optional choice. Their scheme suggested that the highest level of difficulty occurred when there is no choice at all in the learner's first language but an obligatory choice in the second language and that the lowest level of difficulty occurred when both languages have an obligatory choice. In other words when an L2 learner goes to a language system that has a more complex structured mapping-system than the learner's L1, mistakes are more easily made (Stockwell et al, 1965).

Sabourin, Stowe and de Haan (2006) conducted a test looking at Dutch L2 users with different L1 backgrounds and their acquisition of Dutch gender-classes and nouns. One of the reasons for looking at the acquisition of gender-classes is because it is one of the more difficult elements to acquire for L2 learners. It has been common to refer to three degrees of transfer: no transfer, some transfer, or complete transfer. According to Sabourin et al (2006) transfer can further be divided into two types: surface and deep transfer. Surface transfer occurs when the surface features between two languages are similar enough for the L2 user to copy the structure of his L1 and directly adapt it to the structure of the L2. Deep transfer refers to the transfer of more abstract language features. Even though the L2 users do not have morphologically similar exponents in their L1 it would still be possible to transfer syntactic categories that are included in both languages (Sabourin et al, 2006). Their study shows examples of both types of transfer. The participants' L1s included English, German and Romance languages. The structure of the German noun phrases is very similar to that of the Dutch, and the Germans could therefore make use of surface transfer which helped them to do better on the gender agreement tasks than the other L1 participants. The Romance language also include grammatical gender which differs from the Dutch system, but because there is a more abstract similarity between the languages it allowed the Romance L1 speakers to make use of deep transfer and therefore did better than the English L1 speakers whose nouns do not have grammatical gender (excluding pronouns) and therefore could not make use of transfer from their L1 (Sabourin et al, 2006).

Although the actual similarities between the L1 and the L2 are of importance to the L2 acquisition, it has been argued that the assumed similarities are of greater importance. As Kellerman (1979), Corder (1983) and Ringbom (1986) point out, the learner of a second language is an active participant and therefore he can select which elements that are transferable and not. Kellerman (1979) emphasize that if certain aspects of the second language are found to be completely different from the first language the learner will not use transfer as an acquisition method. If the elements are perceived to be similar between the languages the learner can make use of transfer to help in the acquisition of a second language (Ringbom, 1986). If, on the other hand, the elements are wrongly perceived as being similar it increases the risk of negative transfer (Kellerman, 1979). The L2 learner's choices are based on the learner's notion or perception of the differences between the structures of his first and second languages and this perception will change as he continues to learn and develop his mapping of the second language (Corder, 1983; Kellerman, 1979; Ringbom, 1986).

Although there is "overwhelming evidence that language transfer is indeed a real and central phenomenon that must be considered in any full account of the second language process" (Gass and Selinker, 1993: 7) it is still clear that it is not the only factor at work in the acquisition of a second language. When acquiring a second language the learner can be said to make use of a mapping-system where the state of L2 grammar is regulated by Universal Grammar and pre-knowledge of the first language (White, 2012), but which is also affected by input, instructions or other external factors (N. Ellis, 2005). One way in which Universal Grammar regulates the acquisition of an L2 is through the access of parameters which helps with the structuring of languages and which goes beyond the input of the L2 (White, 2012). According to Ionin, Ko and Wexler (2004) L2 learners show evidence of accessing parameter-settings that are not connected to their L1 nor their L2, meaning that they have access to the parameters of other languages; and they are also capable of choosing the correct setting of parameters depending on which language they use. However, even with full access to UG parameters of the target language, mistakes are still made. In their opinion, this supports the Fluctuation Hypothesis (FH) stating that when L2 learners acquire the grammar of a second language they "have full access to UG principles and parameter-settings. L2 learners fluctuate between different parameter-settings until the input leads them to set the parameter to the appropriate value" (Ionin et al, 2004: 16). According to FH any errors that are made by L2 users are rooted in the L2 users switching between two (or more) parameter settings and end up using some that are not appropriate for their second language. The more exposure the learners have to their L2 the better they will become at making use of the correct

parameter. However, it is likely that at some point the development of the L2 grammar will fossilize and it has been stated that only five percent of the L2 learners reach the level of mental grammar that L1 users do (Ellis, 1997) which means that negative transfer can still occur among rather proficient L2 users. Mayo (2009) conducted a test looking closer at the relationship between the fluctuation hypothesis and transfer from the L1 by comparing Spanish and English L1 speakers. Ionin, Zubizaretta and Maldanado (2008) conducted a similar test. Both concluded that input, transfer and UG-based knowledge all play a part in the acquisition of a language. The stronger the similarity between the L1 and the L2 the less important is UG in their acquisition of a second language, the bigger difference the greater the importance of UG (Ionin et al, 2008).

2.3 Comparing English and Norwegian with a focus on nominal phrases

Jin, Åfarli and van Dommeln (2009) conducted an experiment where they tested English and Chinese L1 speakers acquiring Norwegian as an L2. Although English has an article system and Chinese does not, the English native-speakers did not do significantly better than the Chinese native-speakers and both groups struggled to produce correct determiner noun phrases. This was partly due to the more complex structure of the Norwegian article system which distinguishes between genders and due to the phenomenon of double-definiteness (Jin et al, 2009). An assumption could be that it would be easier for the Norwegians to acquire the right use of certain elements of the English nominal phrases, like the use of articles, seeing as the Norwegian system can be argued to be more complex, and that therefore the Norwegians would be expected to not make any mistakes when they use English nominal phrases. To evaluate this assumption it is necessary to make a more thorough comparison between Norwegian and English. I will mostly focus on the nominal phrase and important differences between Norwegian and English.

English and Norwegian have certain similarities. The word order in a sentence is usually structured in the same fashion: in declarative sentences the languages use the S-V order and in interrogative sentences the V-S order (Haegeman and Gueron, 1999; Julien, 2005). The noun is a lexical category and noun phrases are "referring units and can vary from single words to long and complex structures. They identify what we are talking about" (Hasselgård et al. 2012: 85). Noun phrases can consist of nouns, determiners and modifiers. The noun is essential in every noun phrase seeing as it is the head of the noun phrase and is therefore the core part of the noun phrase, NP. Determiners and modifiers add information to

the head noun and can therefore vary from noun phrase to noun phrase. A modifier that stands to the right of the core noun is called a complement of the noun. A modifier that stands on the left of the core noun is called a specifier or a determiner of the core noun. Modifiers also include attributive adjectives that stand on the left side of the core noun (Nordgård and Åfarli, 1990). An example of a noun phrase including these elements is found in (1):

(1) I own the two oldest existing books about Trondheim.

I own [NP the DET two attributive adjective oldest attributive adjective existing N books [complement about Trondheim]]

A noun phrase can include more than one noun and then only one of them will be the head noun. Example (2) shows noun phrase where 'picture' is the head noun and the rest provide additional information about the head noun (Haegeman and Gueron, 1999):

(2)The students admired Sara's picture by Rembrandt

2.4 The variables

Most of the studies that have looked at the acquisition of noun phrases have focused on L2 learners without articles in their L1. The majority of the languages in the world can make do without articles and when speakers from such L1 backgrounds acquire an L2 with articles, they struggle to use the articles correctly and either overproduce or omit them incorrectly (see Ionin et al, 2004; Sarko, 2009; Mayo, 2009; Kim and Lakshmanan, 2009; Trenkic, 2009). Most studies suggest that incorrect L2 article omission/overproduction decreases as the L2 learner acquire more of the target language and become more proficient. However, research has also found that even highly proficient L2 users who for the most part manage the correct use of noun phrases and its modifiers suddenly make certain errors, usually as a result of influence by their L1 (Trenkic, 2009). Norwegian and English both include articles and one can therefore expect the Norwegian L1 speakers to have an advantage when acquiring English noun phrases. However, some differences still exists. The following sections present the areas that this thesis will be focusing on. They present certain elements of the noun phrase where Norwegian and English have many similarities, but also differ slightly. These areas can therefore be of interest when looking at possible errors caused by transfer.

2.4.1 Bare noun phrases

The first variable concerns bare noun singular phrases. Bare noun phrases also include bare plurals but this thesis will focus on bare singulars, partly because there are greater similarities between bare plurals in English and Norwegian than between bare singulars and therefore the latter category is of greater interest to the second language acquisition part of the thesis. Borthen (2003) defines a bare singular as "nominal constituent that is countable, singular and indefinite, and that doesn't have a phonetically realized determiner" (Borthen, 2003: 10). An example of this in English is found in (3) where the bare singular is underlined:

(3) we watched <u>television</u>

Another example could be the Norwegian bare noun phrase found in example (4)

(4) Nina er <u>tvilling</u>

     Nina is <u>twin</u>

     'Nina is <u>a twin</u>'

This definition excludes a-expressions which are phrases that are initiated by the indefinite article 'a'. An example of this is shown in the English version of (4) and also in (5):

(5) They shared <u>an apartment</u>

Bare singulars are also a result of their distribution. In this thesis the focus will be on bare singulars that can occur in normal conversation and has therefore avoided looking at examples that would be acceptable if they occurred in headlines, titles and commercial contexts but that would otherwise be deemed as unacceptable.

Borthen (2003) points out that her definition needs certain specifications concerning Norwegian bare singulars. The definition refers to bare singular as indefinite. Norwegian bare singulars are both morphosyntactically and semantically indefinite: morphosyntactically because they lack the definite suffix on the noun and the separate determiner that precedes the noun; semantically because the bare singular does not have a definite semantic value that some determineless singular nominal phrases include (Borthen, 2003: 13-14). Bare singulars have to be indefinite. There is no special affix for indefiniteness and therefore bare singulars

and a-expressions are written in the same way seeing as a-expressions are marked by a preceding indefinite determiner and by using the root form of the noun.

The indefinite article 'a' is the indefinite counterpart of the definite article and can be used for singular countable nouns. The indefinite article is used more widely in English than in Norwegian, and as a general view English requires an indefinite article almost exclusively consistently with countable nouns than Norwegian does (Borthen, 2003; Hasselgård et al, 2012). This is the case in example (4). Other examples are also shown in the English and Norwegian pairs (5a) and (5b), (6a) and (6b), and (7a) and (7b):

(5a) They shared <u>an apartment</u>

(5b) De   delte   <u>leilighet</u>
   They shared apartment
   'They shared <u>an apartment</u>'

(6a) She was checked by <u>a doctor</u>

(6b) hun   ble   sjekket av <u>lege</u>
   she became checked by doctor
   'She was checked by <u>a doctor</u>'

(7a) ordered a ticket

(7b) bestilte   <u>billett</u>
   ordered   ticket
   'ordered a ticket'

Examples (8) and (9) have excluded the necessary indefinite article because it would not be requested in Norwegian. They are therefore interesting examples to use when looking for possible elements of negative transfer.

(8) * She was checked by <u>doctor</u>
(9) * Ticket was already <u>ordered</u>

Another generalization is that Norwegian can often make do with the zero article or a bare noun phrase when focusing on something that is more a general type than a specific entity. The zero-article is however also used in English but then it is with uncountable or plural

countable nouns, which is the case in (10) where 'coffee' is an example of the use of an uncountable noun.

(10) There is <u>coffee</u> on the table

The zero article is normally not used with singular countable nouns. English requires an indefinite article more consistently with countable nouns. There are however exceptions to this rule. Some examples of this are references to times, meals and institutions. Example (11) shows an example of the latter, where college is an example of institutions:

(11) Robert enjoyed <u>college</u>

English noun phrases that are used in a predicative position that characterize a person with regards to nationality, religion, profession or some other features, do require an indefinite article (Hasselgård et al. 2012).

(12a) *He   has   Norwegian   citizenship
(12b) Han har   norsk   statsborgerskap
        He   has Norwegian citizenship
        'He has a Norwegian citizenship'

Example (12a) illustrates an example where the noun phrase lacks the necessary indefinite article. The sentence in example (12a) is directly translated from Norwegian (12b), and the Norwegian version of the sentence is both acceptable and the most common way of saying it in Norwegian (Borthen, 2003). 'Norwegian' is not the noun in sentence (12a) and because the adjective Norwegian could be accepted without the article in another sentence (e.g. 'he is Norwegian') it is possible that the participants will either transfer elements of the Norwegian structure when judging this sentence, or mix up the use of Norwegian in the context. Norwegian is only modifying the noun citizenship and the indefinite article is required in English (Hasselgård et al, 2012). Trenkic (2009) points out that if no article would be required in the L1 noun phrase, but it does in the L2, a modifying adjective would increase the chances of him omitting an article incorrectly when using his L2. This is less likely to happen in similar contexts where the noun has not been modified by an adjective. Another example of a modified noun phrase is found in (13a) which also lacks the necessary indefinite article.

(13a) *He has <u>high fever</u>

(13b) Han har <u>høy feber</u>

He has high fever

'He has <u>a high fever</u>'

The Norwegian version in (13b) is perfectly acceptable and it is most commonly used with the zero-article. Several Norwegian noun phrases can either include or exclude the indefinite article. The examples found in (5b) and (14), and (15a) and (15b) also illustrate this:

(14) De delte <u>en leilighet</u>

They shared an apartment

'They shared <u>an apartment</u>'

(15a) Du er geni

You are genious

'You are a genious'

(15b) Du er et geni

You are a genious

'You a genious'

Often one alternative can be argued to sound more natural or be more commonly used than the other. Which one that is preferred can depend on the context, seeing as the two forms often indicate slightly different meanings (Borthen, 2003). Intuitively, one can for instance argue that example (15b) sounds more natural than (15b), while examples (5b) and (14) are both quite commonly used.

2.4.2 Determiner noun phrases

Determiners (DET) belong to a non-lexical category and have a functional content. The class of determiners is fixed and unlike noun and verb classes new versions cannot be created. Determiners specify the head noun with respect to features such as number (a, one, all,…), definiteness (the), distance (this, that,…) and ownership (my, your, its,…) (Huddleston and Pullum, 2002). Although this group of variables has been named "determiner noun phrases" the focus will mainly be on the use of definiteness. The definite article in English is called 'the' and is a prenominal free morpheme characteristically associated with a noun. In English it does not vary for gender or case and it is associated with both singular and plural countable nouns ('the dodo', 'the books'), as well as with mass nouns ('the water'). Nouns may also be preceded by demonstrative pronouns such as 'this/these', 'that/those'. In English, nouns can

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be preceded either by an article or by a demonstrative, but not by both. Articles and demonstratives are said to be in complementary distribution which means that they take up the same place in the noun phrase (Huddleston and Pullum, 2002). Example (16) shows a violation of the rule while (17) shows an example where the rule has been followed:

(16) *Hanna dropped <u>that the</u> milk-carton

(17) That building is the tallest one in the city

Norwegian like English also has the definite article realized as prenominal free morphemes (den/det 'it'). The Norwegian articles are however also realized as suffixed bound morphemes (e.g. mann-<u>en</u> 'man <u>the</u>') (Delsing, 1993). Example (18) illustrates the difference between the Norwegian and English with the determiner being realized by using the suffixed bound morpheme:

(18) Mann-<u>en</u>-s oppdagelse
        Man-<u>DEF-GENITIVE</u> discovery
        '<u>The</u> man's discovery'

In Norwegian you also often have both realizations of the determining article, both before the noun itself as a free morpheme and attached to the noun as a suffixed bound morpheme (den mann-en 'the man-the'), a phenomenon referred to as the double definiteness construction (Delsing, 1993; Julien, 2005). Due to the double-definiteness phenomenon it is possible to have both a suffixed marking of definiteness and to use a demonstrative. A Norwegian equivalent to (16) could therefore be (19) where the suffixed article and the demonstrative have been underlined:

(19) Hanna mistet <u>den</u> melkekartong-<u>en</u>
        Hanna dropped <u>that</u> milk-carton-<u>DEF</u>
        'Hanna dropped that milk carton'

Another difference between the two language structures concerns noun phrases that are definite in Norwegian but which require no article in English. An example of the different noun phrase structure is underlined in (20). Examples (3) and (11) also include bare noun phrases in English which would have required a definite article in Norwegian.

(20) Bella var den fineste   jenta i   <u>by-en</u>

      Bella was the   prettiest girl   in <u>town-DEF</u>

     'Bella was the prettiest girl in <u>town</u>'

2.4.3 Possessive noun phrases

According to Hasselgård et al, (2012) the "Possessive determiners specify the head noun by relating it to the speaker or the addressee" (2012: 127). As was the case with English determiners, possessive pronouns ('my'/'your'/'his'/'her'/'our'/'your'/'their') also precede the noun. Examples of this are found in (21) and (22):

(21) <u>My glasses</u> broke in class

(22) I dropped <u>my son</u> off at college.

Norwegian possessive pronouns ('min'/'din'/'hans'/'hennes'/'vår'/'deres'/'deres') can both precede and succeed the noun and it is often more common that they succeed the noun (Delsing, 1993). Example (23) and (24) show the difference in structure between Norwegian and English:

(23) Alle menn elsker <u>mor-en sin</u>

    Every man loves <u>mother-DEF his</u>

    'Every man loves <u>his mother</u>'

(24a) Bild-et   viste   <u>den lykkelig-e   familien min</u>

    Photo-DEF showed <u>the   happy-DEF   family   mine</u>

    'The photo showed <u>my happy family</u>'

(24b) Bildet   viste en lykkelig familie

    Photo-DEF showed   a happy family

    'The picture showed a happy family'

Example (24a) also shows the use of a definite article (den 'the') in the same sentence as a possessive pronoun (min 'mine'). As can be noted in example (24a), and which is also the case for demonstratives, English possessive pronouns do not co-occur with the article. Again this can be accounted for by proposing that the article and the possessive occupy the same pre-nominal position. This also means that demonstratives and possessives occupy the same position and therefore cannot co-occur, like in (25):

(25) *this her house

As is seen in (23) and (24a) Norwegian usually includes both a possessive pronoun and a determiner in the same noun phrase due to the possible suffix-determiner position. The noun phrase in (24a) and (24b) show examples of how Norwegian adjectives are inflected by definiteness. They can also be inflected by number, gender and in the comparative/superlative (Julien, 2005). English adjectives are only inflected in the comparative/superlative (Huddleston and Pullum, 2002).

Another difference is that Norwegian possessive pronouns change based on whether or not the noun is plural or singular (Delsing,1993), while English possessive pronouns are invariant for number (Huddleston and Pullum, 2002). Examples (26a) and (26b) illustrate this:

(26a) Bøk-ene mine
        Books-DEF my
       'My books'
(26b) Bok-en min
        Book-DEF my
       'My books'

Furthermore in English, names and possessive pronouns cannot occur together while this is a possibility in Norwegian if the possessive pronoun occurs before the noun. This is shown in the incorrect English example (27a) and the correct Norwegian example (27b):

(27a) *That is Louisa her cat
(27b) Det er   Louisa <u>sin katt</u>
        That is Louisa <u>her cat</u>
       'That is Louisa's cat'

Norwegian has a succeeding variant of genitives where the preposition 'til' or 'to' is used as a genitive marker. The Norwegian 'til'-genitive has a specifying effect and it is important to separate this version of 'til' from the localizing preposition 'til'. Jon Erik Hagen (1998) illustrates this by using the example found in (28), where 'til' can be both the genitive 'til' and the localizing preposition 'til':

(28) Jeg glemte å poste brevet til Betty   (Hagen, 1998: 383)

    I   forgot to post letter-DEF to Betty

    'I forgot to post Betty's letter'

If it is the localizing preposition 'til', it suggests that the letter is for Betty to receive, open and read. If, on the other hand, it is a genitive 'til' then the letter could be linked to Betty in a different way As is seen in the correct English version of (28) the s-genitive has been used. However, the 'til'-genitive could be compared with the English 'of'-genitive construction. In English specifying 's'-genitive sentences can be paraphrased by using an 'of'-phrase seeing as the meaning of the 'of'-genitive is similar to that of the 's'-genitive (Hasselgård et al, 2012). Examples (29) and (30) show the similarities of the two structures:

(29) Alexander skjøt   far-en   til brud-en

    Alexander   shot   father-DEF to   bride-DEF

    'Alexander shot the father of the bride'

(30) Hal-en   til   katt-en   var bøyd

    Tail-DEF to cat-DEF   was crooked

    'The tail of the cat was crooked'

There are few restrictions on the use of the 'of'-construction, but in English the 's'-genitive is preferred with nouns referring to people and the 'of'-genitive is seldom used in front of a personal name (Hasselgård et al, 2012). Examples (31a) and (31b) illustrate the difference between Norwegian and English:

(31a) * The building of Peter was the tallest one in the city

(31b) Bygning-en   til Peter var den høyeste i by-en

    Building-DEF   to Peter was the tallest one in city-DEF

    'Peter's building was the tallest one in the city'

Norwegian also makes use of the s-genitive but there is a slight difference between the two languages. In English the s-genitive is signaled by the inflectional ending s and an apostrophe; in Norwegian it is written without the apostrophe. As is seen in example (32):

(32) Student-ene   beundret Sarahs   bilde   av Rembrandt

    Students-DEF admired   Sarah-GENITIVE picture by Rembrandt

    'The students admired Sarah's picture by Rembrandt'

Furthermore the 's'-genitive tends to express semantic relationships associated with subjects; the 'of'-construction is usually used in connection with objects, like in (33):

(33) The enemy's destruction of the city

A genitive construction can also encapsulate a situation which might also be expressed by a clause, like the example in (33). Another difference between the two genitive-types is that the s-genitive tends to express information that is given (or taken for granted) in the context, while of-constructions more typically express new information (Haegeman and Gueron, 1999).

2.5 Overview Theory

L2 users differ from L1 users in several ways: they already know at least one language, they acquire the language later than the L1 speakers, and they will never become as proficient as an L1 speaker. As a result they will make certain errors often as a result of transfer from their L1. Similarities between languages can help and hinder the acquisition of a second language. Negative transfer from the L1 to the L2 among more proficient L2 users often occur when the elements are quite similar in the two languages but include certain differences. Norwegian and English nominal phrases have many similarities but also differ in some aspects. Some of the areas that include both similarities and differences are bare noun phrases, determiner noun phrases and possessive noun phrases.

3.0 Method

The aim of this study was to take a look at the extent to which Norwegian L1 speakers are influenced by their first language when using and evaluating English. Twelve Norwegian 16-year-olds, attending their first year of Norwegian high school (VG1); and twelve Norwegian Master-students attending the Norwegian University of Technology and Science (NTNU), with English as their master subject, did an acceptability judgment test of 72 English sentences (Appendix 5). 36 of these sentences were the actual testing sentences including English noun phrases focusing on three different categories: determiners, possessives and bare noun phrases. The results from the two different groups were then compared. The general idea was to try to investigate the extent to which the participants were influenced by their first language when deciding which of the L2 sentences they deemed to be more or less acceptable. The NTNU-students were expected to be more proficient than the VG1-students. The VG1-students were therefore expected to show greater traces of transfer from the L1 in their L2 judgments than the NTNU-students.

3.1 Acceptability judgment test:

There are many similarities between English and Norwegian noun phrases but also certain differences. The Norwegian L1 speakers were therefore expected to make certain mistakes when using English noun phrases. To investigate if there is any back-up for this claim there are many methods that could have been used, but due to several factors it was concluded that this project would use a quantitative method in the form of an acceptability judgment test. A quantitative method is a numerical method which allows the use of a larger number of participants, leading to the possibility of comparing their results to each other focusing on the set variables: bare noun phrases, determiner phrases and possessive phrases.

An acceptability judgment test asks participants to judge whether or not a set string of words form an acceptable sentence in a given language (Schutze and Sprouse, 2012: 2). As Schutze and Sprouse (2012), Sprouse and Almeida (2012), and Dabrowska (2010) note the acceptability judgment task used to be called "grammaticality judgments" where the idea was that the participant would judge the grammaticality of each sentence based on different variants of the test. However, Chomsky (1965) argues that it should be called "acceptability judgments" instead. He concluded that grammaticalness is only part of all the factors that affect the process of determining whether or not a sentence or phrase is acceptable or not. Other factors that also affect acceptability judgments regard the likelihood of a sentence to be produced in an actual discourse, and if they sound clumsy or natural (Chomsky, 1965: 11).

The sentences can also vary in level of lexical and syntactical difficulty which can affect the judgments. If a sentence is deemed lexically difficult it will make use of rare or longer words. If a sentence is syntactically difficult it will typically be long and complicated (Klare, 1963).

Acceptability judgment experiments are based on the participants' perception of the different sentences. As Schutze and Sprouse (2012) point out it is impossible to directly measure the perceptions that are in the minds of the participants. Therefore it is necessary to make use of certain indirect measurement methods where the participants can report some of their perceptions, often by using some kind of scale (Schutze and Sprouse, 2012: 3). For this project the participants will be asked to judge the sentences based on a Likert-scale. One version of the Likert-scale asks participants to judge the acceptability of sentences compared to two given sentences A and B being placed at different ends of the scale (Dabrowska, 2010) However, this has been believed to be a harder judgment to make for the participants than to place a sentence on a given scale where one end is clearly stated as more negative and the other more positive. Dabrowska (2010) reports that one of the advantages with using a Likert-scale with set values is that it is more natural than other types of measurement scales. This is because the participants only have to decide if they think the sentence is "good" or "bad" instead of different degrees of "better" or "worse" than other sentences, which can be more complicated to judge. The Likert-scale version of an acceptability judgment test is a quantitative method being interested in the size of the differences between the responses (Schutze and Sprouse, 2012: 7). There are certain problems with this method. For one it can be hard to judge the exact value of the scale and the distance between the different given numbers. Furthermore the Likert-scale might not be sensitive enough to pick up on contrasts between the judgments and differences that occur between the conditions could be ignored (Dabrowska, 2010, Schutze and Sprouse, 2012).

Another point that is worth considering is the expectations of the participants. As Dabrowska (2010) concludes, the sentences that are used in the acceptability judgment test can be more or less expected in "real life". The backgrounds of the participants are somewhat different, with the master students having studied English for a great deal longer than the VG1-students, and their expectations may therefore vary. The master-students might expect that the acceptability judgment test is looking for something in particular if not for any other reason than that they know what it means to be doing a master-project. The VG1-students could be expected to have fewer expectations regarding the purpose of the acceptability judgment test and may also be less concerned with the analysis of the chosen sentences in the

test. There can therefore be reasons to believe that the intuitions of the master-students and the VG1-students will differ which can affect the results (Dabrowska, 2010), especially since the master-students can have picked up on certain judgments from the literature (Schutze, 1996).

Sprouse and Almeida (2012) report that one of the main reasons for the criticism of the acceptability judgment has been its reported tendency to be unreliable due to producing results that show false negatives: report no difference between the tested conditions although a difference actually exists; and false positives: report a difference between the tested conditions when there is no true significant difference between them. False positives (also called type 1 errors) are seen as a more serious consequence of the method given the role of positive results in the development of scientific theories: "scientific theories are constructed from differences between conditions (i.e., positive results), not invariances between conditions (i.e., negative results)" (Sprouse and Almeida, 2012:611). However, Sprouse and Almeida (2012) tested different methods that have been used and came to the conclusion that even though there have been certain failures, the number of tests that have been correct and not shown a necessary false-positive result made the failures comparably small and that the test therefore could be used.

There are several advantages to using the acceptability judgment test. Practical reasons for using the acceptability judgment test to gain data are that it does not cost much, information can be gained from a few test subjects, it does not require a laboratory or any special type of equipment, it can easily be directed at the field in which this thesis focuses on, and, perhaps most importantly given the time limit, it is not that time demanding (Schutze, 2012). Furthermore the acceptability judgment test has some advantages compared to for instance using spontaneous data. With spontaneous data one can expect a certain amount of production errors that the participants themselves would later deem unacceptable which an acceptability judgment test could prove (Schutze and Sprouse, 2012).

3.2 The participants

24 Norwegian speakers participated in the study: 12 16-year-olds from a Norwegian high school and 12 Master-students studying English.

The 16-years-old participants came from a single VG1-class that had been pre-selected by the school they attended. From this class 15 students volunteered to do the set tests. English is a compulsory subject in VG1 and therefore it was expected that the level of

proficiency in English would vary more than the level of proficiency among the NTNU-students. The tests were originally calculated to take approximately 45 minutes per student.

The Master students were of different ages but they were on average 24 years old. Seeing as they have all chosen English as their master-subject their level of proficiency was expected to be quite high. The different master-student participants were recruited by first being contacted at school during different lectures and then through e-mails/text-messages. The important factors were that they were studying English at a master-level, that they were Norwegian L1-speakers and that English was their second language. This excluded non-native Norwegian-speakers and/or bilinguals. 15 students volunteered to do participate in the project.

To be allowed to participate in the study the VG1-participants had to submit a form of consent signed by their parents as well as themselves given the factor that they were under 18 years old (Appendix 6) The school also agreed to the experiment being conducted at their school during school-hours. Out of the 15 that had volunteered in advance, 14 showed on the actual testing-day. Out of these, 12 had gotten a signature from their parents. My Master project required 12 participants from each group so therefore the remaining 12 were used as testing candidates.

The master students also submitted a form of consent signed by themselves (Appendix 7) being over 18. The study has been reported to and accepted by the Norwegian Social Science Data Service (NSD). To ensure that no participant could be identified, the students were given a participant number. The lists linking students and names together were kept separately and could only be viewed by myself and my supervisors. Thus, in the analysis of the results, the results were not linked to any names but only to the individual numbers. Out of the 15 participants who volunteered, one was excluded due to being bilingual, and two were excluded due to misunderstanding the rating system of the acceptability judgment test.

3.3 Materials and procedure

The acceptability judgment test was conducted on the same days as the grammar- and vocabulary pre-tests, doing all tests during one sitting. To ensure that the aim of the testing would not interfere with how the participants evaluated the different English sentences, the participants were not informed of this till after they had all conducted the necessary tests. They were informed that it was connected to second language acquisition and how they judged the different English sentences.

Part 1 – background-information and pre-tests:

Instructions regarding the first part were given orally. The students were informed to find their personal computers and a pen. Before doing the standard pre-tests the students were asked to do a background-questionnaire in paper-format. Most of these questions were close-ended but some of them were open-ended. The main interest in the background-questionnaire aimed at depicting, to a certain extent, relevant factors in the participants' English learner background in terms of second language acquisition. This would then be used to possibly exclude participants that were not suitable for the purposes of this thesis. The questionnaire therefore included questions about factors like possible diagnoses relevant to language, whether or not they receive any language input, and knowledge of other languages that could have affected their language learning process.

In addition to the background questionnaire the participants were asked to do two standard tests: one focusing on grammar and one on vocabulary. The standard vocabulary- and grammar pre-tests had to be conducted on computers seeing as they were linked to online-sources. The vocabulary-test (http://dynamo.dictionary.com/placement/level) consisted of 10 multiple choice questions where the participants were asked to choose the correct explanation of a given word. The bottom showed how many questions the candidate had done and out of how many. This made it easier to supervise and calculate when a candidate could be expected to finish the assignment. The task resulted in an estimated amount of words the participant was expected to know. The vocabulary-test presented the participants with different levels. The VG1-students did the "high school" level and the NTNU-students were asked to do the "college and beyond"-level. When choosing the grammar-test it was first considered to let the students do different levels here as well but seeing as the level classification was not as evident here as with the vocabulary-test, and given the factor that the results would be compared to each other, it was concluded that the two groups of students would do the same grammar-test:

(http://www.cambridge.org/other_files/Flash_apps/inuse/AdvGramTest/AdvGramIndex.htm). The grammar-test is rather advanced which became evident on the VG1 testing-day seeing as the VG1-students took a great deal longer than the master-students to complete the task. The grammar-test consisted of 50 questions and like the vocabulary-test the participants were asked to find the correct answer out of four alternatives. Here the correct alternatives would fill in a gap in the given sentences and make them grammatically correct. The result was presented by showing the number of correct responses out of the 50 questions, for instance

25/50. To avoid having the participants looking at other participants' answers the testing was arranged so that every other student would start doing the vocabulary-test and every other student would start with the grammar-test. The results of both tests were controlled and written down by me to ensure that the right results were given and that the correct results were attached to the correct participant number.

The vocabulary-test provided the two groups with different choices of level: one for the vg1-students and one for the master-students. The grammar-test included 50 questions and the vocabulary-test included 10 questions.

Part 2 – the acceptability judgment test:
After completing the background questionnaire and both of the standard pre-tests the participants were asked to continue directly with the acceptability judgment test. The first page included written instructions on the procedure of the test. The candidates were informed both orally and in writing to ensure that as many as possible had understood the instructions before doing the actual test. To avoid any misunderstandings the candidates were also presented with five testing-sentences using the same acceptability scale as the actual test. They were instructed to do the five testing-sentences and show how they had judged them before doing the actual test. This was to increase awareness of the task itself but it was also supposed to give an indication of understanding or confusion beforehand so that, if necessary, the different participants could receive further explanation of the task at hand. The candidates were all told to judge the phrases they were presented with on a Likert-scale from 1 to 5 where only the endpoints, 1 and 5, were labeled. 1 deemed the sentence unacceptable and 5 deemed it acceptable.

The VG1-Students:
The VG1-students did the tests simultaneously seeing as they had been used to this in the past and because it would be too time-consuming if they were all going to be tested at different times. The participants from VG1 were not permitted to communicate with each other during the testing. The testing-time was estimated to last approximately 45 minutes but the participants were not given a time limit. Due to some technical problems on the testing-day most of the VG1-participants spent more time finishing with all of the required tasks than what was expected. The grammar-test proved to be the biggest time-consumer. The participants had problems opening the link and it had to be reloaded several times before it would work. Given the level of advancement most of the VG1-students spent the major part

of their time going through the grammar-test. They went through the actual acceptability judgment test with the expected pace.

The NTNU-students:
Gathering participants to represent the NTNU-students was a more complicated process than with the VG1-students. As a result it was necessary to go through with the tests whenever it would suit the master-students individually. The students would still do all the tests and the questionnaire in one sitting but the different students would conduct the tests at different times. They were not permitted to talk to any other participants during the tests; for some as a result of doing it in a room with only me; for some as a result of being informed that the participation demanded silence during the testing-process. There were no technical problems during the testing of the master-students and therefore none spent more time than expected.

3.4. Analysis
After collecting all the data, it was written in Excel to get an overview and to prepare it for further analysis. The data was transferred to Predictive Analytics SoftWare (PASW), a software package used for statistical analysis, to carry out the necessary tests to properly inspect the results. This lay the basis for the calculations of the descriptive statistics which could further be used to look at potential patterns and connections of the data sets. PASW was also used to check the significance of the potential patterns presented by the data.

4.0 Results

The data was put into both Excel and PASW for calculations and analysis. In Excel the mean ratings of the unacceptable and the acceptable sentences were calculated per student and per sentence. Based on the mean scores it was possible to construct different descriptive graphs. In PASW the main interest was to calculate whether or not there was a significant difference between the groups, to check the standard deviation between the mean scores of the groups, to check for possible errors and to see if there is a significant correlation between the results of the pretests and how the students rated the sentences. The results of the vocabulary test and the grammar test were inspected in PASW. The data was first checked for descriptive statistics and frequencies for all the different sentences (Appendix 3). The mean ratings of the different sentences where then used alongside the scores of the vocabulary test and the grammar test to calculate the correlation between "group" and results by doing a multivariate linear test. School was the fixed factor and the mean ratings of the different acceptability judgment groups, the results of the vocabulary test and the results of the grammar test were the dependent variables.

4.1 The vocabulary and grammar tests

The average scores on the standard vocabulary and grammar pretests for the two different groups are presented in table 1:

Table 1: Average score on pretests

	school	Mean	Std. Deviation	N
	VG1	27.4167	7.15362	12
Grammar	NTNU	41.5000	4.66125	12
	Total	34.4583	9.30628	24
	VG1	16290.0000	7142.60411	12
Vocabulary	NTNU	42738.1667	4669.53509	12
	Total	29514.0833	14741.34674	24

Note: Grammar= the number of correct responses out of 50, Vocabulary = the estimated number of words the participant knows, School = which group the participants belong to, Mean = the average score per group, Std. Deviation = how much variation or dispersion that exist from the average score, N = number of participants.

Table 1 reveals that the average scores of the VG1-students are lower on both pretests compared to the averages scores of the NTNU students. The variation of the average results of the VG1-group is also bigger on both pretests compared to the variation of the average results of the NTNU-students. This means that there is a bigger difference within the VG1-group than within the NTNU-group.

4.2 The acceptability judgment test

The acceptability judgment test consisted of 72 sentences that were all rated on a scale from 1 to 5. The test was divided into different categories where 36 sentences were acceptable and 36 sentences were unacceptable. The acceptable sentences could in theory all be rated at 5 and the unacceptable sentences could all be rated at 1. Therefore, to get a better idea of the actual ratings compared to the expected outcome, the average scores of both groups have been calculated separately. Table 2 shows the average ratings per group of participants and per group of acceptability.

Table 2: average ratings on the acceptability judgment test

	school	Mean	Std. Deviation	N
Unacceptable	Videregående	1.9977	.26865	12
	NTNU	1.7153	.46498	12
	Total	1.8565	.39841	24
Acceptable	Videregående	4.1325	.31932	12
	NTNU	4.6025	.27896	12
	Total	4.3675	.37896	24

Note: Mean = average rating per group, Std. Deviation = level of variation from the average rating, N = number of participants, Unacceptable = the 36 unacceptable sentences of the acceptability judgment test, Acceptable = the 36 acceptable sentences of the acceptability judgment test.

Table 2 illustrates the average ratings the different groups have given all of the 36 acceptable and all of the 36 unacceptable sentences. The NTNU-students have given the acceptable sentences an average rating of 4.6025. The VG1-students have given an average rating of 4.1325 on the acceptable sentences. The level of variation of the average rating is smaller within the NTNU-group (0.27896) than within the VG1-group (0.31932). The unacceptable sentences have been given a higher average rating of 1.9977 by the VG1-students compared to the average rating of 1.7153 by the NTNU-students. There is a higher level of variance from the average score among the NTNU-students (0.46498) compared to the VG1-students (0.26865).

Table 3 illustrates the correlation between the independent variable "group" and the ratings of the different groups of the acceptability judgment test, and the results of the pretests. To evaluate whether or not there was a general connection between how the different participants performed and which group they belonged to, the data was evaluated by doing four multivariate analyses of variance, MANOVAs, namely Pillai's trace, Wilk's lambda, Hotelling's trace and Roy's largest root.

Table 3: the results of the Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	.870	31.772[a]	4.000	19.000	.000
Wilks' lambda	.130	31.772[a]	4.000	19.000	.000
Hotelling's trace	6.689	31.772[a]	4.000	19.000	.000
Roy's largest root	6.689	31.772[a]	4.000	19.000	.000

Note: All test the multivariate effect of school. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

Pillai's trace, Wilk's lambda, Hotelling's trace and Roy's largest root, all compare the mean ratings of different groups to see if there is a difference between the groups, but operating with the null hypothesis that there is no difference. If the level of significance (Sig.), or the p-value, is higher than 0.05 the result is usually said to be insignificant and therefore no valid difference (Tavakoli, 2012, Newsom, 2012). The MANOVAs looked at one independent variable, school, comprised of two levels, VG1 or NTNU; and multiple dependent variables, in this case the results of the unacceptable acceptability judgment test, the acceptable acceptability judgment test, the vocabulary test and the grammar test. 24 participants were tested for this project. It is recommended to use at least 30-35 participants for a Likert-scale acceptability judgment test (Schutze and Sprouse, 2012). Wilk's lambda is the test that is most referred to. However, Pillai's trace is more robust or trustworthy with smaller samples and gives greater protection for type 1 errors, and is therefore more important in this analysis. Both the value of Pillai's trace and the value of Wilk's lambda are shown from 0 to 1, but unlike with Wilk's lambda, the higher the value of Pillai's trace the better (Tavakoli, 2012, Newsom, 2012). Thus the high value (.870) indicates that "group" can account for about 87 % of the variance in the dependent variables. However, all four different MANOVA tests show a high level of significant correlation (P <.01) between "group" and the results of the tests. The MANOVAs therefore show that there is a difference between the groups but it does not tell

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where the difference lies. There can be a difference between the composed set without necessarily being a difference between the variables that make up the composed set.

To be able to look at the correlation between "group" and the different variables making up the composed set, the data was further inspected by doing separate univariate tests (Appendix 1). These tests showed that there was an overall high significance between the group the participants belonged to and how they rated the acceptable sentences with $p = 0.001$ <0.01. There was however no correlation between "group" and the ratings of the unacceptable sentences with $p = 0.082 > 0.05$. The pretests both showed a significance of $p = 0.00$ <0.01 and thus there was a high level of correlation between the group the participants belonged to and how well they did on the grammar and vocabulary tests. Thus there was a recognizable difference between performance of the groups on the acceptable ratings and the two pretests, while the ratings were more similar on the unacceptable part.

To test the correlation between the results of the tests, the data was compared by using a Pearson correlation test, testing the 2-tailed significance of the correlation between the acceptable mean ratings, the unacceptable mean ratings, and the results of the grammar- and vocabulary tests. The results are shown in table 3. The Pearson correlation test is a parametric statistical test looking at the strength and variety of the relationship between two variables. It measures the degree of which a linear relationship exists between a dependent, x, and independent, y, variable.

Table 3: Correlations between tests

		Acceptable	Unacceptable	Grammar	Vocabulary
Acceptable	Pearson Correlation	1	-.234	.702[**]	.796[**]
	Sig. (2-tailed)		.272	.000	.000
	N	24	24	24	24
Unacceptable	Pearson Correlation	-.234	1	-.524[**]	-.430[*]
	Sig. (2-tailed)	.272		.009	.036
	N	24	24	24	24
Grammar	Pearson Correlation	.702[**]	-.524[**]	1	.869[**]
	Sig. (2-tailed)	.000	.009		.000
	N	24	24	24	24
Vocabulary	Pearson Correlation	.796[**]	-.430[*]	.869[**]	1
	Sig. (2-tailed)	.000	.036	.000	
	N	24	24	24	24

Note: *Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level.

Table 3 shows that there is a significant correlation between acceptable ratings and the scores of the grammar test ($p = 0.00 < 0.01$) and the vocabulary test ($p = 0.00 < 0.01$). There is no significant correlation between the acceptable ratings and the unacceptable ratings of the acceptability judgment test ($p = 0.272 > 0.05$), thus there is no linear relationship between the two testing categories. There is a high correlation between the ratings of the unacceptable sentences and the scores of the grammar test ($p = .009 < 0.01$) and there is a significant correlation at the 0.05 level between the unacceptable ratings and the vocabulary test ($p = .036 < 0.05$). There is also a significant correlation between the two pretests ($p = .000 < 0.01$). This suggests a pattern between how the participants rated the acceptability judgment test and how they scored on the pretests.

4.2.1 Overview of the two main categories: acceptable and unacceptable
The acceptability judgment test looked at different categories of interest but had two main categories: the acceptable sentences and the unacceptable sentences. Another main split was between the control sentences and the sentences belonging to the categories of interest which were presented in the theory part.

Figure 1 presents the average ratings of the different acceptable sentences given by all the participants. Sentences 19 to 36 are among the acceptable control sentences. Out of these sentences only sentence 31 has an average rating lower than 4 and thus most of the acceptable

control sentences have been deemed at 4 on the acceptability scale. (For an overview of the individual mean ratings of the participants see appendix 4)

Figure 1: The result of the Likert-scale ratings on the acceptable sentences
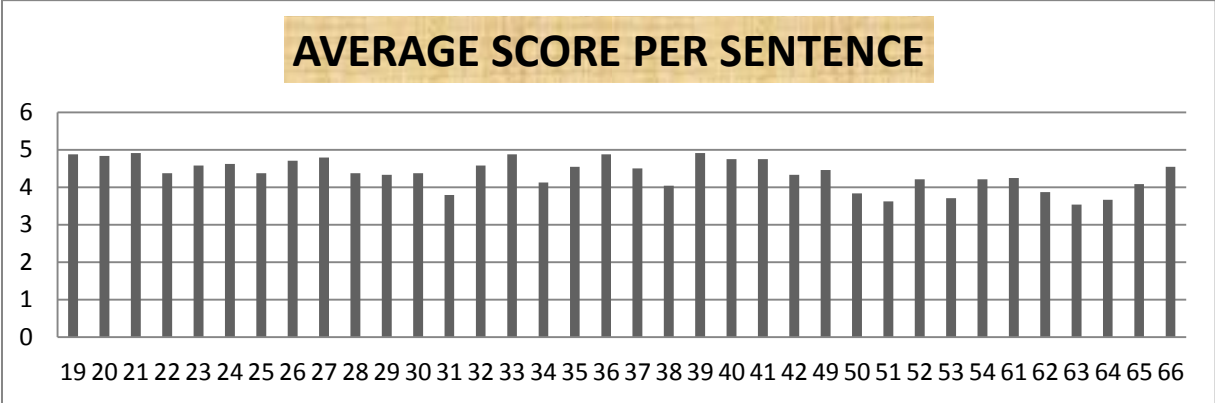
Note: The figure shows the average ratings on a scale from 1 to 5 of the 36 acceptable sentences. The numbers indicate the number in the total overview (Appendix 5).

Figure 2 presents the average rating scores all the participants have given the different unacceptable sentences. Sentences 1 to 18 are all part of the unacceptable control group of sentences. Out of these sentences 10, 13, 15 and 18 have been rated higher than 2.0 on average. Sentences 13 and 18 have been rated above 3.5 on average. (For an overview of the individual mean ratings of the participants see appendix 4.) Most of the control sentences have therefore been rated within expectations.

Figure 2: Results of the Likert-scale ratings on the unacceptable sentences
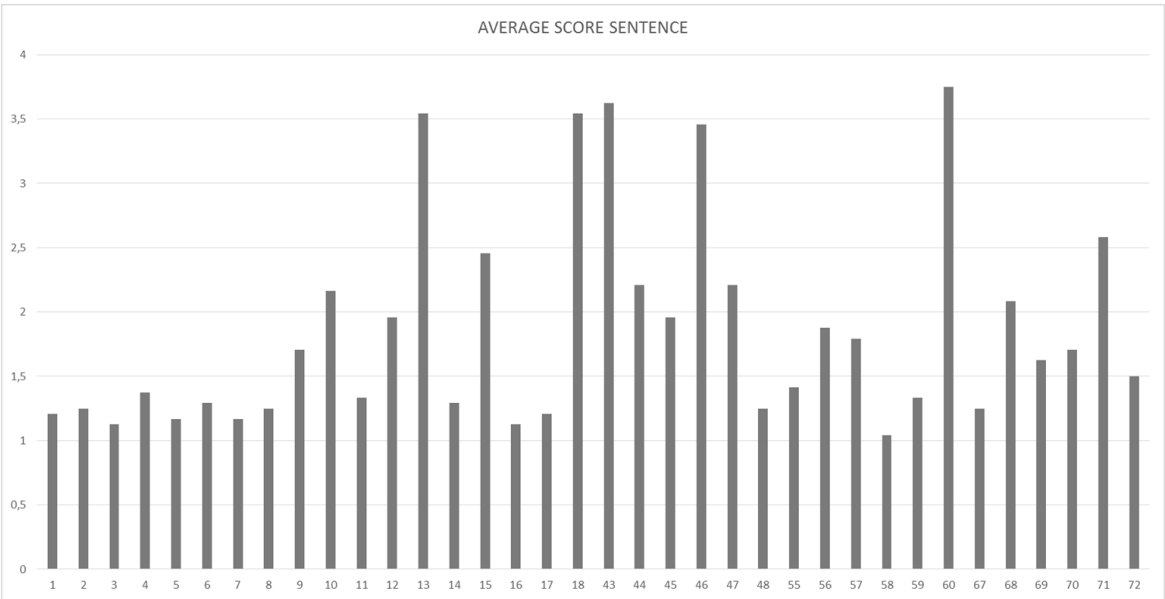
Note: The figure shows the average ratings on a scale from 1 to 5 of the 36 unacceptable sentences. The numbers indicate the number in the total overview (Appendix 5).

4.2.2 Category 1: Acceptable bare noun phrases

Figure 3: The results of the Likert-scale ratings on the acceptable bare noun phrases
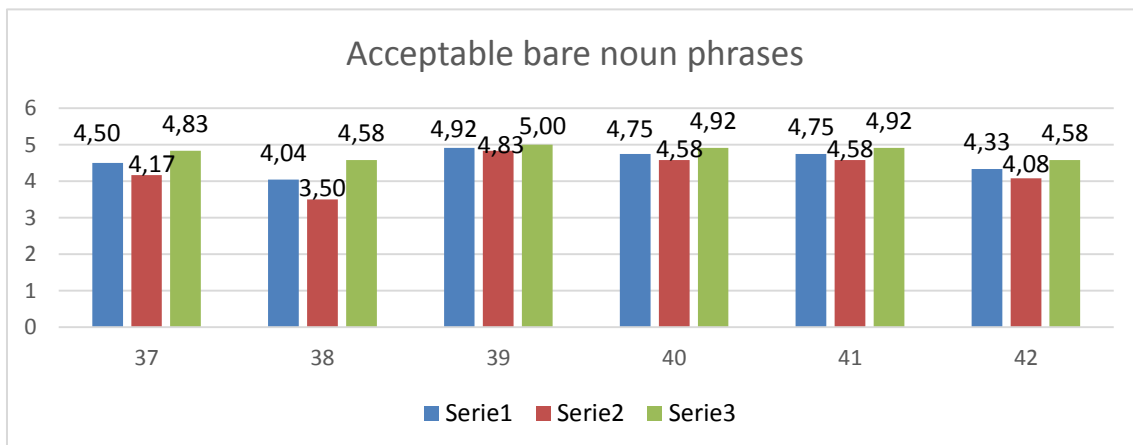
Note: Serie 1 = the average ratings by the participants in total, Serie 2 = the average ratings by the VG1-students, Serie 3 = the average ratings by the NTNU-students, 37-42 = the number of the sentences in the total overview (Appendix 5).

The sentences in category 1 were rated at 4.806 by the NTNU-students and 4.292 by the VG1-students, where the standard deviation (appendix 2) was measured at 0.23391 for the NTNU-students and 0.29409 for the VG1-students. Figure 3 illustrates the different ratings given by the different groups of participants and it also shows the combined average rating. The univeriate linear ANOVA test looked at the pairwise relationship of "group" and the ratings of category 1. It showed a correlation level of $p = 0.00 < 0.01$ (Appendix 1) between the mean ratings of the sentences in category 1 and the group the participants belonged to. In other words there was a pattern between the group the participants belonged to and how they rated the sentences in category 1. The NTNU-students have generally rated the sentences in category 1 higher than the VG1-students but the one that shows the greatest difference between the groups in this category is sentence 38. The NTNU-students rated sentence 38 at 4.58 while the VG1-students rated sentence 38 at 3.50. The specific results (Appendix 3) show that 10 of the NTNU-students have given the sentence a 5 on the acceptability scale while five VG1-students have given it a 3 and two VG1-students have rated it a 2 on the scale.

4.2.3 Category 2: Unacceptable bare noun phrases

Figure 8: The results of the Likert-scale ratings on the unacceptable bare noun phrases
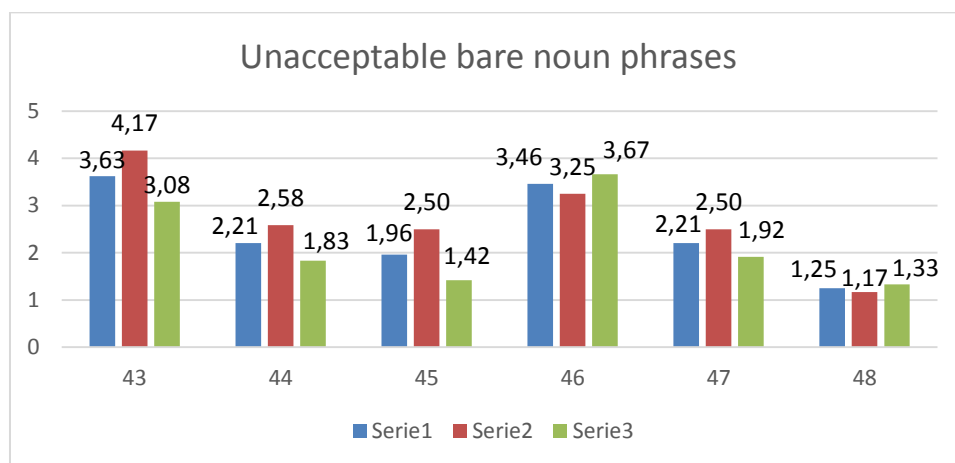
Note: Serie 1 = Average ratings by all participants, Serie 2 = average ratings by VG1-students, Serie 3 = Average ratings by NTNU-students, 43-48 = the number of the sentence in the overview (appendix 5).

Figure 8 illustrates the mean ratings of the sentences belonging to category 2. The sentences have on average been rated higher by the VG1-students (2.69) compared to the NTNU-students (2.21), although the standard deviation (Appendix 2) is higher for the NTNU-group (0.58225) than the VG1-group (0.46511). The correlation test between "group" and the ratings of category 4 showed a significant result of $P=0.034<0.05$ (Appendix 1). This means that there is a significant difference in rating scores of category 2 between the groups. Except for sentences 43 and 46 all the sentences have been rated below 3 by the VG1-students and 2 by the NTNU-students. Sentence 43 has received the highest average rating by the VG1-students with 4.17 where the NTNU-students have given the sentence an average rating of 3.08. The specific results (Appendix 3) show that four VG1-students and four NTNU-students have rated the sentence at 4 on the scale while five VG1-students and one NTNU-student have rated the sentence at 5 on the scale. Sentence 46 has on the other hand been rated higher by the NTNU-students with 3.67 compared to the average rating of 3.25 by the VG1-students. The specific results (Appendix 3) show that five of the NTNU-students and 4 of the VG1-students rated sentence 46 at 5 on the scale and two NTNU-students and two VG1-students rated the sentence at 4 on the Likert-scale.

4.2.4 Category 3: Acceptable determiner noun phrases

Figure 4: The results of the Likert-scale ratings on the acceptable determiner noun phrases

Note: Serie 1 = the average ratings by the participants in total, Serie 2 = the average ratings by the VG1-students, Serie 3 = the average ratings by the NTNU-students. 49-54 = the number of the sentence in the overview (Appendix 5).

The NTNU-students have generally rated the sentences in category 3 higher than the VG1-students. The NTNU-students have a mean rating of 4.347 and the VG1-students have a mean rating of 3.667. The standard deviation (Appendix 2) was higher among the NTNU-students (0.5244) than between the VG1-students (0.4020). The ANOVA test (Appendix 1) showed a correlation between "group" and mean ratings of category 3 with P=.002 (<0.01), thus indicating a linear relationship between "group" and results of category 3. Sentences 50, 51 and 53 have been rated lower than 4. Sentence 50 shows that the NTNU-students and the VG1-students have on average rated it equal (3.83), where four VG1-students and two NTNU-students have rated the sentence at 3 and one VG1-student and two NTNU-students have rated it at 2. Sentences 51 and 54 show the highest level of variance between the two groups. The VG1-students have a mean rating of 2.83 on sentence 51 and an average rating of 3.50 on sentence 54. The NTNU-students have given a mean rating of 4.42 on sentence 51 and 4.92 on sentence 54. The specific results (Appendix 3) show that only one VG1-student have rated sentence 51 at 5 on the scale, while six of the VG1-students have rated the sentence at 3 and three has rated it lower than 3. Only two NTNU-students have rated the sentence lower than 4 on the scale. The specific results (Appendix 3) also show that 11 of the NTNU-students have rated sentence 54 at 5 on the scale and one have rated the sentence at 4 on the scale. In comparison only two VG1-students have rated the sentence at 5 on the scale. Five VG1-students have given the sentence a 4. The specific results of sentence 53 show that

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seven of the VG1-students have rated the sentence at 3 or lower, while two NTNU-students have done the same.

4.2.5 Category 4: Unacceptable determiner noun phrases
Figure 9: The results of the Likert-scale ratings on the unacceptable determiner noun phrases
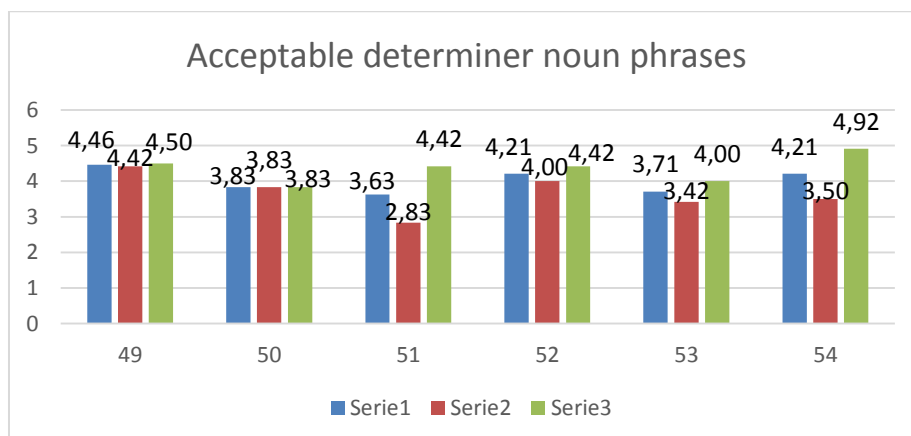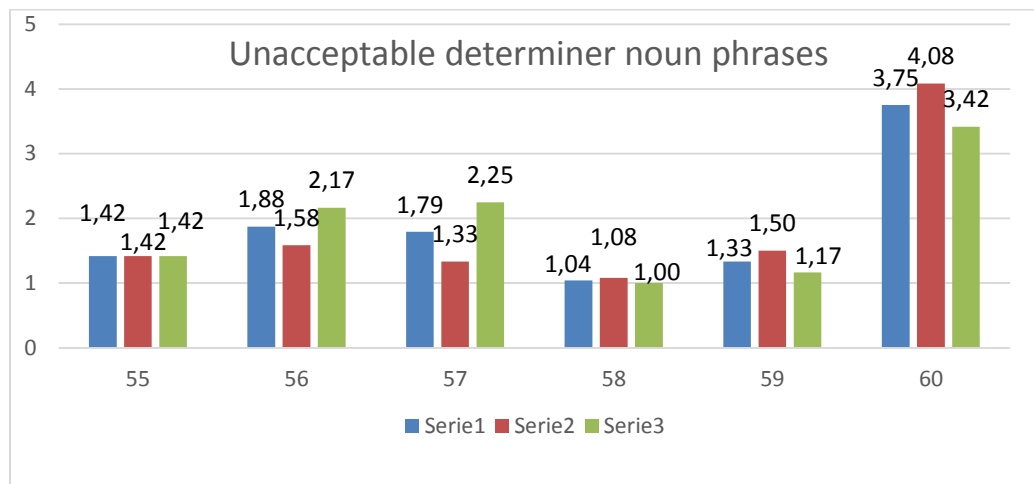

Note: Serie 1 = average ratings by all participants, Serie 2 = average ratings by the VG1-students, Serie 3 = average ratings by the NTNU-students, 55-60 = the number of the in the total overview (appendix 5).

Figure 9 shows that sentences 55, 56, 57, 58 and 59 all have mean ratings under 2. The sentences in category 4 have been given a slightly higher mean rate by the NTNU-students (1.903) than the VG1-students (1.833). The standard deviation (Appendix 2) is higher for the NTNU-students (0.6531) than the VG1-students (0.2357). The ANOVA-test (Appendix 1) found no significant correlation between "group" and the ratings of the sentences in category 5 with P=0.732>0.05. There is therefore no linear relationship between "group" and ratings, and the ratings are therefore more equally distributed between the groups. The graphs in figure 9 illustrates this by showing that sentences 58, 59 and 60 have been rated lower by the NTNU-students compared to the VG1-students, sentences 56 and 57 have been rated higher by the NTNU-students compared to the VG1-students and sentence 55 has been rated equally high by both groups. The specific results (Appendix 3) show that none of the VG1-students have rated sentences 56 or 57 at 5 on the Likert-scale while one NTNU-student rated sentence 56 at 5 and three NTNU-students rated sentence 57 at 5. Sentence 60 has been rated above three by both groups and has been given a mean rating of 3.42 by the NTNU-students and 4.08 by the VG1-students. Half of the VG1-students and half of the NTNU-students rated sentence 60 at 4 on the scale. Four VG1-students and one NTNU-student rated the sentence at 5 on the scale.

4.2.6 Category 5: Acceptable possessive noun phrases

Figure 5: The results of the Likert-scale ratings on the acceptable possessive noun phrases
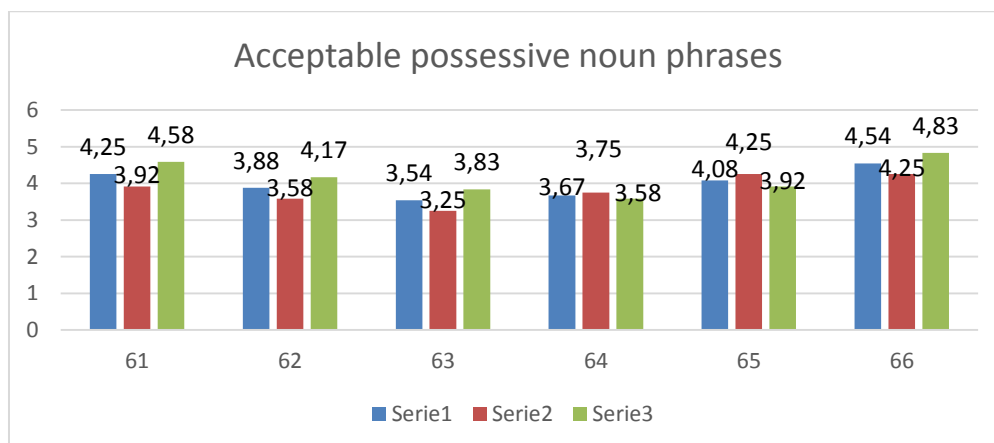
Note: Serie 1 = average ratings per sentence, Serie 2 = average ratings by the VG1-students, Serie 3 = average ratings by the NTNU-students, 61-66 = the number of the sentence in the overview (Appendix 5).

The correlation between "group" and the mean ratings of the sentences in category 5 is calculated to P =0.212 (Appendix 1) and thus the ratings of category 5 are more similar between the groups. Although the NTNU-students have generally rated the sentences in this category higher than the VG1 students with a mean rating of 4.153 compared to a mean rating of 3.833, the standard deviation results (Appendix 2) show that the NTNU-group has a higher level of variance (0.70874) within the group than the VG1-group (0.48721). Furthermore sentences 64 and 65 have been rated slightly higher by the VG1-students (3.75 and 4.25) than by the NTNU-students (3.58 and 4.17), thus showing that the ratings are more equally distributed. The specific results (Appendix 3) show that sentence 64 has been rated below 3 by three NTNU-students and one VG1-students, and that two NTNU-students and three VG1-students rated it at 3 on the scale.

4.2.7 Category 6: Unacceptable possessive noun phrases

*Figure 10*: The results of the Likert-scale ratings on the unacceptable possessive noun phrases
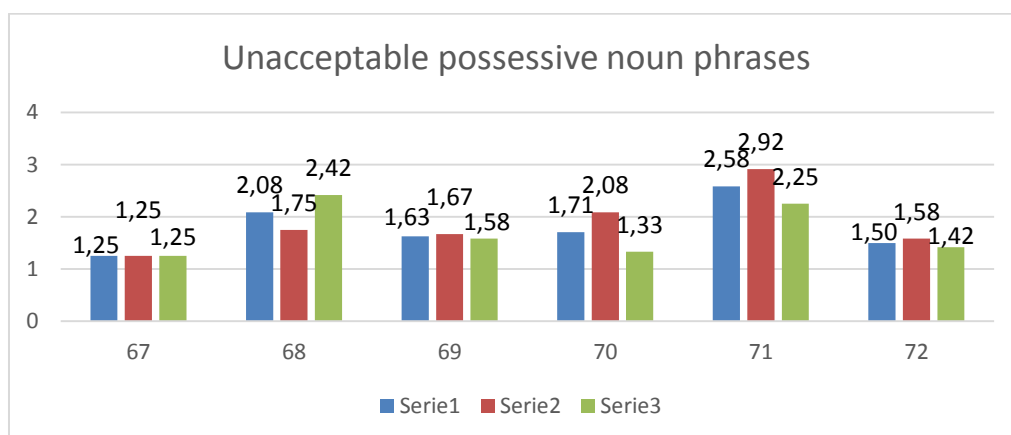
Note: Serie 1 = average ratings by all participants, Serie 2 = average ratings by VG1-student, Serie 3 = average ratings by NTNU-students, 67-72 = the number of the sentence in the total overview (appendix 5).

As is shown in figure 10 all sentences belonging to category 6 have mean ratings lower than 3. The NTNU-students rated the sentences at 1.71 thus they have generally rated them slightly lower than the VG1-students who gave a mean rating of 1.88. The standard deviation (Appendix 2) between the results of the NTNU-group and their mean rating was 0.69676 and the standard deviation for the VG1-students was 0.53241, thus there is a greater level of variance within the NTNU-group. The ANOVA-test (Appendix 1) showed no significant correlation between "group" and ratings with P=0.517 >0.05 indicating that the results between the groups are more similarly distributed. Sentence 71 has received the highest mean rating of 2.58 by both groups, 2.92 by the VG1-students and 2.25 by the NTNU-students. Most of the ratings given by the NTNU-students on sentence 71 were below 3 although there is one 4 and one 5. Five VG1-students have rated the sentence at 4 on the Likert-scale. Sentence 68 was given a mean rating of 2.08 by both groups, 1.75 by the VG1-students and 2.42 by the NTNU-students, and was therefore given higher ratings by the NTNU-students than by the VG1-students. The specific results (Appendix 3) of the acceptability judgment test show that two NTNU-students and one VG1-student rated sentence 68 at 5 on the Likert-scale. Sentence 70 been rated above 4 by two VG1-students and at 3 by one NTNU-student and two VG1-students.

4.3. Overview results

Both groups generally rated the sentences within expectations, where the unacceptable sentences have been rated below 2 and the acceptable sentences have been rated above 4. The MANOVAs showed an overall significant relationship between results and "group". The strongest linear correlation is between "group" and the pre-tests ($P = 0.00$) where the NTNU-students did significantly better than the VG1-students, which the descriptive statistics illustrate. There is also a significant correlation between "group" and the mean ratings of the acceptable part of the acceptability judgment test. The correlation tests between "group" and the specific variable-categories reveal that there is a significant correlation between "group" and category 1 ($p=0.000$) and 3 ($p =0.002$) but not between "group" and category 5 ($p = 0.212$). For most of the variable sentences there is therefore a linear relationship between "group" and results and a difference between the ratings of the two groups, but not for all. The descriptive data shows that the NTNU-students generally rated the acceptable sentences higher than the VG1-students.

There is no significant relationship between "group" and the mean ratings of the unacceptable part of the acceptability judgment test. The specific correlation tests between "group" and the mean ratings of the specific variable-categories show that there is a significant correlation between "group" and category 2 ($P = 0.034$), but not for category 4 ($P = 0.732$) and 6 ($P= 0.517$). The ratings of the majority of the unacceptable categories of interest are therefore more similarly distributed between the groups. However, the NTNU-students generally rated the sentences lower than the VG1-students. The results also show that there is a pattern between how the participant did on the pretests and how they rated the different categories, but that there is no linear relationship between the ratings of the acceptable sentences and the unacceptable sentences.

5.0 Discussion

This chapter is divided into four main sections. First the focus will be on the background of the two groups and its influence. Secondly there will be a short evaluation of the acceptability judgment test as a method. After that there will be a discussion of the results of the different categories compared to the background information presented in the theory part. The chapter ends with a general discussion.

5.1 The background of the participants

The results of the univeriate tests show that there is a high level of significance between "group" and their results on the two pretests (p<.01) where the NTNU-students have a higher mean score on both tests compared to the VG1-students. The results can support the idea that the NTNU-students are overall more proficient users of English than the VG1-students. Descriptive statistics also showed that there is a difference between the two groups where the NTNU-students did better than the VG1-students. The standard deviations of both of the pretests are higher for the VG1-students meaning that there is a higher level of difference within the VG1-group than within the NTNU-group due to the higher level of variance from the mean scores. The results therefore support the claim that there is a bigger difference between the VG1-students and their level of proficiency compared to the different levels of proficiency among the NTNU-students. The NTNU-students were all master-students studying English by choice. They have also studied English for longer than the VG1-students and thus it was expected that they would perform better on the standard pretests. The VG1-students are first-year students of the Norwegian high school where English is still a mandatory subject and thus it can be expected that the students have different levels of motivation and interest in English as a subject (Cook, 2002; Ellis, 1997). Furthermore the VG1-students have studied English for a shorter period of time than the NTNU-students and it was therefore expected that they would get a lower score on both tests.

The results from the Pearson correlation tests showed that there was a significant correlation between how the participants did on the standard grammar test and how they did on the vocabulary test (p<.01), and how they rated the acceptable part of the acceptability judgment test (p<.01) and the unacceptable part of the acceptability judgment test (p<.01). There was also a correlation between the results of the vocabulary test and the grammar-test (p<.01), the acceptable part of the acceptability judgment test (p<.01) and the unacceptable part of the acceptability judgment test (p<.05). This can indicate that the participants' level of

proficiency does matter when it comes to how they judge the different sentences on the acceptability scale.

5.2 The acceptability judgment test

The results from the acceptability judgment test show a high significant correlation between "group" and how they rated the acceptable sentences (p<.01) but no significant correlation between "group" and how they rated the unacceptable sentences (p>0.05). When looking at the mean ratings by the individual candidates (appendix 4) the results of participant 16 stood out within the NTNU-group with the highest mean rating of all (3.0) on the unacceptable sentences. I therefore did the tests again excluding the results of participant 16. However, there was still no correlation between "group" and their ratings of the unacceptable sentences, and because participant 16 had used all the numbers of the scale and mostly within expectations, I decided to keep the original calculations including the results of participant 16. The somewhat high mean rating could be due to some of the mentioned problems with the acceptability judgment test that Dabrowska (2010), Sprouse and Almeida (2012), Schutze and Sprouse (2012) have reported. Schutze and Sprouse (2012) define the Likert-scale version of the acceptability judgment test as a quantitative test looking at the size of the differences between the given numbers on the scale. However they also admit that the test looks at the perceptions of the participants which suggest a certain level of qualitative work. How the participants evaluate the scale will have an effect on their ratings (Dabrowska, 2010) and thus their ratings are not necessarily completely quantitatively comparable.

When talking about the results of the acceptability judgment test 1 and 2 will be referred to as unacceptable and 4 and 5 as acceptable, 3 is in the middle of the scale and will be viewed as uncertain. The descriptive statistics show that there is a smaller difference between the groups and their mean ratings of the unacceptable sentences compared to the ratings of the acceptable sentences. The results also show that there is no significant correlation between how the different participants rated the acceptable sentences compared to the unacceptable sentences (p=.272>0.05). Both the descriptive analysis and the correlation tests therefore suggest that there are some problems with the evaluation of the rating values of a Likert-scale. On the other hand the mean ratings for the unacceptable sentences are below 2 and the mean ratings of the acceptable sentences above 4 and thus the Likert-scale seem to have worked within expectations.

Another problem with the test includes two of the testing sentences (1) and (2):

(1) The enemy's destruction of the city   [(63) in Appendix 5]

(2) Man the's discovery   [(58) in Appendix 5]

The problem is that they are phrases and not full sentences like the rest of the sentences used in the acceptability judgment test. This can therefore have affected their ratings and as a result they will not be used for discussion purposes. Had it been possible to redo the test they would have been given an appropriate verb and object to make the structure of the sentences more similar, which is important to avoid possible rating errors (Dabrowska,2010; Sprouse and Almeida, 2012).

5.3 The different categories

5.3.1 Category 1: acceptable bare noun phrases

The results of the ANOVA test on category 1 show a strong correlation between "group" and ratings (p<.01) which means that there is a significant difference between the groups. The descriptive statistics show that the sentences have generally been rated above 4 on the scale by both groups but when looking at the specific sentences the ratings of (3) stands out compared to the rest of the testing category.

(3) Nina is a twin   [(38) In Appendix 5]

The NTNU-students rated (3) at 4.58 and the VG1-students have a mean rating of 3.50. The specific results show that five of the VG1-students have rated it as uncertain and two have rated it as unacceptable, while ten NTNU-students have rated it as acceptable. There are several possible explanations as to why the participants could be uncertain or find the sentence to be unacceptable. As Chomsky (1965) notes there are other factors than grammaticality that play a role when judging whether or not a sentence is unacceptable. For one the lexical content or the semantic value of the sentence can seem off to the participant. It is possible that the VG1-students found it unnatural to state that there is one twin seeing as one usually refers to both twins when presenting such information to others. Another reason for the low ratings could be due to them transferring information from their L1. As mentioned in the theory part (Section 2.4.1), Borthen (2003) concludes that sentences that can use the zero-article in Norwegian often demand the indefinite article in English. Thus (3) could be translated into (4) and although (5) is a possible Norwegian translation it sounds awkward which may have influenced the VG1-participants' ratings:

(4) Nina er tvilling

   Nina is twin

   'Nina is a twin'

(5) Nina er en tvilling

   Nina is a twin

   'Nina is a twin'

The category also included examples like (6) and (7) which require the indefinite article in English. As was presented in the theory part (Section 2.4.1), the Norwegian translation of these could also either include or exclude the indefinite article, but the Norwegian translation of (6) can be argued to sound more natural with the indefinite article than without, and the translation of (7) can be argued to sound equally natural with as without.

(6) You are a genius   [(39) in Appendix 5]

(7) They shared an apartment   [(40) in Appendix 5]

The perception of naturalness is part of the judgment process (Chomsky, 1965) and can be argued to exclude some of the choices that the participants have in their Norwegian L1. Stockwell et al (1965) links the number of choices that an L2 user has with how well he performs. The participants can be argued to perceive the structure of the L1 and the L2 to be equal and therefore it is possible that any transfer that can occur as a result would be favorable to the participant (Ringbom, 1986). It is therefore less likely that (6) and (7) would be deemed unacceptable by the Norwegian L1 speakers which the results seem to support. Example (3) has been rated as uncertain or unacceptable by the majority of the VG1-students which can indicate that their perception of the two language structures is still under development and is therefore more prone to negative transfer (Ionin et al, 2004, Mayo, 2009, Kellerman, 1979, Corder, 1983). This can be supported by the results of the more proficient NTNU-students who rated (3) as acceptable.

The test also included examples of English bare noun phrases, like the ones underlined in examples (8), (9) and (10):

(8) We watched television   [(37) in Appendix 5]

(9) Robert enjoyed college   [(41) in Appendix 5]

(10) There is coffee on the table   [(42) in Appendix 5]

Although the Norwegian translation of the noun found in (9) would include a suffixed determiner, the preceding determiner would not have been used in the Norwegian translation either, which could indicate that negative transfer is less likely than if the noun phrase had required a preceding article in Norwegian. The noun phrases found in (8) and (10) have the same structure in both languages and thus positive surface transfer could have helped the participants in their evaluation of the sentences (Lado, 1957; Sabourin et al, 2006; Ringbom, 1986). All of these sentences were deemed acceptable, so either there was no transfer from the L1 to the L2 or the transfer had a positive effect.

5.3.2 Category 2: Unacceptable bare noun phrases

The six sentences making up category 2 have generally been rated higher by the VG1-students than the NTNU-students and the ANOVA result shows that the ratings of sentences 43 to 48 have a significant correlation with which "group" the participants belong to ($p<.05$) The results show that most of the sentences have been rated within expectations with scores lower than 2. However, examples (11) and (12) have been rated above 3 on the scale by both groups and they thus stand out compared to the rest of the sentences in this category.

    (11) He has <u>high fever</u>   [(43) in Appendix 5]

    (12) He has <u>Norwegian citizenship</u>   [(46) in Appendix 5]

Five of the NTNU-students and nine VG1-students have rated the sentence in (11) as acceptable. Seven of the NTNU-students and six of the VG1-students have deemed sentence (12) as acceptable. All the examples in this testing category include noun phrases where the indefinite article has been wrongfully omitted.

    (13) <u>Ticket</u> is already ordered   [(44) in Appendix 5]

    (14) She was checked by <u>doctor</u>   [(45) in Appendix 5]

    (15) <u>Car</u> is made from metal   [(47) in Appendix 5]

    (16) You are <u>angel</u>   [(48) in Appendix 5]

Most studies looking at incorrect omission of articles have focused on L2 learners going from an L1 without articles to an L2 with articles. Norwegian and English both include articles and the two languages have many similarities which could as mentioned be helpful when trying to acquire the correct use of noun phrases (Stockwell et al, 1965, Sabourin et al, 2006, Ringbom, 1986), and some of the results do seem to support that idea. The noun phrases in (15) and (16) would be incorrect without the indefinite article in both English and Norwegian and thus

transfer can be excluded as a possible source of error in the evaluation of the sentence (Kellerman, 1979). The examples found in (13) and (14) can both include or exclude the indefinite article in Norwegian and therefore negative transfer could occur. However negative transfer is more likely to happen with the judgments of (11) and (12) where the indefinite article would be excluded in Norwegian. The results do support this claim given the high ratings of (11) and (12) compared to the rest of the sentences. Both of these sentences also include a prenominal modifying adjective, unlike the other examples, which increases the chances of incorrect omission (Trenkic, 2009). The ratings therefore suggest that even though both languages include articles the slightly different structure makes it possible for them to wrongfully omit the necessary indefinite article (Kellerman, 1979; Ringbom and Palmberg, 1976) when it would not be required in their own L1. The pretests suggest that the NTNU-students are arguably more proficient than the VG1-students and yet a high number of participants among the NTNU-group have deemed (11) and (12) acceptable. This suggests that there are certain limits to how proficient an L2 user can become and that even highly proficient L2 users make mistakes (Trenkic, 2009; Ellis, 1997; Hyltenstam and Abrahmsson, 2000, Cook, 2002; Birdsong, 2006).

5.3.3 Category 3: Acceptable determiner noun phrases

Jin et al (2009) looked at how English L1 speakers acquired Norwegian as an L2 and reported that they struggled with the correct use of Norwegian articles. This was partly because Norwegian has a more complicated article system where the articles are inflected by gender and number which English do not. Another difficulty for the English L1 speakers concerned the use of double-definiteness in Norwegian. This fits with Stockwell et al's (1965) hierarchy of difficulty, where the highest level of difficulty occurs when there is no choice in the L2 users L1, but an obligatory choice in the L2. The other way around could in theory be expected to be easier. The ratings of the sentences in category 3 show that there is a significant correlation between "group" and ratings overall (p<.01), which means that the ratings show patters of different distribution between the groups. The descriptive statistics shows that the NTNU-students rated the sentences as more acceptable than the VG1-students although there was a higher level of variance within the NTNU-group than within the VG1-group. Sentences (17), (18) and (19) have generally been deemed acceptable by the NTNU-students while a large part of the VG1-students rated them as unacceptable or uncertain.

(17) The dodo is extinct   [(51) in Appendix 5]

(18) I live in the big white house   [(54) in Appendix 5]

(19) I own the two oldest existing books about Trondheim [(53) in Appendix 5]

Sentence (17) has been deemed unacceptable by six and uncertain by three of the VG1-students and has been given the lowest ratings. All of these sentences present certain structural differences between Norwegian and English definite sentences so it is possible that transfer from the L1 has occurred. Sentence (17) would use a suffixed definite article in Norwegian, not a preceding one. Sentence (18) would use both a preceding and a suffixed definite article, and would also inflect the modifying adjectives. Sentence (19) would inflect the definite article due to number. However, sentence (20) would also have used a suffixed article but has been deemed acceptable, and sentences (21) and (22), which have wrongfully included extra articles to be more similar to the Norwegian structure, have been deemed unacceptable.

(20) Ruth killed the man   [(49) in Appendix 5]

(21) I've seen the big the house   [(59) in Appendix 5]

(22) Sarah liked to ride the white the horse   [(56) in Appendix 5]

Transfer therefore seems like an invalid explanation for the lower ratings, and does not exclude the idea that Norwegians learning English articles is easier than vice versa.

Another explanation to the low ratings could be lack of knowledge of the L2. The NTNU-students did better on both of the pretests and thus the VG1-students can be argued to be less proficient overall compared to the NTNU-students. The low ratings of sentences (17) and (19) can be explained by the content. Sentence (17) includes two words, "dodo" and "extinct", which can be argued to be lexically difficult compared to the words in the other sentences (Klare, 1963). Thus it is not impossible that the VG1-students have not understood the sentence and therefore have rated it lower than the more proficient NTNU-students. Sentence (19) includes easier words, but the sentence includes several modifiers which make it longer and more complex and therefore harder to judge than the shorter sentences (Klare, 1963). The level of proficiency may therefore also have been an important factor in the ratings of (19). The lower ratings of (18) are harder to explain. Although it includes several modifiers as well, the sentence is shorter and less complicated than (19). It is possible that their knowledge of their L2 parameter-settings is still under development, making them more insecure and thus they fluctuate between the different structures they know and end up using

an incorrect one in their evaluations (Ionin et al, 2004; Mayo, 2009; Ionin et al, 2008). Another explanation is that both (18) and (19) operate with the pronoun 'I'. This can have led some participants, who did not find these statements to fit with themselves, to deem it as unacceptable.

5.3.4 Category 4: Unacceptable determiner noun phrases
The descriptive statistics show that the NTNU-students rated this category slightly higher than the VG1-students, that there is a greater level of variance within the NTNU-group than the VG1-group and that there is no significant correlation between "group" and ratings (p= .732). The ratings are therefore more similarly distributed between groups. The descriptive results show that most of the sentences have been deemed unacceptable by the majority of the participants. However, sentence (23) stands out with high ratings from both groups, where seventeen of the participants have rated the sentence on the acceptable side of the scale and four have rated it as uncertain.

(23) Bella was the prettiest girl <u>in the town</u>   [(60) in Appendix 5]

Example (23) is incorrect and the underlined prepositional phrase "in the town" should have included a bare noun phrase instead of a definite noun phrase. The underlined noun phrase in (23) is a fixed location-expression which requires the use of the zero-article in English. Norwegian and English both make use of bare singulars but as mentioned in the theory part: where Norwegian can make use of bare noun phrases, English often has to include an indefinite article (Borthen, 2003); and where English has to make use of a bare noun phrase due to it being a fixed expression, Norwegian often requires a suffixed definite article (Hasselgård et al, 2012). The reason example (23) has been included in the determiner noun phrases-category is because in Norwegian this sentence would have required a suffixed definite article.

The underlined noun phrase in (24) can either include or exclude the definite article depending on the meaning of the sentence. There are two options; one where John goes to prison as punishment, where it should be excluded; another where John visits the prison as a building and not an institution, it should be included.

(24) John went to <u>the prison</u>   [(50) in Appendix 5]

Sentence (24) is from the "acceptable determiner noun phrases" category but has been deemed as unacceptable by three and uncertain by six of the participants, most likely because

they did not consider the difference in meaning with or without article, even though the difference in structure is found in Norwegian as well. The definite article used in the underlined phrase in example (23) could have been acceptable in other contexts in English[1] and it is not unlikely that this has influenced the ratings somewhat. Transfer does not seem to be the only explanation for the unexpected ratings. However, the high ratings of (23) could also be an indication that the participants transfer information from their L1. Ringbom and Palmberg (1976) point out that it is often similar elements which are the trickiest parts for the L2 users to acquire properly, and that the greatest level of transfer errors are connected to these types of situations. It is possible that the sentence has been deemed acceptable as a combination of transfer from the L1, where the Norwegian structure does require a suffixed determiner; and the knowledge that the definite article would be included in other noun phrase constructions with the noun "town". This can support the idea that L2 users will always have more than one language in mind and the languages will affect each other (Cook, 2002; Treffers-Daller and Sakel, 2012). Although the results show that the VG1-students have rated the sentence higher than the NTNU-group, the results could again indicate that there are limits to how proficient an L2 user can become (Hyltenstam and Abrahamsson, 2000; Ellis, 1997; Cook, 2002; Birdsong, 2006).

5.3.5 Category 5: Acceptable possessive noun phrases

The results show no correlation between the ratings of this category and which group the participants belong to (p =0.212). Although the descriptive statistics show that the NTNU-students rated the category higher than the VG1-students there is a greater level of variance between the NTNU-students overall than between the VG1-students and two of the sentences in the category was rated higher by the VG1-students than the NTNU-students. It therefore suggests that there is a higher level of similarity between the ratings of this acceptable category compared to the rest. Sentences (25) and (26) have been rated higher by the NTNU-students than the VG1-students. As discussed in the previous category some of the elements that are more likely to be transferred negatively are usually quite similar in the L1 as in the L2, where the L2 user perceives the elements to be equal, but which include minor differences (Ringbom and Palmberg, 1976; Kellerman, 1979; Corder, 1983). The s-genitive is an example of such a construction seeing as both Norwegian and English make use of it, but where English demands an apostrophe, Norwegians just attach the genitive-s at the end of the noun. Examples (25), (26) and (27) were used in the acceptability judgment test.

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[1] E.g. as the subject of a sentence: "The town was situated…", in other expressions: "They pained the town red", when referring to a specific place: "in the town of Trondheim".

(25) The picture's focus was on my dress   [(64) in Appendix 5]

(26) The students admired Sarah's picture by Rembrandt   [(65) in Appendix 5]

(27) Those are Valerie's books   [(66) in Appendix 5]

Example (25) has been deemed unacceptable by three of the NTNU-students and one of the VG1-students, while two NTNU-students and three VG1-students rated (25) as uncertain. In theory the participants could have deemed it unacceptable believing that it should exclude the apostrophe like in Norwegian. However, the high ratings of (26) and (27) question the explanation of negative transfer. It is possible that the lexical content has influenced the ratings of (25) and that the participants find it unlikely that the sentence would be uttered (Chomsky, 1965, Dabrowska, 2010; Klare, 1963).

The placement of the possessive pronoun was also investigated in this testing-category. In Norwegian it is most common to place it post-nominally but pre-nominally is also acceptable. In English the possessive pronoun has to precede the noun. Examples (28) and (29) were deemed acceptable by the majority of the participants, although a third of the participants deemed sentence (29) as unacceptable or uncertain.

(28) I dropped my son of at college   [(61) in Appendix 5]

(29) My glasses broke in class   [(62) in Appendix 5]

Again, transfer could have been involved in the evaluation of the sentence but it is unlikely that is has to do with the placement of the possessive pronouns. One reason is that Norwegian can accept both placements and therefore negative transfer is less likely to occur (Stockwell et al, 1965; Kellerman, 1979). Secondly, the results of the unacceptable possessive noun phrases where the possessive pronoun is placed behind the noun, like in (30) and (31), have been deemed unacceptable by all participants.

(30) Every man loves mother his   [(67) in Appendix 5]

(31) The photo showed the happy family mine   [(72) in Appendix 5]

It is also unlikely that the Norwegians deem (29) unacceptable due to the lack of a definite article, which would have been required in Norwegian in a suffixed version, seeing as (31) has been deemed unacceptable. It is possible that the semantic content is the main reason for it being perceived as unacceptable and that they find it odd that the glasses would break without mentioning who broke them or how (Chomsky, 1965). It is also possible that the first person statement does not fit with the participants' experience and that it therefore is deemed unacceptable. Another explanation could again be related to the bare noun phrases seeing as both of these sentences include one at the end: "college" and "class", both being part of a prepositional phrase. However, (28) has been deemed acceptable by twenty of the participants

so negative transfer cannot be said to have affected the evaluation of the majority of the participants.

5.3.6 Category 6: Unacceptable possessive noun phrases
Although the sentences in this category have generally been rated lower by the NTNU-students than the VG1-students the standard deviation show that there is a greater level of variance within the NTNU-group than the VG1-group and the results of the univeriate ANOVA-test revealed no significant correlation between "group" and ratings (p=.517). Again one can therefore assume that there is a higher level of similar responses between the two groups. All of the sentences have been rated below 3 on the scale and thus unacceptable. Except for sentences (32), (33) and (34) the rest have been deemed unacceptable or uncertain by all the participants.

(32) Alexander shot the father to the bride   [(68) in Appendix 5]

(33) The tail to the cat was crooked   [(71) in Appendix 5]

(34) The building to Peter was the tallest one in the city   [(70) in Appendix 5]

The sentences have mostly been rated below 3, and one could therefore argue that there is no need to look at the specific cases and that it will be too speculative to do so. However, the two sentences (32) and (33) show examples of a direct translation of the Norwegian 'til'-construction due to its resemblance to the English 'of-construction' (Hasselgård et al, Haegeman and Gueron). It is hard to find other explanations as to why any of the participants would deem these sentences correct other than the possibility of transfer from the L1. It is therefore interesting that sentence (32) has been rated as acceptable by two NTNU-students and one VG1-student and uncertain by two NTNU-students and one VG1-student; that sentence (33) has been rated as acceptable by one NTNU-student and four VG1-students and uncertain by two NTNU-students and two VG1-students; and that sentence (34) has been deemed acceptable by two VG1-students and uncertain by one NTNU-student and two VG1-students. Due to there being a higher expectancy rate of transfer when the constructions are similar though not completely alike (Ringbom and Palmberg, 1976), it is possible that these cases show evidence of negative surface transfer (Sabourin et al, 2006) from the participant's L1. The numbers are however too small to make some general conclusions and for the majority of the participants this is not the case. It could therefore be that the majority of the participants have developed their knowledge and perception of the language, while the

remaining participants fluctuate between structures and choose the incorrect option as a result (Ionin et al, 2004; Mayo, 2009; Kellerman, 1979; Corder, 1983).

5.4. General Discussion

The aim of this thesis was to look at whether or not Norwegian L1 speakers transfer elements from their L1 when using their L2. The two groups were generally not affected by negative transfer, although the VG1-students showed a higher tendency towards it than the NTNU-students overall. The results seem to indicate a pattern between how proficient the participants are and how they rated the acceptability test. However, there are limits to how proficient L2 users can become (Ellis, 1997; Hyltenstam and Abrahamsson, 2000; Cook, 2002). When inspecting the different variables it seems as though transfer can be one possible explanation for some of the surprising judgments while others can be explained by difference in knowledge of the L2. Although all variables included some surprising judgments, the ratings that stood out the most were connected to the use of bare noun phrases. Norwegian and English structure their language quite similarly but have a few differences that can have led to negative transfer (Stockwell, 1965; Ringbom and Palmberg, 1976; Sabourin et al, 2006; Kellerman, 1979). It is not the biggest differences, like the use of double-definiteness in Norwegian and not in English, that are most striking, but rather those elements that only differ slightly.

6.0 Conclusion

The aim of this study was to look at the effect L1 transfer can have on the use of an L2. Twelve VG1-students and twelve NTNU-students all conducted an acceptability judgment test where they would rate the acceptability of 72 sentences on a Likert-scale from 1 to 5. The test was divided into 36 acceptable sentences and 36 unacceptable sentences, which were further divided into four categories each: control sentences, bare noun phrases, determiner noun phrases and possessive noun phrases. The participants also conducted a grammar test and a vocabulary test which both aimed at depicting an approximate level of proficiency.

Kellerman (1979), Corder (1983) and Ringbom (1986) all argue that the perceived similarities and differences between the structures can affect how an L2 learner make use of his second language. The L2 user's perception of the similarities and differences between the languages he knows is crucial to how he performs, and therefore it is those elements that differ slightly that can prove to be the hardest parts to acquire (Ringbom and Palmber, 1976). According to Stockwell et al (1965) it is harder to go from an L1 without any obligatory options to an L2 that includes obligatory options, like the differences in article system between Norwegian and English. The two languages have many similarities which can be an advantage in some ways and a challenge in others. Norwegian has a more complicated noun phrase system than English and therefore one could in theory expect the Norwegian L1 participants to have few problems with the acquisition of English noun phrases. Parts of the result seem to support this notion seeing as the majority of the participants mostly did not have any problems judging the sentences that presented English correct and incorrect determiner phrases where definiteness was in focus.

There was overall a difference between the groups and how they rated the different sentences. The results of the pretests also differed between the groups where the NTNU-students did significantly better on both tests compared to the VG1-students. This supports the idea that the NTNU-students are more proficient than the VG1-students on average. This can partly be due to difference in motivation but mostly due to length of education and experience (Cook, 2002; Ellis, 1997). The results further suggest that proficiency has an impact on parts of the acceptability judgment test. Cook (2002) and Treffers-Daller and Sakel (2012) argue that L2 users differ from monolinguals by being able to switch between the languages they know and that they always have more than one language activated. Ionin et al (2004), Mayo (2009), Ionin et al (2008) argue that the learners fluctuate between the structures of the

languages they know and also the knowledge they can access from Universal Grammar and that depending on their proficiency they end up using the correct or incorrect structure for their target language.

However, there are limits to how proficient an L2 user can become and even highly proficient L2 users can be influenced by transfer from their L1. The results showed that there were some elements where even the more proficient NTNU-group seemed to have been influenced by transfer. The elements were mostly connected to the bare noun phrases. Trenkic (2009) reports that languages that lack articles in their L1 will be more prone to omitting the necessary article in an L2 sentence, if the sentence includes a modifying adjective. The result shows that two unacceptable sentences investigating incorrect article omission have been deemed acceptable by a majority of the participants, and both sentences include a modifying adjective. The results of the acceptability judgment test therefore suggest that even though a language includes articles in general, a slight difference in when the languages require an article or not can also have an effect. Furthermore, one of the incorrect definite sentences that showed a possible trace of transfer was also connected to the bare noun phrases. This supports the theory that although the similarities between languages can provide certain advantages, they can also be the most challenging part to fully acquire and use without being influenced by the L1. However, other similar elements that differ slightly between the languages, like the 's'-gentitive and the use of the 'to'-construction, only showed minor possible traces of negative transfer.

The acceptability judgment test can be argued to have some advantages in that it can exclude, to an extent, certain impulsive errors that the participants would produce in more spontaneous situations and would later correct. However, as reported there are some limitations to the method as well. It could be interesting to have a deeper look at the acquisition of bare noun phrases in particular and see if there are any wider patterns for when Norwegians will exclude a necessary article or include an incorrect article when using English bare noun phrases. It could also be interesting to compare their acquisition to other L2 users of English who have a different L1 background, preferably both with and without articles. The results do suggest that it is an area where even highly proficient Norwegians struggle to acquire the correct structure and it seems likely that transfer is partly to blame for it. At the same time the results of the test indicate that the Norwegian participants master most of the English noun phrase elements, and that as their proficiency increases so does their ability to use the right structure.

Work cited

Birdsong, D. (2006). Age and Second Language Acquisition and Processing: A Selective Overview. *Language Learning, 56*, 9-49.

Borthen, K. (2003). *Norwegian Bare Singulars*. PhD. Dissertation, NTNU: Department of Linguistics.

Carroll, S. E. (2007). Autonomous Induction Theory. In, B. VanPatten, & J. Williams (Eds.), *Theories in Second Language Acquisition, An Introduction*. (pp. 155-174). USA: Laurence Erlbaum Associates.

Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, Mass.: MIT Press.

Cook, V. J. (2002). Background to the L2 user. In V.J. Cook (Ed.), *Portraits of the L2 User*, (1-28). Clevedon, UK: Multilingual Matters.

Cook, V. J. (2008). *Second Language Acquisition and Language Teaching* (4th edition). London: Routledge.

Cook, V. (2010). The Relationship Between First and Second Language Revisited. In E. Macaro (Ed.) *The Continuum companion to second language acquisition* (pp. 137-157). London: Continuum.

Corder, S. P. (1983). A role for the mother tongue. In S. Gass and L. Selinker (eds), *Language transfer in language learning*, (pp. 85-97). Rowley, MA: Newbury House.

Dabrowska, E. (2010). Naïve v. expert intuitions: An empirical study of acceptability judgments. *The linguistic review, 27*, 1-23.

Delsing, L.-O. (1993). *The Internal Structure of Noun Phrases in the Scandinavian Languages.* PhD. Dissertation, Lund University.

Dulay, H., Burt, M. 1974. Natural sequences in child second language acquisition. *Language Learning, 24*, 37-53.

Ellis, N. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition*, *27*, 305-352.

Ellis, R. (1997) *Second Language Acquisition*, Oxford: Oxford University Press.

Gass, S. M., Selinker, L. (1993). Introduction. In S.M. Gass & L. Selinker (Eds.) *Language Transfer in Language Learning,* (pp. 1-17). Amsterdam & Philadelphia: John Benjamins Company.

Gass, S. M., Selinker, L. (2008). *Second Language Acquisition: An Introductory Course* (3rd edition). London: Routledge.

Grosjean, F. (1989). Neurolinguists, beware! The bilingual is not two monolinguals in one person. *Brain and Language, 36*, 3-15.

Haegeman, L., Gueron, J. (1999). *English Grammar, a generative perspective*, Oxford: Blackwell.

Hagen, J. E. (1998) *Norsk grammatikk for andrespråkslærere*, Oslo: Ad Notam Gyldendal.

Hasselgård, H., Lysvåg P., Johansson, S. (2012). *English Grammar, Theory and Use* (2nd edition). Oslo: Universitetsforlaget.

Huddleston, R., Pullum, G. K. (2002). *The Cambridge Grammar of the English Language*. Cambridge, UK: Cambridge University Press.

Hyltenstam, K. & Abrahamsson, N. (2000) Who Can Become Native-like in a Second Language, All, Some, or None, On the maturational constrains controversy in second language acquisition. *Studia Linguistica*, *54,* 155-166.

Ionin, T., Ko, H., Wexler, K. (2004). Article Semantics in L2 acquisition: The Role of Specificity. *Language Acquisition, 12(1),* 3-69.

Ionin, T., Zubizaretta, M. L. , Maldonado, S. B. (2008). Sources of linguistic knowledge in the second language acquisition of English articles. *ScienceDirect*, *Lingua*, *118*, 554-576.

Jin, F., Åfarli, T. A., van Dommeln, W. A. (2009). Variability in the L2 acquisition of Norwegian DPs, An evaluation of some current SLA models. In M. P. G. Mayo & R. Hawkins, (Eds.), *Second Language Acquisition of Articles: empirical findings and theoretical implications* (pp. 175-200). Amsterdam and Philadelphia: John Benjamins Publishing Company.

Julien, M. (2005). *Nominal Phrases from a Scandinavian Perspective*, Amsterdam and Philadelphia: John Benjamins Publishing Company.

Johnson, J. S., Newport, E. L. (1989). Critical Period Effects in Second Language Learning: The Influence of Maturational State on the Acquisition of English as a Second Language. *Cognitve Psychology, 21*, 60-99.

Kellerman, E. (1979). Transfer and Non-Transfer: Where Are We Now? *Studies in Second Language Acquisition, 2(1),* 37-57.

Klare, G. R. (1963). The Measurement of Readability. Ames IA: Iowa State University Press.

Kim, L. K., Lakshmanan, U. (2009). The processing role of the Article Choice Parameter: Evidence from L2 learners of English. In, M. P. G. Mayo & R. Hawkins (Eds.), *Second Language Acquisition of Articles: empirical findings and theoretical implications* (pp. 87-114). Amsterdam and Philadelphia: John Benjamins Publishing Company.

Lado, R. (1957). *Linguist across cultures: Applied linguistics for language teachers*. Ann Arbor, USA: University of Michigan Press.

Langacker, R. W. (1987). *Foundations of Cognitive Grammar: Theoretical Prerequisites*. Stanford, California: Stanford University Press.

Littlewood, W. (1984). *Foreign and Second Language Learning*, Cambridge, UK: Cambridge University Press.

Mayo, M. P. G. (2009). Article choice in L2 English by Spanish Speakers, Evidence for full transfer. In M. P. G. Mayo & R. Hawkins (Eds.), *Second Language Acquisition of Articles: empirical findings and theoretical implications* (pp. 13-36). Amsterdam and Philadelphia: John Benjamins Publishing Company.

Newsom, J. T. (2012). Basic Longitudinal Analysis Approaches for Continuous and Categorical Variables. In J. T. Newsom, R. N. Jones, S. M. Hofer (Eds.). *Longitudinal Data Analysis: A practical Guide for Researchers in Aging, Health and Social Sciences*, (pp. 142-179). New York: Taylor and Francis Group.

Nordgård, T., Åfarli, T. A. (1990). *Generativ syntaks, Ei innføring via norsk*. Oslo: Novus Forlag.

Ringbom, H., Palmberg, R. (1976). *Errors Made by Finns and Swedish-speaking Finns in the Learning of English.* Abo, Finland: AFTIL.

Ringbom, H. (1986). Crosslinguistic Influence and the Foreign Language Learning Process. In E. Kellerman, M. S. Smith (Eds.), *Crosslinguistic Influence in Second Lanugage Acquisition*, (pp. 150-162). Oxford: Pergamon.

Sabourin, L., Stowe, L. A., de Haan, G. J. (2006). Transfer effects in learning a second language grammatical gender system. *Second Language Research 22(1)*, 1-29.

Sarko, G. (2009). L2 English article production by Arabic and French speakers. In M. P. G. Mayo & R. Hawkins (Eds.), *Second Language Acquisition of Articles: empirical findings and theoretical implications,* (pp. 37-66). Amsterdam and Philadelphia: John Benjamins Publishing Company.

Schutze, C. T. (1996). *The empirical base of linguistics: Grammaticality judgment and linguistic methodology*. Chicago: University of Chicago Press.

Schutze, C. T., Sprouse, J. (2012). Judgment Data. To be published in Robert J. Podesva & Devyani Sharma (eds.), *Research Methods in Linguistics*. Cambridge: Cambridge University Press.

Snow, C. E, Hoefnagel-Höhle, M. (1978). The Critical Period for Language Acquisition: Evidence from Second Language Learning. *Child Development, 49,* 1114-1128.

Sprouse, J., Almeida, D. (2012) Assessing the reliability of textbook data insyntax: Adger's Core Syntax. *Journal of Linguistics 48*, 609-652.

Stewart, J. M. (2003). Is There a Fundamental Difference? The Availability of Universal Grammar in Child versus Adult Second Language Acquisition. In J. M. Liceras (Ed.), *Proceedings of the 6th Generative Approaches to Second Language Acquisition Conference (GASLA 2002)* (pp. 308-314). Sommerville, MA: Cascadilla Proceedings Project.

Stockwell, R., Bowen, R. J., Martin, J. W. (1965). *The Grammatical Structure of English and Spanish.* Chicago: University of Chicago Press.

Tavakoli, H. (2012). *A Dictionary of Research Methodology and Statistics in Applied Linguistics*, Tehran, Iran: Rahnama Press.

Treffers-Daller, J., Sakel, J. (2012). Why transfer is a key aspect of language use and processing in bilinguals and L2 users. *International Journal of Bilingualism*, *16 (1),* 3-10.

Trenkic, D. (2009). Accounting for patterns of article omission and substitutions. In M. P. G. Mayo & R. Hawkins (Eds.). *Second Language Acquisition of Articles: empirical findings and theoretical implications,* (pp. 116-143), Amsterdam and Philadelphia: John Benjamins Publishing Company.

VanPatten, B., Williams, J. (2007). Early Theories in Second Language Acquisition. In B. VanPatten & J. Williams (Eds). *Theories in Second Language Acquisition: An Introduction* (pp. 17-35)*.* Mahwah, New Jersey: Lawrence Erlbaum Associates.

White, L. (2012). Universal Grammar, crosslinguistic variation and second language acquisition. *Language Teaching, 45*, 309-328.

Appendix

Appendix 1: Results of the univeriate ANOVA tests:

Univeriate tests:

Dependent Variable		df	Mean Square	F	Sig.
UnControl	Contrast	1	.823	6.864	.016
	Error	22	.120		
AccControl	Contrast	1	1.112	13.245	.001
	Error	22	.084		
AccBNP	Contrast	1	1.584	22.443	.000
	Error	22	.071		
UnBNP	Contrast	1	1.418	5.106	.034
	Error	22	.278		
AccDet	Contrast	1	2.779	12.728	.002
	Error	22	.218		
UnDet	Contrast	1	.029	.120	.732
	Error	22	.241		
AccPos	Contrast	1	.612	1.655	.212
	Error	22	.370		
UnPos	Contrast	1	.167	.433	.517
	Error	22	.384		
Grammar	Contrast	1	1190.042	32.648	.000
	Error	22	36.451		
Vocabulary	Contrast	1	4197033120.167	115.269	.000
	Error	22	36410675.712		

Note: UnControl = the unacceptable control sentences, AccControl = the acceptable
control sentences, AccBNP = the acceptable bare noun phrases, UnBNP = the
unacceptable bare noun phrases, AccDet = the acceptable determiner noun phrases,
UnDet = the unacceptable determiner noun phrases, AccPos= the acceptable possessive
noun phrases, UnPos = the unacceptable possessive noun phrases, Grammar = results of
the grammar test, Vocabulary = results of the vocabulary test.

Appendix 2: Descriptive statistics for all the testing categories

Descriptive Statistics

school		N	Minimum	Maximum	Mean	Std. Deviation
VG1	UnControl	12	1.33	2.44	1.8611	.28965
	AccControl	12	3.89	4.89	4.3380	.37490
	AccBNP	12	3.83	4.83	4.2917	.29409
	UnBNP	12	2.00	3.67	2.6944	.46511
	AccDet	12	3.17	4.50	3.6667	.40202
	UnDet	12	1.67	2.33	1.8333	.23570
	AccPos	12	3.17	4.67	3.8333	.48721
	UnPos	12	1.17	3.00	1.8750	.53241
	Valid N (listwise)	12				
NTNU	UnControl	12	1.06	2.44	1.4907	.39486
	AccControl	12	4.56	5.00	4.7685	.16554
	AccBNP	12	4.33	5.00	4.8056	.23391
	UnBNP	12	1.67	3.67	2.2083	.58225
	AccDet	12	3.33	5.00	4.3472	.52444
	UnDet	12	1.00	3.50	1.9028	.65311
	AccPos	12	3.00	5.00	4.1528	.70874
	UnPos	12	1.00	3.50	1.7083	.69676
	Valid N (listwise)	12				

Note: UnControl = the unacceptable control sentences, AccControl = the acceptable control sentences, AccBNP = the acceptable bare noun phrases, UnBNP = the unacceptable bare noun phrases, AccDet = the acceptable determiner noun phrases, UnDet = the unacceptable determiner noun phrases, AccPos= the acceptable possessive noun phrases, UnPos = the unacceptable possessive noun phrases.

Appendix 3: Frequency tables of the Acceptability judgment Test

Sentence 1:

school			Frequency	Valid Percent
VG1	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	3	25.0
		Total	12	100.0

Sentence 2:

school			Frequency	Valid Percent
VG1	Valid	1.00	8	66.7
		2.00	3	25.0
		3.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	11	91.7
		2.00	1	8.3
		Total	12	100.0

Sentence 3:

school			Frequency	Valid Percent
VG1	Valid	1.00	11	91.7
		2.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 4:

school			Frequency	Valid Percent
VG1	Valid	1.00	9	75.0
		2.00	3	25.0
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	2	16.7
		5.00	1	8.3
		Total	12	100.0

Sentence 5:

school			Frequency	Valid Percent
VG1	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 6:

school			Frequency	Valid Percent
VG1	Valid	1.00	8	66.7
		2.00	4	33.3
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	3	25.0
		Total	12	100.0

Sentence 7:

school			Frequency	Valid Percent
VG1	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 8:

school			Frequency	Valid Percent
VG1	Valid	1.00	8	66.7
		2.00	4	33.3
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 9:

school			Frequency	Valid Percent
VG1	Valid	1.00	4	33.3
		2.00	5	41.7
		3.00	1	8.3
		4.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	8	66.7
		2.00	4	33.3
		Total	12	100.0

Sentence 10:

school			Frequency	Valid Percent
VG1	Valid	1.00	4	33.3
		2.00	1	8.3
		3.00	4	33.3
		4.00	1	8.3
		5.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	6	50.0
		2.00	5	41.7
		4.00	1	8.3
		Total	12	100.0

Sentence 11:

school			Frequency	Valid Percent
VG1	Valid	1.00	6	50.0
		2.00	6	50.0
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 12:

school			Frequency	Valid Percent
VG1	Valid	1.00	4	33.3
		2.00	4	33.3
		3.00	1	8.3
		4.00	2	16.7
		5.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	6	50.0
		2.00	5	41.7
		3.00	1	8.3
		Total	12	100.0

Sentence 13:

school			Frequency	Valid Percent
VG1	Valid	3.00	4	33.3
		4.00	1	8.3
		5.00	7	58.3
		Total	12	100.0
NTNU	Valid	1.00	3	25.0
		2.00	4	33.3
		3.00	1	8.3
		5.00	4	33.3
		Total	12	100.0

Sentence 14:

school			Frequency	Valid Percent
VG1	Valid	1.00	8	66.7
		2.00	4	33.3
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	3	25.0
		Total	12	100.0

Sentence 15:

school			Frequency	Valid Percent
VG1	Valid	1.00	1	8.3
		2.00	3	25.0
		3.00	6	50.0
		4.00	1	8.3
		5.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	4	33.3
		2.00	6	50.0
		4.00	1	8.3
		5.00	1	8.3
		Total	12	100.0

Sentence 16:

school			Frequency	Valid Percent
VG1	Valid	1.00	11	91.7
		2.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 17:

school			Frequency	Valid Percent
VG1	Valid	1.00	11	91.7
		3.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	3	25.0
		Total	12	100.0

Sentence 18:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		4.00	5	41.7
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	1.00	3	25.0
		2.00	4	33.3
		3.00	1	8.3
		4.00	1	8.3
		5.00	3	25.0
		Total	12	100.0

Sentence 19:

school			Frequency	Valid Percent
VG1	Valid	4.00	3	25.0
		5.00	9	75.0
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 20:

school			Frequency	Valid Percent
VG1	Valid	4.00	4	33.3
		5.00	8	66.7
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 21:

school			Frequency	Valid Percent
VG1	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 22:

school			Frequency	Valid Percent
VG1	Valid	3.00	2	16.7
		4.00	6	50.0
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		4.00	1	8.3
		5.00	10	83.3
		Total	12	100.0

Sentence 23:

school			Frequency	Valid Percent
VG1	Valid	2.00	2	16.7
		4.00	3	25.0
		5.00	7	58.3
		Total	12	100.0
NTNU	Valid	4.00	1	8.3
		5.00	11	91.7
		Total	12	100.0

Sentence 24:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	7	58.3
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 25:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	3	25.0
		5.00	8	66.7
		Total	12	100.0
NTNU	Valid	2.00	2	16.7
		3.00	1	8.3
		4.00	2	16.7
		5.00	7	58.3
		Total	12	100.0

Sentence 26:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	5	41.7
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 27:

school			Frequency	Valid Percent
VG1	Valid	4.00	5	41.7
		5.00	7	58.3
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 28:

school			Frequency	Valid Percent
VG1	Valid	3.00	2	16.7
		4.00	4	33.3
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	3.00	3	25.0
		4.00	1	8.3
		5.00	8	66.7
		Total	12	100.0

Sentence 29:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	5	41.7
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		3.00	1	8.3
		4.00	3	25.0
		5.00	7	58.3
		Total	12	100.0

Sentence 30:

school			Frequency	Valid Percent
VG1	Valid	1.00	1	8.3
		3.00	4	33.3
		4.00	1	8.3
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0

Sentence 31:

school			Frequency	Valid Percent
VG1	Valid	1.00	4	33.3
		2.00	1	8.3
		3.00	3	25.0
		4.00	1	8.3
		5.00	3	25.0
		Total	12	100.0
NTNU	Valid	4.00	3	25.0
		5.00	9	75.0
		Total	12	100.0

Sentence 32:

school			Frequency	Valid Percent
VG1	Valid	3.00	2	16.7
		4.00	2	16.7
		5.00	8	66.7
		Total	12	100.0
NTNU	Valid	3.00	1	8.3
		4.00	2	16.7
		5.00	9	75.0
		Total	12	100.0

Sentence 33:

school			Frequency	Valid Percent
Videregående	Valid	4.00	3	25.0
		5.00	9	75.0
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 34:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		3.00	4	33.3
		4.00	3	25.0
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	3.00	1	8.3
		4.00	5	41.7
		5.00	6	50.0
		Total	12	100.0

Sentence 35:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		4.00	6	50.0
		5.00	5	41.7
		Total	12	100.0
NTNU	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0

Sentence 36:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	1	8.3
		5.00	10	83.3
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 37:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	8	66.7
		5.00	3	25.0
		Total	12	100.0
NTNU	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0

Sentence 38:

school			Frequency	Valid Percent
VG1	Valid	2.00	2	16.7
		3.00	5	41.7
		4.00	2	16.7
		5.00	3	25.0
		Total	12	100.0
NTNU	Valid	2.00	1	8.3
		3.00	1	8.3
		5.00	10	83.3
		Total	12	100.0

Sentence 39:

school			Frequency	Valid Percent
VG1	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0
NTNU	Valid	5.00	12	100.0

Sentence 40:

school			Frequency	Valid Percent
VG1	Valid	4.00	5	41.7
		5.00	7	58.3
		Total	12	100.0
NTNU	Valid	4.00	1	8.3
		5.00	11	91.7
		Total	12	100.0

Sentence 41:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	3	25.0
		5.00	8	66.7
		Total	12	100.0
NTNU	Valid	4.00	1	8.3
		5.00	11	91.7
		Total	12	100.0

Sentence 42:

school			Frequency	Valid Percent
VG1	Valid	3.00	2	16.7
		4.00	7	58.3
		5.00	3	25.0
		Total	12	100.0
NTNU	Valid	3.00	1	8.3
		4.00	3	25.0
		5.00	8	66.7
		Total	12	100.0

Sentence 43:

school			Frequency	Valid Percent
VG1	Valid	3.00	3	25.0
		4.00	4	33.3
		5.00	5	41.7
		Total	12	100.0
NTNU	Valid	2.00	5	41.7
		3.00	2	16.7
		4.00	4	33.3
		5.00	1	8.3
		Total	12	100.0

Sentence 44:

school			Frequency	Valid Percent
VG1	Valid	2.00	6	50.0
		3.00	5	41.7
		4.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	4	33.3
		2.00	7	58.3
		4.00	1	8.3
		Total	12	100.0

Sentence 45:

school			Frequency	Valid Percent
VG1	Valid	1.00	2	16.7
		2.00	5	41.7
		3.00	2	16.7
		4.00	3	25.0
		Total	12	100.0
NTNU	Valid	1.00	7	58.3
		2.00	5	41.7
		Total	12	100.0

Sentence 46:

school			Frequency	Valid Percent
VG1	Valid	1.00	3	25.0
		2.00	1	8.3
		3.00	2	16.7
		4.00	2	16.7
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	2.00	4	33.3
		3.00	1	8.3
		4.00	2	16.7
		5.00	5	41.7
		Total	12	100.0

Sentence 47:

school			Frequency	Valid Percent
VG1	Valid	1.00	3	25.0
		2.00	4	33.3
		3.00	2	16.7
		4.00	2	16.7
		5.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	5	41.7
		2.00	4	33.3
		3.00	2	16.7
		4.00	1	8.3
		Total	12	100.0

Sentence 48:

school			Frequency	Valid Percent
VG1	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	2	16.7
		3.00	1	8.3
		Total	12	100.0

Sentence 49:

school			Frequency	Valid Percent
VG1	Valid	3.00	1	8.3
		4.00	5	41.7
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		3.00	1	8.3
		5.00	10	83.3
		Total	12	100.0

Sentence 50:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		3.00	4	33.3
		4.00	3	25.0
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	2.00	2	16.7
		3.00	2	16.7
		4.00	4	33.3
		5.00	4	33.3
		Total	12	100.0

Sentence 51:

school			Frequency	Valid Percent
VG1	Valid	2.00	6	50.0
		3.00	3	25.0
		4.00	2	16.7
		5.00	1	8.3
		Total	12	100.0
NTNU	Valid	3.00	2	16.7
		4.00	3	25.0
		5.00	7	58.3
		Total	12	100.0

Sentence 52:

school			Frequency	Valid Percent
VG1	Valid	3.00	4	33.3
		4.00	4	33.3
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	3.00	2	16.7
		4.00	3	25.0
		5.00	7	58.3
		Total	12	100.0

Sentence 53:

school			Frequency	Valid Percent
VG1	Valid	2.00	2	16.7
		3.00	5	41.7
		4.00	3	25.0
		5.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		3.00	1	8.3
		4.00	6	50.0
		5.00	4	33.3
		Total	12	100.0

Sentence 54:

school			Frequency	Valid Percent
VG1	Valid	1.00	1	8.3
		2.00	1	8.3
		3.00	3	25.0
		4.00	5	41.7
		5.00	2	16.7
		Total	12	100.0
NTNU	Valid	4.00	1	8.3
		5.00	11	91.7
		Total	12	100.0

Sentence 55:

school			Frequency	Valid Percent
VG1	Valid	1.00	9	75.0
		2.00	2	16.7
		4.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	1	8.3
		5.00	1	8.3
		Total	12	100.0

Sentence 56:

school			Frequency	Valid Percent
VG1	Valid	1.00	7	58.3
		2.00	3	25.0
		3.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	5	41.7
		2.00	4	33.3
		4.00	2	16.7
		5.00	1	8.3
		Total	12	100.0

Sentence 57:

school			Frequency	Valid Percent
VG1	Valid	1.00	9	75.0
		2.00	2	16.7
		3.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	7	58.3
		2.00	1	8.3
		3.00	1	8.3
		5.00	3	25.0
		Total	12	100.0

Sentence 58:

school			Frequency	Valid Percent
VG1	Valid	1.00	11	91.7
		2.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	12	100.0

Sentence 59:

school			Frequency	Valid Percent
VG1	Valid	1.00	6	50.0
		2.00	6	50.0
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	2	16.7
		Total	12	100.0

Sentence 60:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		3.00	1	8.3
		4.00	6	50.0
		5.00	4	33.3
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		2.00	1	8.3
		3.00	3	25.0
		4.00	6	50.0
		5.00	1	8.3
		Total	12	100.0

Sentence 61:

school			Frequency	Valid Percent
VG1	Valid	1.00	1	8.3
		3.00	3	25.0
		4.00	3	25.0
		5.00	5	41.7
		Total	12	100.0
NTNU	Valid	3.00	1	8.3
		4.00	3	25.0
		5.00	8	66.7
		Total	12	100.0

Sentence 62:

school			Frequency	Valid Percent
VG1	Valid	2.00	2	16.7
		3.00	4	33.3
		4.00	3	25.0
		5.00	3	25.0
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		2.00	1	8.3
		4.00	3	25.0
		5.00	7	58.3
		Total	12	100.0

Sentence 63:

school			Frequency	Valid Percent
VG1	Valid	2.00	3	25.0
		3.00	5	41.7
		4.00	2	16.7
		5.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	1	8.3
		2.00	1	8.3
		3.00	2	16.7
		4.00	3	25.0
		5.00	5	41.7
		Total	12	100.0

Sentence 64:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		3.00	3	25.0
		4.00	6	50.0
		5.00	2	16.7
		Total	12	100.0
NTNU	Valid	2.00	3	25.0
		3.00	2	16.7
		4.00	4	33.3
		5.00	3	25.0
		Total	12	100.0

Sentence 65:

school			Frequency	Valid Percent
VG1	Valid	2.00	1	8.3
		3.00	1	8.3
		4.00	4	33.3
		5.00	6	50.0
		Total	12	100.0
NTNU	Valid	2.00	2	16.7
		3.00	1	8.3
		4.00	5	41.7
		5.00	4	33.3
		Total	12	100.0

Sentence 66:

school			Frequency	Valid Percent
VG1	Valid	3.00	2	16.7
		4.00	5	41.7
		5.00	5	41.7
		Total	12	100.0
NTNU	Valid	4.00	2	16.7
		5.00	10	83.3
		Total	12	100.0

Sentence 67:

school			Frequency	Valid Percent
VG1	Valid	1.00	10	83.3
		2.00	1	8.3
		3.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	10	83.3
		2.00	1	8.3
		3.00	1	8.3
		Total	12	100.0

Sentence 68:

school			Frequency	Valid Percent
VG1	Valid	1.00	7	58.3
		2.00	3	25.0
		3.00	1	8.3
		5.00	1	8.3
		Total	12	100.0
NTNU	Valid	1.00	3	25.0
		2.00	5	41.7
		3.00	2	16.7
		5.00	2	16.7
		Total	12	100.0

Sentence 69:

school			Frequency	Valid Percent
VG1	Valid	1.00	6	50.0
		2.00	4	33.3
		3.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	8	66.7
		2.00	1	8.3
		3.00	3	25.0
		Total	12	100.0

Sentence 70:

school			Frequency	Valid Percent
VG1	Valid	1.00	5	41.7
		2.00	3	25.0
		3.00	2	16.7
		4.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	9	75.0
		2.00	2	16.7
		3.00	1	8.3
		Total	12	100.0

Sentence 71:

school			Frequency	Valid Percent
VG1	Valid	1.00	1	8.3
		2.00	4	33.3
		3.00	2	16.7
		4.00	5	41.7
		Total	12	100.0
NTNU	Valid	1.00	4	33.3
		2.00	4	33.3
		3.00	2	16.7
		4.00	1	8.3
		5.00	1	8.3
		Total	12	100.0

Sentence 72:

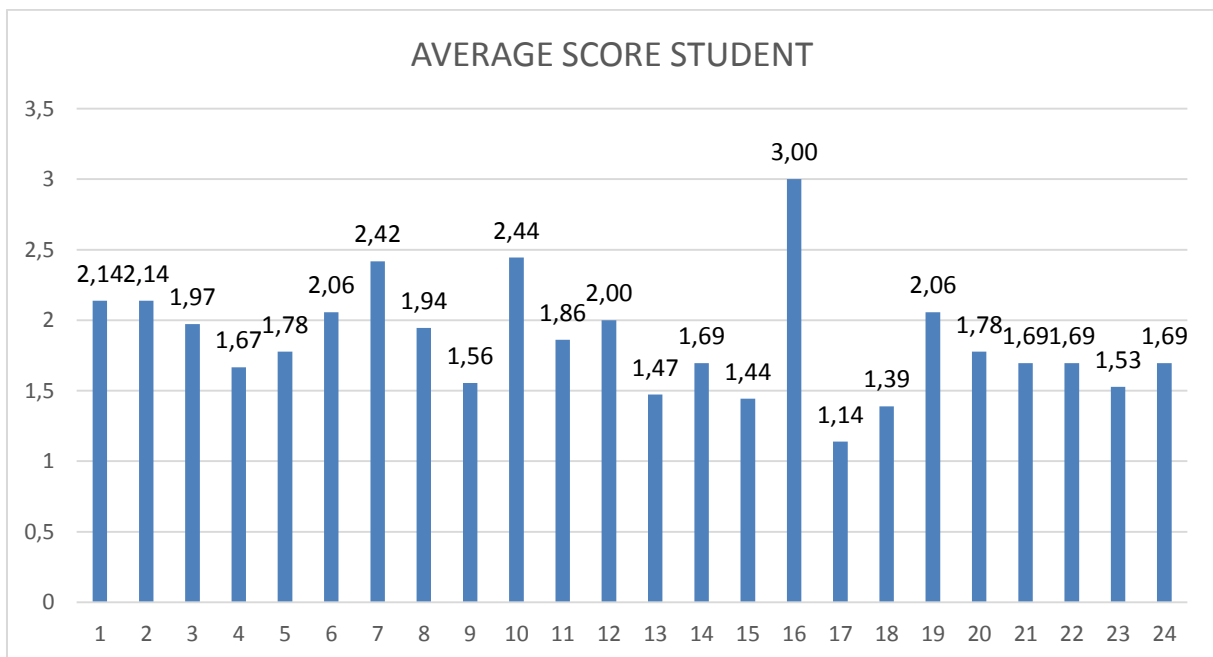| school			Frequency	Valid Percent
VG1	Valid	1.00	7	58.3
		2.00	3	25.0
		3.00	2	16.7
		Total	12	100.0
NTNU	Valid	1.00	8	66.7
		2.00	3	25.0
		3.00	1	8.3
		Total	12	100.0

Appendix 4: Individual mean scores on the acceptability judgment test

Acceptable sentences
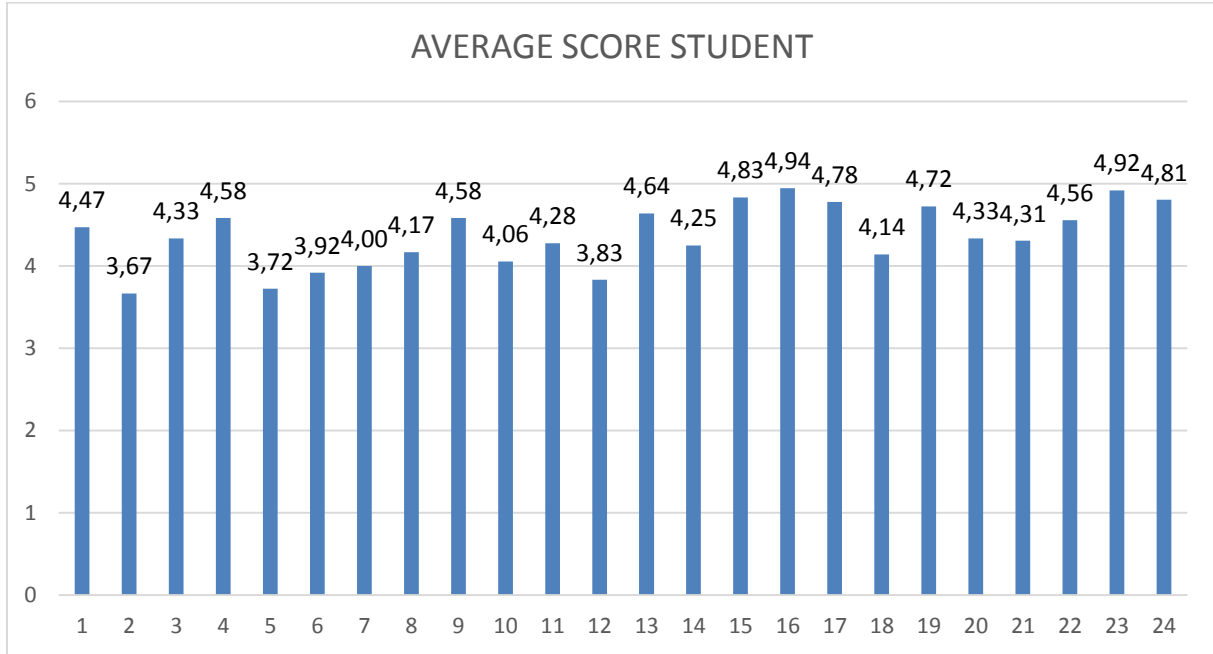
Note: Participants 1 to 12 are VG1-students. Participants 13-24 are NTNU-students.

Unacceptable sentences:

Note: Participants 1 to 12 are VG1-student. Participants 13-24 are NTNU-students.

Appendix 5: The Acceptability Judgment Test: In categorical order

5 pre-test sentences:

1) Gia dog owns a

   Not acceptable   1   2   3   4   5   Acceptable

2) You a clever student are

   Not acceptable   1   2   3   4   5   Acceptable

3) She went every day to school

   Not acceptable   1   2   3   4   5   Acceptable

4) Mary kissed Peter goodbye

   Not acceptable   1   2   3   4   5   Acceptable

5) I used to live abroad

   Not acceptable   1   2   3   4   5   Acceptable

18 wrong control sentences:

1) Eats Lisa ice-cream

   Not acceptable   1   2   3   4   5   Acceptable

2) Loves mom her children

   Not acceptable   1   2   3   4   5   Acceptable

3) I to work have

   Not acceptable   1   2   3   4   5   Acceptable

4) You nice look today

   Not acceptable   1   2   3   4   5   Acceptable

5) Marcus his sister helped

   Not acceptable   1   2   3   4   5   Acceptable

6) Frogs scary are

Not acceptable   1   2   3   4   5   Acceptable

7) Bill watched all day TV long

Not acceptable   1   2   3   4   5   Acceptable

8) Halloween scary can be for children

Not acceptable   1   2   3   4   5   Acceptable

9) Emily switched with Amanda chairs

Not acceptable   1   2   3   4   5   Acceptable

10) Monica are happy

Not acceptable   1   2   3   4   5   Acceptable

11) Bob drived the block around

Not acceptable   1   2   3   4   5   Acceptable

12) Lars and Sally is friends

Not acceptable   1   2   3   4   5   Acceptable

13) Joe and Lisa works together

Not acceptable   1   2   3   4   5   Acceptable

14) Brita walk mountain

Not acceptable   1   2   3   4   5   Acceptable

15) Leo dance to music

Not acceptable   1   2   3   4   5   Acceptable

16) The Theatre Benny to loves to go

Not acceptable   1   2   3   4   5   Acceptable

17) Bob dies ten years ago

Not acceptable   1   2   3   4   5   Acceptable

18) Laura don't know much about love

Not acceptable   1   2   3   4   5   Acceptable

18 correct control sentences:
1) I like football

Not acceptable   1   2   3   4   5   Acceptable

2) Hanna walks to school every day

Not acceptable   1   2   3   4   5   Acceptable

3) Monica and Harry are friends

Not acceptable   1   2   3   4   5   Acceptable

4) Martha did not know anything about it

Not acceptable   1   2   3   4   5   Acceptable

5) George studies French

Not acceptable   1   2   3   4   5   Acceptable

6) Therese had to eat

Not acceptable   1   2   3   4   5   Acceptable

7) Joe is studying this weekend

Not acceptable   1   2   3   4   5   Acceptable

8) Lara got engaged yesterday

Not acceptable   1   2   3   4   5   Acceptable

9) Sarah wanted to learn Norwegian

Not acceptable   1   2   3   4   5   Acceptable

10) Bill hoped to achieve a gold medal last season

Not acceptable   1   2   3   4   5   Acceptable

11) Boys and girls do not always understand each other

Not acceptable   1   2   3   4   5   Acceptable

12) I read about it in the newspaper

Not acceptable   1   2   3   4   5   Acceptable

13) You are angry with me

Not acceptable   1   2   3   4   5   Acceptable

14) He looked upset

    Not acceptable   1   2   3   4   5   Acceptable

15) Monica had to go home

    Not acceptable   1   2   3   4   5   Acceptable

16) Foreign languages can be challenging to learn

    Not acceptable   1   2   3   4   5   Acceptable

17) Tom works every Wednesday evening

    Not acceptable   1   2   3   4   5   Acceptable

18) He wanted to move out

    Not acceptable   1   2   3   4   5   Acceptable

6 Acceptable Bare Noun Phrases:

1) We watched television

    Not acceptable   1   2   3   4   5   Acceptable

2) Nina is a twin

    Not acceptable   1   2   3   4   5   Acceptable

3) You are a genius

    Not acceptable   1   2   3   4   5   Acceptable

4) They shared an apartment

    Not acceptable   1   2   3   4   5   Acceptable

5) Robert enjoyed college

    Not acceptable   1   2   3   4   5   Acceptable

6) There is coffee on the table

    Not acceptable   1   2   3   4   5   Acceptable

6 Unacceptable Bare Noun Phrases:

1) He has high fever

Not acceptable	1	2	3	4	5	Acceptable

2) Ticket is already ordered

Not acceptable	1	2	3	4	5	Acceptable

3) She was checked by doctor

Not acceptable	1	2	3	4	5	Acceptable

4) He has Norwegian citizenship

Not acceptable	1	2	3	4	5	Acceptable

5) Car is made from metal

Not acceptable	1	2	3	4	5	Acceptable

6) You are angel

Not acceptable	1	2	3	4	5	Acceptable

6 acceptable determiner phrases

1) Ruth killed the man

Not acceptable	1	2	3	4	5	Acceptable

2) John went to the prison

Not acceptable	1	2	3	4	5	Acceptable

3) The dodo is extinct

Not acceptable	1	2	3	4	5	Acceptable

4) That building is the tallest one in the city

Not acceptable	1	2	3	4	5	Acceptable

5) I own the two oldest existing books about Trondheim

Not acceptable	1	2	3	4	5	Acceptable

6) I live in the big white house

Not acceptable	1	2	3	4	5	Acceptable

6 unacceptable determiner phrases

1) Hanna dropped that the milk-carton

   Not acceptable   1   2   3   4   5   Acceptable

2) Sara liked to ride the white the horse

   Not acceptable   1   2   3   4   5   Acceptable

3) I drove there in the my car

   Not acceptable   1   2   3   4   5   Acceptable

4) Man the's discovery

   Not acceptable   1   2   3   4   5   Acceptable

5) I've seen the big house the

   Not acceptable   1   2   3   4   5   Acceptable

6) Bella was the prettiest girl in the town

   Not acceptable   1   2   3   4   5   Acceptable

6 acceptable possessives

1) I dropped my son off at college

   Not acceptable   1   2   3   4   5   Acceptable

2) My glasses broke in class

   Not acceptable   1   2   3   4   5   Acceptable

3) The enemy's destruction of the city

   Not acceptable   1   2   3   4   5   Acceptable

4) The picture's focus was on my dress

   Not acceptable   1   2   3   4   5   Acceptable

5) The students admired Sarah's picture by Rembrandt

   Not acceptable   1   2   3   4   5   Acceptable

6) Those are Valerie's books

   Not acceptable   1   2   3   4   5   Acceptable

6 unacceptable possessives

1) Every man loves mother his

   Not acceptable   1   2   3   4   5   Acceptable

2) Alexander shot the father to the bride

   Not acceptable   1   2   3   4   5   Acceptable

3) That is Louisa her cat

   Not acceptable   1   2   3   4   5   Acceptable

4) The building to Peter was the tallest one

   Not acceptable   1   2   3   4   5   Acceptable

5) The tail to the cat was crooked

   Not acceptable   1   2   3   4   5   Acceptable

6) The photo showed the happy family mine

   Not acceptable   1   2   3   4   5   Acceptable

Appendix 6: Parental consent form

Forespørsel om deltakelse i forskningsprosjekt

Til elever og foreldre/foresatte ved Byåsen videregående skole

Jeg er en masterstudent ved NTNU som søker deltagere til et forskningsprosjekt. Formålet med studien er å se på hvilke setninger elever ved Vg1 og masterstudenter ved NTNU med norsk som morsmål vurderer som akseptable eller ikke. Prosjektet skal videre danne bakgrunn for masteroppgaven min som ser på nordmenns bruk av engelske nominalsetninger.

I denne forbindelse trenger jeg 15 elever på Vg1 med norsk som morsmål til prosjektet mitt. Hvilke elever det er som blir spurt om å delta er det skolen som avgjør.

De elevene som ønsker å delta i undersøkelsen og som får tillatelse hjemmefra vil bli bedt om å utføre tre tester. Med test menes ikke en prøve i skoleforstand, men derimot en forskningsmessig test. Først vil deltagerne bli bedt om å utføre to småtester som skal gi en slags indikasjon på grammatikk- og vokabularkunnskapene deres i engelsk. Deretter vil de bli bedt om å utføre en hovedtest som går ut på å vurdere ulike engelske setninger og hvor akseptable de er utfra en gitt skala. Til sammen vil testene ta omtrent 30 minutt. Målet med disse testene er ikke å kartlegge hvor flinke elevene er, men sikter på å føre til noen statiske data. Prosjektet omhandler også en testgruppe bestående av masterstudenter ved NTNU som har engelsk som masterfag. Det vil derfor bli aktuelt å sammenligne de to gruppene for å se om det er noen relevante forskjeller i hvilke setninger de vurderer som akseptable og ikke.

Resultatene av testingen skal kun brukes i forbindelse med one-up prosjektet sin forskning, og vil være fullstendig anonymiserte før de brukes i offentligheten. Utenom one-up prosjektet sine kontakter ved Byåsen videregående skole vil mine medarbeidere bestå av masterveilederne mine ved NTNU: førsteamanuensis Terje Lohndal og professor Mila Vulchanova. I første omgang lagres alle resultatene med en personkode som tilsvarer hver elev på en atskilt navneliste slik at navn på eleven og resultater på testene ikke oppbevares på samme sted. Ved prosjektets slutt i november 2013 vil dataene anonymiseres fullstendig ved at elevenes navn og andre personopplysninger slettes helt.

Deltakelse i prosjektet er selvsagt frivillig, og hvis dere ikke svarer på denne forespørselen, vil eleven ikke bli involvert i studien. Hvis dere har spørsmål eller ønsker mer informasjon om prosjektet, må dere svært gjerne kontakte meg. Godtar både elev og foreldre at eleven deltar i prosjektet, kan dere selvsagt likevel ombestemme dere og reservere dere når som helst. Dere behøver i så fall ikke gi noen begrunnelse for hvorfor dere ønsker å trekke dere.

Hvis dere å si ja til å delta i forskningsprosjektet, vil eleven få utdelt et spørreskjema som må besvares før utførelsen av testene. Her vil deltagerne bli spurt kort om relevant informasjon i forhold til deres bakgrunn for engelsk. Spørsmålene vil blant annet omhandle hvor ofte de ser, hører eller bruker engelsk i hverdagen, men også om de har hatt noen relevante utfordringer med tanke på språklæring. Dette kan for eksempel gjelde syn eller eventuelle diagnoser. Denne informasjonen vil behandles konfidensielt på lik linje med all annen personlig informasjon som kommer fram gjennom prosjektet. Skulle dere se at dere ikke ønsker å fylle ut dette skjemaet, kan dere la være å returnere det, og dere vil da regnes som å ha trukket dere fra prosjektet uten at dere trenger å foreta dere noe mer.

Med aller beste hilsen,

Ingrid Frugård
Mastergradsstudent,
NTNU, Institutt for språk og litteratur
Tlf: 45686198, e-post: frugard @stud.ntnu.no

PS - Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

_____

☐   Ja, jeg godtar å delta i forskningsprosjektet

_____   _____   _____

Elevens navn   Sted og dato   Foresattes underskrift

Appendix 7: Consent form NTNU

Informasjon om deltakelse i forskningsprosjektet:
«Acceptability judgments of English Noun Phrases by Norwegian L1 students»

Jeg er en masterstudent ved NTNU som søker deltagere til et forskningsprosjekt. Formålet med studien er å se på hvilke setninger elever ved Vg1 og masterstudenter ved NTNU med norsk som morsmål vurderer som akseptable eller ikke. Prosjektet skal videre danne bakgrunn for masteroppgaven min som ser på nordmenns bruk av engelske nominalsetninger. I denne forbindelse trenger jeg 15 deltagere blant masterstudenter ved NTNU som har engelsk som masterfag.

Dersom du godkjenner å bli med på dette forskningsprosjektet vil du bli bedt om å svare på et skjema som skal redegjøre litt for din bakgrunn i engelsk. Spørsmålene vil blant annet omhandle hvor ofte du ser, hører eller bruker engelsk i hverdagen, men også om du har hatt noen relevante utfordringer med tanke på språklæring. Dette kan for eksempel gjelde syn eller eventuelle diagnoser. Deretter vil du bli bedt om å utføre tre tester. Først vil du bli bedt om å utføre to småtester som skal gi en slags indikasjon på grammatikk- og vokabularkunnskapene dine i engelsk. Deretter vil du bli bedt om å utføre en hovedtest som går ut på å vurdere ulike engelske setninger og hvor akseptable de er utfra en gitt skala. Til sammen vil testene ta omtrent 30 minutt. Målet med disse testene er ikke å kartlegge hvor flink du er, men sikter på å føre til noen statistiske data. Prosjektet omhandler også en testgruppe bestående av elever på Vg1. Det vil derfor bli aktuelt å sammenligne de to gruppene for å se om det er noen relevante forskjeller i hvilke setninger de vurderer som akseptable og ikke.

Bakgrunnsinformasjonen og resultatene av testingen vil bare håndteres av meg og mine medarbeidere, og vil være fullstendig anonymiserte før de brukes i offentligheten. Mine medarbeidere består av masterveilederne mine ved NTNU: førsteamanuensis Terje Lohndal og professor Mila Vulchanova. I første omgang lagres alle resultatene med en personkode som tilsvarer hver deltager på en atskilt navneliste slik at navn på deltager og resultater på testene ikke oppbevares på samme sted. Ved prosjektets slutt i november 2013 vil dataene anonymiseres fullstendig ved at elevenes navn og andre personopplysninger slettes helt.

Deltakelse i prosjektet er selvsagt frivillig, og hvis du ikke svarer på denne forespørselen, vil du ikke bli involvert i studien. Hvis du har spørsmål eller ønsker mer informasjon om prosjektet, må du svært gjerne kontakte meg. Godtar du å delta i prosjektet, kan du selvsagt

likevel ombestemme deg og reservere deg når som helst. Du behøver i så fall ikke gi noen begrunnelse for hvorfor du ønsker å trekke deg.

Med aller beste hilsen,

Ingrid Frugård
Mastergradsstudent,
NTNU, Institutt for språk og litteratur
Tlf: 45686198, e-post: frugard @stud.ntnu.no

PS - Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Svarslipp
_____

☐   Ja, jeg godtar å delta i forskningsprosjektet «Acceptability judgments of English Noun Phrases by Norwegian L1 students».

(Signert av prosjektdeltaker, dato)

Appendix 8: The background questionnaire

Bakgrunnsinformasjon for forskningsprosjekt om nordmenns vurderinger av engelske nominalsetninger

Tusen takk for at du har sagt ja til å delta i vårt forskningsprosjekt om nordmenns vurderinger av engelske nominalsetninger. I dette skjemaet ber vi om bakgrunnsinformasjon som er nødvendig for at resultatene fra undersøkelsen skal kunne brukes.

Alle opplysningene du gir her, vil senere bli behandlet uten direkte gjenkjennende opplysninger. En kode knytter deg til dine opplysninger gjennom en deltakerliste. Det er kun autorisert personell knyttet til prosjektet som har adgang til deltakerlisten og som kan finne tilbake til infoen. Del B og C av dette skjemaet vil bare oppbevares med koden. All informasjon vil bli anonymisert ved prosjektslutt. Det vil ikke være mulig å identifisere deg i resultatene av studien når disse publiseres.

Legg merke til at skjemaet har 4 sider.

Skjemaet leveres direkte til meg på testdagen

Med takknemlig hilsen,

Masterstudent Ingrid Frugård,

Førsteamanuensis Terje Lohndal og professor Mila Vulchanova, NTNU

Del A: Personlig informasjon

Fag/Yrke/Linje/Studieretning?: _____

Fødselsår: _____

Kjønn   ☐ Kvinne   ☐ Mann

Bostedskommune: _____

> Deltakerkode:
> (Fylles inn av prosjektleder)

Del B: Språklig bakgrunn

Morsmål

Er norsk morsmålet ditt?

☐ Ja   ☐ Nei

Hvis ja, har du andre morsmål i tillegg?

☐ Ja   ☐ Nei

Hvis ja, hvilke(t) språk? _____

Hvilket språk bruker dere hjemme?

_____

Hvor ofte leser du tekst skrevet på norsk?

☐ hver dag   ☐ flere ganger per uke   ☐ et par ganger i uken   ☐ av og til   ☐ aldri

Hvor ofte skriver du tekst på norsk?

hver dag   flere ganger per uke   et par ganger i uken   av og til   aldri

Engelsk og andre fremmedspråk

I engelsk, hvordan vurderer du ferdighetene dine på hvert av disse områdene?

	Grunnleggende	Middels	Avansert	Flytende
Lesing				
Skriving				
Snakke				
Lytte				

Totalt				

Har du bodd i, eller hatt lengre opphold i, et land hvor engelsk er hovedspråk?
        □ Ja   □ Nei

        Hvis ja, hvor lenge varte oppholdet/oppholdene?-
_____

Har du vært på kortere (under 14 dager) reise i et land hvor engelsk er hovedspråk?
        □ Ja   □ Nei

Har du bodd i, eller hatt lengre opphold i, et land hvor annet enn engelsk er hovedspråk?
        □ Ja   □ Nei

        Hvis ja, hvor var det, og hvor lenge varte oppholdet/oppholdene?
        _____

        Hvilke språk kan du utover morsmålet ditt og engelsk?
        (Hvis du ikke snakker andre språk, hopp over denne)

Språk	Nivå			
	Grunnleggende	Middels	Avansert	Flytende
Tysk				
Fransk				
Spansk				
- angi språk				

- angi språk				
- angi språk				

Hvor ofte leser du tekster på engelsk?
hver dag   flere ganger pr uke   et par ganger i uken   av og til   aldri

Hvor ofte skriver du tekster på engelsk?
hver dag   flere ganger pr uke   et par ganger i uken   av og til   aldri

Hvor ofte lytter du til/hører du engelsk?
hver dag   flere ganger pr uke   et par gagner i uken   av og til   aldri

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

Hvor ofte spiller du engelskspråklige dataspill?
   hver dag flere ganger pr uke   et par ganger i uka   av og til   aldri

        Hvilken type spill spiller du?
_____

Del C: Andre faktorer i språklæring

Har du, eller har du hatt, problemer med synet utover normal brillebruk?
        □ Ja   □ Nei
Har du, eller har du hatt, problemer med hørselen?
        □ Ja   □ Nei

Har du, eller har du hatt, språkvansker av noe slag (spesifikke språkvansker, lese-/lærevansker eller lignende)?

□ Ja   □ Nei

Hvis ja, spesifiser: _____

Har du, eller har du hatt, andre diagnoser som kan tenkes å påvirke språklæring (ADHD, autisme eller lignende)?

□ Ja   □ Nei