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Code Switching Among Norwegian Teenagers

Vilde Haug Almestrand

Master’s thesis

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Keywords

CS – Code switching

L1 – First language

L2 – second language

CA – conversational analysis

Abstract

This master thesis explores the phenomenon known as code-switching i.e. The alternative use of one or more languages in conversation, among three Norwegian teenagers occupied with gaming and the use of English in their spare time. I use data collected as part of the VOGUE project (Brevik, 2019b). By examining the language use and structures among these teenagers, the use of English during game play as well as two teenagers' own perceptions were used to find a pattern to these switches. Based on theory on language use (Auer 1984, 1990; Blom & Gumperz, 1972; Gumperz, 1982; Myers-Scotton, 1993a; Li Wei, 1994, 1998) and language structures (Myers-Scotton, 1993b) as well as theory of loanwords and structural constraints of code-switching (Poplack, 1988; Myers-Scotton, 1993b; Muysken, 2011) three categories were sorted from the data set: (1) The use of English loanwords with Norwegian affixes, (2) code-switching between English and Norwegian in full English sentences, and (3) code-switching using single English words in Norwegian sentences. The largest proportion of switches as found in the data set were that of single-word switches. In addition, two participants' own views on their language use during their spare time were addressed, showing that both participants were aware of themselves switching languages while speaking, and had different views of switching during an interview. The main difference between these two interview participants were that one of them tried to avoid switching during the interview, whereas the other one sometimes noticed himself switching, and sometimes did not notice it during the interview.

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Table of contents

1. Introduction

Globalism has contributed to the spread of English around the world, with colonization, industrialization and pop culture. This spread of English has been particularly noticeable after the Second World War and the introduction of new medias: Rock and Roll's first superstars, television, movies, video games, and perhaps one of the greatest developments of the last century: *The internet*, providing the potential for instantaneous communication through virtual language communities like instant messages, chat groups, e-mail, FaceTime, Skype and so on (Svartvik & Leech, 2006). With the dynamic development of communication through the internet, we have also seen the growth of social media, which has opened doors of globalization and welcomed English into our homes, making communication and the influence of English across borders more accessible than ever.

Social media are used in a number of ways by today's teenagers and makes communication far less difficult than it used to be. Online chatting has become the norm in communication and is occurring in many households around the world, combined with online gaming (so called multiplayer online games), English (which has become the lingua franca) is preferred. Since many of the online games produced, are in English, vocabulary related to these online games is picked up, used and sometimes altered, mixed or modified to fit the first language of gamers.

Several studies have been conducted to find out about linguistics and communication during online game plays. Boes and Vinh-Hung (2017) studied how French gamers preferred English over French while talking about the game World of Warcraft in online chat forums. However, studying how English is used among gamers in the Norwegian gaming environment has not been given much attention by researchers. Sunde's (2016) study of how the Norwegian Counter Strike gaming environment use English as well as their self-report on language use will be presented in chapter 3.

English is an international language and is spoken by more second language or additional language (L2) speakers than native speakers (L1) (Svartvik & Leech, 2006). Often in addition to the national languages of smaller nations, and in return an international language like English can influence a language with fewer speakers, like Norwegian. Institutions like The

Language Council of Norway try to discourage the trend of using English words in Norwegian everyday communication, précising that Norwegian is a language that is suitable enough for communication.

Teenagers are aware of the use of English in everyday communication. In an article Nordal (2019) asks if we are seeing the emergence of the first generation of bilingual Norwegians. Nordal (2019) asked if teenagers today are less proficient in both English and Norwegian, or if we are mainly met with a new generation of bilingual teenagers. In the article teenagers attending a Norwegian high school are asked about their use of English one student answers that it was a wakeup call when she had to use an *English to Norwegian* dictionary during a Norwegian mock exam at school. As a result, the student understood that she had to spend more time engaging in the Norwegian language. However, this student is not an underachiever. She even won the prestigious award *Holbergprisen* for a student middle school research project named "Norsk holder basically på å dø ut" (translated: Norwegian is basically becoming extinct). Based on their own use of English while discussing which topic to choose, the participants chose to investigate a small group of students' language skills in both Norwegian and English as well as their attitudes towards the two languages. Their main findings were that the boys in the study were more proficient readers of English than Norwegian compared to the girls. The result was mostly due to the boys not being very proficient readers of Norwegian. (Haugum et al., 2018).

While the study conducted by Haugum et al. (2018) was mainly being conducted by teenagers attending middle school in Norway, it provides insight into the everyday language of teenagers. The importance of the Holberg school project study is that it provides useful insight into how teenagers in Norway use English in their everyday communication and that they are aware of the extensive use as well as proficiency of English among their peers.

A study conducted by Brevik (2019a) connected teenagers' use of English outside of school to their reading skills in English and Norwegian. When comparing reading tests in two languages, Brevik discovered that some students were better readers in English than in Norwegian and named this group outliers. After conducting an individual study on these outliers, a correlation between their L2 English and L1 Norwegian reading skills were identified, which were connected to their spare time activities, where they engaged in using English on various platforms. After conducting both quantitative (test results, survey, and

language logs) and qualitative studies (focus groups and interviews) on 21 individuals, Brevik (2019a) divided these outliers into three identity profiles: The gamer, the surfer, and the social media user. These three profiles relate to the time these outliers spent on the use of English for online gaming, internet surfing, and social media. Interestingly, all three profiles switched between English and Norwegian.

The overall goal for this thesis is to investigate code-switching between English and Norwegian among Norwegian teenagers in two classes at a school in Norway. I first became aware of and interested in the topic of Code-Switching (hereafter: CS) while studying English in Trondheim several years ago. Since then, I have noticed several switches between English and Norwegian in everyday conversations as well as topic-related conversations among friends, peers, coworkers, and students. The interest never waned and kept me so much intrigued that I wanted to investigate CS among Norwegian teenagers to see if this was merely something that I noticed, or if they noticed the CS themselves. This will be made clearer in the data presentation in this thesis.

Much attention has been given to CS over the last fifty years and defining what is and is not CS differ between linguists. However, according to Li Wei (2013), the term is used **to describe a range of linguistic behavior that involves the use of more than one language or language variety in the same interaction** (Li Wei, 2013, p. 1). CS does not only have to deal with different languages, but also includes different language varieties or dialects within the same conversation. I will have a closer look at some of the theories in Chapter 2.

The overarching research question that I aim to answer in this thesis is:

To what extent do Norwegian teenagers code-switch between English and Norwegian when playing online games?

In addition to the three research questions below:

RQ1: What are two Norwegian teenagers' perceptions of their own language use while playing online games?

RQ2: What types of CS occurrences can be observed among the teenagers when participating in online gaming?

RQ3: Is there a pattern as to when and how gamers CS during game play while speaking with their Norwegian friends?

To be able to answer these research questions I will first have a closer look at the exposure to and use of English in Norway, before moving on to define how researchers in the field of linguistics define CS.

1.1. English in Norway

Norwegian is a language mainly spoken in Norway, hence in a limited geographical region, nor is it an official language in any other country in the world. Officially, Norway has two written variants *bokmål* and *nynorsk.* However, there are several distinct dialects native to different geographical regions of Norway which all differ in grammar, pronunciation, and vocabulary. To illustrate the influence of the English language in Norway, we will first have a closer look at English as a global language before moving on to looking at the status of English in Norway.

In great contrast to Norwegian, English is a global language in today's modern world and non-native speakers even outnumber native speakers of English (Svartvik & Leech, 2006). Traditionally, English is thought of as spoken in 'circles' as proposed by Kachru (1985), by dividing the English-speaking population into three circles consisting of the *inner-*, *outer-,* and *expanding* circle. The *inner circle* which is the smallest one consists of native speakers of English from countries like the USA, England and Australia. The *outer circle* the second largest one, illustrates where English usually is spoken as a second or official language. Here we usually find former British colonies like India and Kenya. Finally, the most spacious circle is the *expanding circle,* where English is taught in school as a foreign language as well as being an important communicative function for international contacts. The expanding circle continues to expand as a growing world population becomes dependent on the use of English in areas of industry, politics, tourism, education and so on.

From these three circles of English, Norway is traditionally placed in the expanding circle as English is depicted as a foreign language with no official status. However, in a country like Norway with around 5,5 million inhabitants where the majority of the population speak Norwegian, English has an important function indeed. Not only is English taught in Norwegian schools from the 1st grade of elementary school until year 11, but the English subject is even distinct from the foreign language subject in schools, and has its own curriculum (Kunnskapsdepartementet, 2020).

However, English does not have an official status in Norway like it does in countries like India. Consequently, English can be said to be in transition as the use and proficiency of

English in Norway does not belong either as a foreign language (EFL) nor a second language (ESL) (Brevik &Rindal, 2020). Rindal and Brevik (2020) write:

> The relatively high English proficiency in Norway, combined with out-of school English use, domain use in for instance business and higher education, identity issues and English language use in school […]English didactic research, suggests that English is no longer just a "foreign" language to Norwegians. Norwegian adolescents meet and interact with English in various contexts for various purposes. It is inevitable that there are feelings attached to this language, that English language use is in some ways personal. Even though Norwegian adolescents do not necessarily need English to communicate among themselves, English can still reflect who they are and what they want, thus forming part of speakers' identity repertoire (p. 31)

The development and use of several 'Englishes' is attached to the identity of the speakers. Earlier the break-up of the British empire left several types of 'Englishes' that were formerly seen as non-standard dialects of English, such as Jamaican Creole, these varieties are now looked upon as independent languages. On the other hand, people are still faced with different varieties of the English language and may 'feel the pull from two opposite poles- the need to identify with one's local community and the need for international communication' (Svartvik & Leech, 2006, p. 224). These remarks can be seen in relation to the term *diglossia* often used by sociolinguists to separate between the 'high' a more formal use of the language and 'low' vernacular varieties often used for everyday communication within one given community. *Polyglossia* is perhaps a more suitable term, meaning 'many-tongued-ness' meaning that a speaker of English might need one English for one's local community, one for the international communication and perhaps something in between (Svartvik & Leech, 2006).

Identity and use of language are connected. What was explained above is just an example of how intricate the English language is and how it is developing. While the standard variety of a language like English is the 'goal' for education and international communication, the local vernacular is the one the local community *choose* to affiliate with. One can argue for this being the case for second language users of English as well, as they too connect the language use to an identity as to what *action* they want to express, *who* they want to be when speaking as well as *who* you want as your audience. The topic of identity and language use will be further explained in chapter 2 with emphasis on the use of gaming and out of school use of English.

The need for proficiency and knowledge of several languages is even reflected in the renewed core curriculum which is relevant for all levels of education in Norway: "All pupils shall experience that being proficient in a number of languages is a resource, both in school and society at large"(Kunnskapsdepartementet, 2017, p. 7). Being proficient relates to the skills of using the language in communication and thus being used as a resource both inside and outside of school. However, the Language Council of Norway discourages linguistic borrowings from English in the Norwegian everyday language.

The Language Council of Norway is responsible for following up Norway's language policy, especially by working towards strengthening the Norwegian language and language diversity (The Language Council of Norway, 2021). Since 2005 the Norwegian Language Council have worked with language cultivation and especially with the pressure on Norwegian from other languages with an emphasis on English.

With the spread of the English language, it is not surprising that it is also influencing the Norwegian language. This influence is something that the Language Council of Norway works with to be able to strengthen the Norwegian language, as well as to emphasize that Norwegian in fact is a well-functioning language in its own sense. The Norwegian Language Council works with finding Norwegian translations for new English words used in the Norwegian language; they name this approach replacement words (*avløserord).*

By translating a situation or a word that we do not have in the Norwegian language, the Norwegian Language Council encourage Norwegians to use the translated form as a substitute to the borrowed form. However, there are several borrowings from English in the Norwegian language today, for example *cowboy, jeans, coca cola, skateboard* and so on. Finally, the encouragement by the Norwegian Language Council is stated as follows "Bruk norsk når du kan, og engelsk når du må!" which translates to "Use Norwegian when you can, and English when you must" (Norwegian Language Council, 2015).

One of these early examples of replacement words or *avløserord* created by the Norwegian Language Council is the English word *skateboard* where the Norwegian translation of this word is *rullebrett*. A study from 1991 investigated teenagers attending high schools in Oslo, who were asked about their views on and use of English language material in Norwegian (Uri & Simonsen, 1991). The study showed that 83.5% of the participants preferred the English word *skateboard* over the Norwegian translation *rullebrett* which was also compatible for the other words that the participants were asked about. When asked why they preferred English to Norwegian, the participants answered that English was cooler, finer, more exciting or sounded better than their Norwegian replacement words. Some even stated that the word *skateboard* was connected to American culture, and that English is a richer language and easier to pronounce (Uri & Simonsen, 1991).

Sunde and Kristoffersen (2018) even states that this anglicization of lexical borrowings goes beyond lexical loans and even includes calques (loan translations). In their study they put forward evidence for how even grammatical structures from English influence the syntax of Norwegian sentences.

The gaming environment in Norway is strongly connected to the international gaming environment where English is the dominant language of both players and in-play language. International communities. 86% of children and adolescents between the ages 9-18 years play computer games, where the majority of these players being male (Medietilsynet, 2020).

The aim of this introduction has been to identify the special role of English in both a global sense as well as in the Norwegian society. This special position is reflected in the new school curriculum, as well as the further concern for the future of Norwegian by the Norwegian Language Council. Teenagers in Norway are proficient in English, and research does show that some teenagers are becoming better readers in English despite their reading skills in Norwegian (Brevik, 2019). In addition, teenagers increasingly use English in their spare time. However, this preference is not new for today's youth, as Uri and Simonsen (1991) found students in Oslo preferred English words to the Norwegian replacement words. Nevertheless, it is time to have a closer look at the theory of CS to make it clearer how languages not only influence each other, but how they are mixed and used together in conversation.

1.2. Thesis outline

Following Chapter 1, I present the theoretical framework and overview of relevant prior research, in Chapter 2. In Chapter 3, I account for the methods I have used for gathering and analysing the data material. The study uses data collected from the VOGUE project and aims to use sociolinguistic methods to observe and analyze naturally occurring data. In chapter 4, I present the findings of my study, framed by theoretical concepts from Chapter 2. In chapter 5, I discuss the findings in light of theory and prior research. In Chapter 6, I offer some concluding remarks and suggestions for further research.

2 Theoretical Overview and Prior Research

The theory chapter aims to present some of the most influential contributions to the research on Code-switching (CS) from the last part of the 20th century. The emphasis will be on theories developed within the field of CS (2.1-2.3) in addition to research on bilingualism (2.4), and identity (2.5) as well as studies among gamers and the use of CS (2.6).

2.1 Code-switching

Much attention has been given to CS over the last forty years. Until the 1970's, CS was seen as lack of linguistic competence, where a person was keeping one or more language apart. Using CS was consequently viewed as not knowing at least one of the languages proficiently: "CS was considered part of the performance of the imperfect bilingual, motivated by inability to carry on a conversation in the language on the floor at the moment" (Myers-Scotton, 1993a, pp. 47-48). Since the 1970´s more recent research has focused on CS and today CS is considered to be "grammatically structured and systematic and therefore can no longer be regarded as deficient language behaviour" (Nguyen, 2014, p. 1).

The traditional definition of CS, according to Nguen (2014) is "the alternative use of two languages within the same conversation" (p.1) (cf. Milroy & Gordon 2003; Myusken, 2011). This definition of CS is however quite vague and opens for different interpretations. Research has also shown that one can switch between dialects (Bloom & Gumperz, 1972), not merely different languages or as a way of establishing a status of belonging in a community (Myers-Scotton, 1993 a): "The term "code-switching" can describe a range of language (or dialects) alternation and mixing phenomena whether within the same conversation, the same turn, or the same sentence-utterance" (Milroy & Gordon, 2003, p. 209). Within this view, "two languages" is interpreted differently. It can refer to more than two languages, and even different dialects. Similarly, "within the same conversation" indicates that the switch must occur sometime within a conversation, it can be a single word switch, or it can be whole sentences. The only indication of the switch is that it is happening within the same conversation.

Due to this rather open definition of CS, it is not easy to distinguish what is classified as CS and what is not. Several researchers have proposed their own theoretical framework to explain and identify CS as to *why* it appears, *how* and *when*. In the following chapter, I will separate between two views of CS, namely *language use* and *language structure*. Research on CS as *language use* studies how CS functions in concrete situations to perform communicative and social functions (Auer, 1984, 1990; Blom & Gumperz, 1972; Li Wei, 1994, 1998; McSwan & Faltis, 2020; Myers-Scotton, 1993a). In contrast, analysis of CS as *language structure* which aims to studying the underlying grammatical structure of CS (Poplack, 1988; Myers-Scotton, 1993b).

I will now have a look at some of the theories developed for CS as *language use*, among those is Situational and Metaphorical CS (Bloom & Gumperz, 1972), the Markedness Model (Myers-Scotton, 1993a) as well as some conversation strategic theories (Auer 1984, 1990; Li Wei,1994, 1998). For the interest of this thesis, I will also take a look at one theory of CS as *language structure*, namely the Matrix Language Framework Model (Myers-Scotton, 1993b) as well as how to separate CS from loanwords (Poplack 1988, 2012; Muysken 2011). An overview is presented in Table 1 below.

Table 1. Overview of theories and theorists CS of *language use* and *language structure (*based on McSwan and Faltis, 2020)

Language Use (2.2)	
Situational and metaphorical code-switching (2.2.1)	Blom & Gumperz (1972)
We-and they code (2.2.1)	Gumperz (1982)
Markedness theory – social motivations of code-switching (2.2.2)	Myers-Scotton (1993a)
Conversation analysis – conversational contribution of code-switching (2.2.3)	Auer (1984, 1990); Li Wei (1994, 1998).
Language Structure (2.3)	
Matrix language framework model (2.3.1)	Myers-Scotton (1993b, 2001)
Loanwords (2.3.2)	Poplack (1988, 2012)
Structural constraints on CS (2.3.2)	Muysken (2011)

In deciding on what code to use in a specific social setting social factors are decisive either for the *users* of the language or for its *uses. The users* of the code is relevant when observing who is talking to whom (wife – husband, teacher-students etc.) as the social factors and relationships will determine the participants choice of code. Likewise, the *uses* i.e. where is the setting of the conversation: - the social setting or context (school, home, office) is an important factor to consider when observing language use, as they may influence the code choice. The purpose of the interaction and the topic can also be an important factor for language choice.

> The reason for the choice of one dialect rather than another involves similar social considerations – the participants, the social setting and the topic or purpose of the interaction. Because of these similarities, sociolinguists use the term variety (or sometimes code) to refer to any set of linguistic forms which patterns according to social factors (Holmes, 2013, p.6).

We will now have a closer look at the theories of CS from Table 1 above.

In sum, as the study of CS has gone through a historical development, CS research is represented in several fields within linguistics, among those, bilingual studies, psycholinguistics, and sociolinguistics. In an attempt to organize some of the most relevant theories for this thesis, the theoretical overview will focus on the way McSwan (2020) has summarized the research of CS (see Table 1), namely, CS as *language use* and *language structure*. CS as *language use* studies the social functions of CS, in contrast to analysis of CS as *language structure,* which aims to studying the underlying grammatical structure of CS.

2.2. CS as Language Use

"Language use is the study of how language is realized in concrete situations to perform communicative and social functions" (McSwan & Faltis, 2020, p. 6).

2.2.1 Situational and metaphorical code-switching

In addition to making a great contribution to the study of CS on language use, Blom and Gumperz's (1972) research is important as it says something about both the external factors (situational switching) as well as the language choice (metaphorical switching) influencing the way CS appears within a conversation. This theoretical notion worked as a contrast to previous studies that said something about the language knowledge of the participants. The Blom and Gumperz (1972) study put forward research on how these external situations and language choices could contribute to how participants switched dialects amid a conversation.

Their study focused on CS between the Norwegian dialect *ranamål* and *bokmål* in a small fishing village in Hemnesberget, Norway. Blom and Gumperz's (1972) article received much attention for their *situational* and *metaphorical* CS. This was perhaps due to their focus on the *social functions* of CS which serves as a contrast to earlier research prior to the 1970's on CS that had mostly focused on macro-level research drawing on the societal functions of CS and not on the interactional behaviors of speakers. Sociolinguists prior to the 1980's studied how external factors like topic, setting, relationships between the participants, community norms and values influenced the speaker's choice of code in conversation (Auer, 1998). This is also the case for the metaphorical and situational switching theories presented by Blom and Gumperz (1972).

By studying the two varieties, *bokmål* (the standard dialect) and *ranamål* (the local dialect), Blom and Gumperz (1972) showed that "the linguistic separateness between the dialect and the standard, i.e., the maintenance of distinct alternates for common inflectional morphemes, and function, is conditioned by social factors" (p. 417). While bokmål is officially used in more formal settings like education, the dialect ranamål is more commonly used in informal settings at home. Furthermore, the adult population of Hemnesberget had equal access to both varieties. The standard *bokmål*, which they acquired through school and church, and the

dialect form *ranamål,* acquired in social settings and at home. Thus, the standard and the dialect were distinguished by Blom & Gumperz (1972) as separate varieties "because of the cultural identities they communicate, and the social values implied therein" (p. 417).

Blom and Gumperz (1972) used both interview-based methods and observation of conversations among two groups. Both groups were native to Hemnesberget and thus had equal access to the local dialect of the area. One group deviated from the other – the 'intellectuals', as they were called. They were a group of college students who had returned to their home village for the summer. According to Blom and Gumperz (1972), they deviated slightly from the original group still settled in Hemnesberget as they had a common background – as intellectuals. Based on these observations, Blom and Gumperz (1972) introduced the terms *situational* and *metaphorical switching*. *Situational switching,* like the term implies, has to do with the situation. The switch occurs when something external to the speaker interferes with the shift in language, for example the introduction of a new topic or a new person walking in, implying that the switch in situation would trigger the use of one of the two available varieties as the appropriate one for the change in situation. *Metaphorical switching,* on the other hand, deals with the shifting of languages carried out by the speaker, while the situation remained unchanged, thus the changing of variety would influence the atmosphere within the conversation.

This type of distinction differs from the term *diglossia* (as explained in the previous chapter) due to the situation or the shifting of language. As something external to the speaker alters the switch, it is not being related to the macro-level idea of 'high' or low' vernacular language of the conversation or society as a whole:

> Situational switching, where alternation between varieties redefines a situation, being a change in governing norms, and metaphorical switching, where alternation enriches a situation, allowing for allusion to more than one social relationship within the situation" (Blom & Gumperz, 1972, p. 408).

In a later study, Gumperz (1982) moves away from the term ‘metaphorical switching’, and instead uses *conversational switching*:

> Conversational code switching can be defined as the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems. Most frequently the alternation takes the form of two subsequent sentences, as when a speaker uses a second language either to reiterate his message or to reply to someone else's statement (Gumperz, 1982, p. 59).

While not abandoning the theory of metaphorical switching entirely, Gumperz (1982) develops the symbolic approach of metaphorical switching and introduces ‘*we’ and ‘they-codes*. While ‘*they’-codes* are linked to formal and public interactions, *‘we’-codes* are informal interactions connected to home and family bonds. The we-code is often connected to the minority language of a culture, while they-code is connected to the majority language. We-codes are often recognized with the use of everyday vernacular language, while they-codes are of a more formal nature. It must be added that there is a distinction between we-codes and they-codes and the term diglossia as mentioned earlier in this thesis. The term diglossia deals with already long-term established social codes, while the we-codes and they-codes are products of socialization within a community.

Gumperz’s metaphorical CS later received criticism by Auer mostly focused on the infinite and variety for determining the switches (Auer 1984, p. 4):

> The distinction between situational and metaphorical code-switching must be criticized from both ends; at the ‘situational code-switching’ end, the relationship between language choice and situational features is less rigid, more open to re-negotiation, than a one-to-one relationship, at the ‘metaphorical code-switching’ end, things are less individualistic, less independent of the situation. The distinction collapses and should be replaced by a continuum.

Next, I will explain the second concept related to CS as language use, namely the markedness model.

2.2.2 Markedness model

The markedness model (Myers-Scotton, 1993a) is distinguished from metaphorical and situational switching as it is speaker motivated and seeks a way of predicting language choice in a bilingual exchange in contrast to being influenced by the interpretive symbolism and values from the environment around the speakers. The markedness model intends to explain social motivations for CS in addition to be universally adaptable to other situations than CS. While recognizing the work of Blom and Gumperz (1972) as a great contribution to the study of CS, Myers-Scotton (1993a) like Auer (1984) criticizes their *situational and metaphorical* distinctions: "If two types of switching are presented as differentially motivated, they imply a model which is bipartite in some sense" (p. 119).

Myers-Scotton (1993a) further argues that metaphorical switching can be seen as two different motivations: CS as an unmarked choice and CS as a marked choice. Consequently, the markedness model differs from *situational and metaphorical switching* in one major way; the switch is speaker-motivated and not based on a change in the situation or meaning. It is up to the speakers to make their choice of codes during conversation, and this distinction can be either *marked* or *unmarked*.

The separateness between *marked* and *unmarked* is not absolute. An u*nmarked* choice is the linguistic code that creates less attention to the choice of code, and therefore is the most usual choice: Speakers tend to make *unmarked* linguistic choices, meaning:

> Speakers have a sense of markedness regarding available linguistic codes for any interaction, but choose their codes based on the persona and/or relation with others which they wish to have in place. This markedness has a normative basis within the community, and speakers also know the consequences of making marked or unexpected choices (Myers-Scotton, 1993a, p. 75).

The unmarked choice is explained by Myers-Scotton (1993a) as a safer choice, as it serves an expectation for the interpersonal relationship and thus, speakers usually make this choice. However, speakers are always in negotiation for the most suitable choice for a given

situation, and as a consequence, speakers sometimes estimate the costs and rewards of all the choices and therefore make their choices based on these costs and rewards, typically unconsciously (Myers-Scotton, 1993a). Speakers are always in negotiation, meaning that they engage in a dynamic enterprise in conversation, which Myers-Scotton (1993a) addresses stating that, "I hope to have conveyed the idea that a major motivation for variety in linguistic choices in a given community is the possibility of social-identity negotiations" (p. 111).

Furthermore, the markedness model implies that there is a form of rights-and-obligations (RO-sets) between participants engaging in conversation. The unmarked choice is the one creating less notice to themselves in conversation. Thus, the model argues that the speaker has a choice of rights and obligations within a conversation where he/she can decide what code to use. While unmarked choice of linguistic code is dependent on the situation and people who are engaging in conversation, a marked choice would deviate from the expected code norms. The addressee influences the choice of model, which is why Myers-Scotton deems the model "a speaker-centred model" where the speakers themselves make these choices trying to increase their own positions or conveying their own perceptions.

Myers-Scotton (1993a) presents a model that consists of a set of general maxims which applies to any code choice, including CS. Following what she names the negotiation principle, meaning that participants are in constant negotiation within conversation. Myers-Scotton (1993a) distinguishes between three maxims: (1) the unmarked-choice maxim, (2) the marked-choice maxim and (3) the exploratory-choice maxim. One type of unmarked CS, (sequential unmarked CS) is similar to Blom and Gumperz's (1972) *situational switching*. The sequential unmarked CS indicates a change in external factors, like the introduction of new people in conversation. However, Myers-Scotton (1993a) argues that the change is still speaker-oriented and thus, different from Blom and Gumperz's (1972) *situational switching.*

The unmarked choice, however, will be different in different situations (uses) and with different individuals (users). McSwan and Faltis (2020) explain this as follows:

> "The RO [rights and obligations] set is indexed by binary features, turned on and off as in other subfields of linguistics with plus (+) and minus (-). Speaking English in Nairobi, for instance, "may be indexical of any of a set of attributes, including most prominently plus high education level/socio-economic status', 'plus authority', 'plus formality', and *plus official'" (Myers-Scotton, 1993 a, p.86).

In some settings, the lingua franca of a community may be the unmarked choice in conversation, like the use of English in formal settings. By contrast, in informal settings, like conversations with friends, using only English can be looked upon as a marked choice in conversation. Thus, according to McSwan and Faltis (2020), "people assert a specific identity by the way they speak, and codeswitching is an aspect of speech choice which contributes to identity" (p. 8).

2.2.3. Conversational analysis

Conversational analysis (CA) considers how CS can be understood by studying the conversation between bilingual speakers. In this section I will have a closer look at theories within CA, like the sequential approach developed by Auer (1984, 1990) as well as Li Wei (1998) and their criticism of situational vs. metaphorical switching (Blom & Gumperz, 1972) and the markedness model (Myers-Scotton, 1983). The CA theory is applicable to this thesis as the data are based on conversations between participants during online game play.

Questioning the use of situation as an analytical concept for defining CS with a pre-selected set of norms to measure linguistic performance, Auer (1984) developed the sequential approach derived from work within CA. The sequential approach is concerned with the turn-by-turn interaction in conversation and language choice and the *how* question of how *CS* is constructed in conversation. In contrast to both the markedness model and metaphorical vs. situational switching, and especially the RO-sets in the markedness theory, where status and a macro-level social values are in focus, as well as the underlying motivation for CS, the CA approach rather focuses on *how* these variables (like identity) influence the process of interaction:

> Those who adopt the CA approach to code-switching argue that we must not assume that, in any given conversation, speakers switch languages in order to 'index' speaker identity, attitudes, power relations, formality etc.; rather, we must be able to demonstrate how such things as identity, attitude and relationships are presented, understood, accepted or rejected, and changed in the process of interaction (Li Wei, 1998, p. 163).

In other words, the procedures, i.e. the *how* questions should be analyzed and asked before looking at the *why* question for CA researchers (Auer, 1984). This is in contrast to the markedness model that focuses on the underlying motivations for CS.

Within CA, a switch within conversation is instead considered a conversational resource. The sequential approach studies how this turn-by-turn interaction is understood by the participants in conversation. According to Auer (1984), these participants repeatedly create structure for subsequent conversational activities. In turn, they create new structures in conversation implying that every utterance and every turn changes or restores others. Hence, in bilingual conversation the variety used by *person 1* will influence the subsequent variety and turn for *person 2* in conversation. This is also the case for how Auer (1984) defines CS, indicating that it has to do with the dynamics of conversation: "the meaning of code-switching must be interpreted with reference to the language choice in the preceding and following turns by the participants themselves" (Auer, 1984, p.3). An example of how this turn-by-turn conversation can be analyzed with the sequential approach can be seen below, referring to German and Italian:

> If German is habitually used by Italian children in Germany for conversational activities such as joking, innuendo, side remarks, evaluations and assessments, whereas Italian is not, then this conversational usage will both construe and display the values associated with German (e.g. 'peer language'). The interpretation of such code alternation is not imported from outside, it is built up in the conversation itself, and on the basis of similar cases in the coparticipants' experience (Auer 1990, p.78).

In the same work, Auer (1990) defines CS as dealing with language contact and the receiver in conversation:

> code-alternation (used here as a cover term, i.e. hypernym for code-switching and transfer; -> below) covers all cases, in which semiotic systems are put in a relationship of contiguous juxtaposition, such that the appropriate recipients of the resulting complex sign are in a position to interpret this juxtaposition as such" (Auer, 1990, p. 71).

This way, Auer (1990), is separating CS from code-alternation as it has to be a contiguous stretch of talk, stating that:

> The criterion of juxtaposition implies that gradual transitions from one code into the other cannot be classified as code-alternation either. This, a gradual transition from dialect into standard may be a very important interactional event, but it works differently from code-alternation and should not be confounded with it (Auer, 1990, p. 72).

Another researcher preoccupied with conversational analysis, is Li Wei (1998). Li Wei (1998) praises the markedness model (Myers-Scotton, 1993), stating that it is "the most influential theoretical model of the social and pragmatic aspects of code-switching that has been proposed since Gumperz' situational versus metaphorical switching distinction" (Li Wei, 1998, p. 157). However, he is noting that the markedness model for CS is focused on the analyst's interpretation of the bilingual conversation, the participant's intention, and not the idea of local creation of meaning of linguistic choice. He further argues that this contrasts with CA which focuses on the "member's procedures of arriving at a local meaning of language alternation" (Li Wei, 1998, p. 157). Furthermore, Li Wei questions the RO-sets of the markedness theory of CS:

> Bilingual speakers change from one language to another in conversation, not because of some external value attached to those particular languages, but because the alternation itself signals to their co-participants how they wish their utterances to be interpreted on that particular occasion (Li Wei, 1998, p. 161).

The alternation itself can also be a form of restarting the interaction or introducing a new topic. Additionally, Li Wei (1998) argues that the correlation between topic, turn and so on among bilingual speakers is not strong enough to predict what language choice the participants would use in a certain context. Using examples from a Cantonese-English speaking family, Li Wei (1998) further emphasizes how the change of language variety may signal and influence turns in conversation as well as to restart the conversation by switching codes:

> Bilingual speakers change from one language to another in conversation not because of some external value attached to those particular languages, but because the alternation itself signals to their co-participants how they wish their utterances to be interpreted on that particular occasion (Li Wei, 1998, p. 161).

Based on empirical evidence, Li Wei (1994) tested how the effects of interlocutor, topic and setting influenced language choice of the participants of his study, showing that the most decisive factor was the identity of the addressee affecting the switch. Furthermore, he argues that CS must be analyzed as a sequential development of interaction with focus on the context of the conversation. This serves as a contrast to the markedness theory's rejection of local creation of social meaning. In addition, it serves as a contrast to the researchers' own analysis of the macro-social value by assuming that participants are intending that meaning to be understood by their listeners.

Li Wei (1994) also suggests another way of analyzing CS, by focusing on a CA called *the social network perspective.* This perspective is focusing on the participant's social relationships, socio-economic background and how it influences language choice. He points to the micro-interactional perspective's inadequacy to take the social dimensions into consideration. Rather focusing on how speakers vary their choices according to qualitative research variables such as interlocutors, topic, and setting. Furthermore, Li Wei (1994) suggests two approaches to investigate how these social dimensions relate to linguistic variation, namely (1) social status, and (2) social networks.

According to Li Wei (1994), one can look at the social status as the determinant for the speakers' linguistic behavior, by using one social feature of the participant like sex, age, or class to study it independently from the social interaction. However, one of these variables

are insufficient as to determine the language variation alone. The other approach is called the social network approach. Through examining the identities of the people which the participant often interacts with, in addition to the identity of the participant, one can assume that there is a connection between the linguistic behavior of the participant and their associates. By looking at how participants develop their social identities through interaction, one can say something about how their language use is both shaped by their interpersonal relations and how it is maintained (Li Wei, 1994).

2.3 CS as Language Structure

CS as *language structure* aims at studying the underlying grammatical structure of CS language use. It is the study of how language is realized in concrete situations to perform communicative and social functions (cf. McSwan & Faltis, 2020).

2.3.1. Matrix language theory

CS has traditionally been identified as a phenomenon occurring among bilingual speakers, and much research has focused on code-switching in bilingual communities. Less research has focused on how L2 users switch between their L1 and their L2 in natural speech. However, there is a fine line between what is determined as code-switching or merely loanwords that has been taken into the language. Poplack (2012) proposes that CS can eventually become integrated words in the base (matrix) language of a speech community.

The matrix language theory as proposed by Myers-Scotton (1993b, 2001) is a theory consisting of a dominant and an underlying language in conversation. While the matrix language is the dominant or main language in CS utterances, the embedded language has a smaller part in conversation. CS can either be intersentential which is CS where codes are switched between sentences, while intrasentential switches happens within the same sentence. The matrix language theory suggests that the main language of a conversation can be termed the *matrix language,* while the additional language can be termed *the embedded language,* as proposed by The Matrix Language Frame (Myers-Scotton, 1993b, 2001). In the example below I have used two sentences from the VOGUE project as an illustration. Here, the matrix language is Norwegian, while the embedded language (in italics) is English:

Example 1

Speaker: Sekundet jeg *loader* inn, så bare jaa: *server connection mistake.*

Speaker: English: The second I load, it just well: server connection mistake.

Matrix language is explained by Myers-Scotton (1993b, 2001) as the language contributing to a morphosyntactic frame in a situation where languages are mixed. The matrix language will be the base of the morphological system in conversation and thus determine the sequence of the words in addition to system morphemes; meaning functional words and conjunctions adapted to the matrix language, while the embedded language will include content words embedded in the matrix language frame. As a consequence, the embedded language will create a system error like shown in Example 1 where the matrix language word of l*oader* would be *laster* and the English word root verb *load* has been adapted to a Norwegian suffix ending -*er* to fit the matrix language and grammatical functions of the sentence.

Recent research on bilingualism has been developed further and conversations where CS is present among bilinguals are explained by finding the dominant language (L1 or L2) of the bilingual. Li Wei (2013) presents examples of bilingual utterances where two languages are present in a conversation, similar to Example 1 above.

The dominant-language hypothesis is another way of explaining the utterance in Example 1 above:

> The dominant-language hypothesis states that in word-internal codeswitching, grammatical morphemes of the DOMINANT language may co-occur with lexical morphemes of either the dominant or the non-dominant language. However, grammatical morphemes of the NON-DOMINANT language may co-occur only with lexical morphemes of the non-dominant language." (Petersen, 1988, p. 486).

This is true for the sentence in Example 1, where the word *loader* adapts to the morpheme of the matrix or dominant language of the sentence (Norwegian *laster*) where the suffix follows the grammatical pattern of Norwegian (the matrix language of the sentence), in contrast to the English suffix -*ing*.

Different codes can also merge, not only within a conversation but even within the same sentence or words (intra-word), like in Example 1. To discover the dominant language of a bilingual speaker, it is usually the one they can keep a conversation in entirely without switching code. Petersen (1998) discovered in her study that one of the participants did not

switch to L1 Danish when speaking L2 English, but when speaking L1 Danish, she did switch to L2 English, making English her dominant language.

While other theories might reject the word-internal switch as an actual code-switch, due to the switch changes the grammar of the base language while speaking is worth noting that there is a controversy if morphological CS can be called CS in its full sense, as it is often instead interpreted as loanwords. The next section will discuss the notion of loanwords and when it can be determined a loanword or CS.

2.3.2. Loanwords

As a contrast to the studies of social motivations for CS (Blom & Gumperz 1972; Myers-Scotton 1993a; Auer 1984, 1990; Li Wei 1994, 1998), Muysken (2011) has worked with structural constraints on CS. Furthermore, Poplack et al (1988) distinguishes between what can be identified as loanwords and what can be identified as CS by using a large corpus. In this section I will have a closer look at the structural constraints of CS and what can be determined CS or simply 'loanwords'.

A problem with this rather open definition of CS, is that it can be difficult to distinguish a switch from a lexical borrowing in a conversation. As a way to distinguish if it is a switch or not, Muysken (2011) explains this distinction as a morphological process. If the word is accompanied by an affix of the base language, this will indicate that the loan word is adapted morphologically into the base language. According to this notion, switching can occur due to a lack of vocabulary in an L2. Intralanguage learners of an L2 can use a term from their L1 in a conversation in the L2, due to the lack of lexical knowledge in the L2. This can also occur the other way around. For example, one can borrow words from the L2 and use it in a conversation in the L1 if there is no equivalent word available in the L1. Such borrowings are explained by Holmes (2013) as 'lexical needs' and most commonly involve single words, and mainly nouns. It is noteworthy to distinguish between lexical borrowing of this form and CS, where the speaker using CS, "have a genuine choice about which words or phrases they will use in which language" (Holmes, 2013, p. 43)

Lexical borrowings differ in form from code-switchers. They are often adapted to the speaker's L1, meaning that "they are both pronounced and used grammatically as if they were part of the speakers first language" (Holmes, 2013, p. 43). An example from New Zealand, where the Maori word *mana* is borrowed into New Zealand English due to no corresponding meaning in the English language. The word *Maori* itself is also adopted into New Zealand English, and is pronounced in a different way from how the *Maoris'* pronounce it. New Zealand English has changed the grammatical form of the word by pluralizing it by adding the plural inflection '*s'* to refer to the *Maoris.* This differs from the Maori language, where the plural is not marked by this inflection of the noun. As opposed to lexical borrowing of words, code-switchers- "tend to switch completely between two linguistic systems – sounds, grammar and vocabulary" (Holmes, 2013, p. 44), and not only merge the odd word into an L1.

Poplack et al's (1988) study consists of a large corpus of CS that was collected in the French speaking part of Canada ranging from the 1980's to the early 2000's. A total of 120 speakers participated in the data collection and their speech was analyzed for the degree of linguistic integration into French and social assimilation by the francophone community. The two patterns for borrowing were categorized as (1) loanwords, and as (2) CS. While not all single-word switches are loanwords, they might not be CS either. Poplack et all (1988) distinguishes these single-word switches as *nonce borrowings, widespread loans, priori and CS. Nonce borrowings* are words that only occurred once in the corpus, while *widespread loans* were used by a number of speakers in the study. P*riori* was distinguished as words that relates to a borrowing process over time: "the degree of linguistic assimilation of the word or with its history of attestation as a loanword in the language" (Poplack et al, 1988, p. 50). Lexical borrowing words are identified in the study as individual L2 words adapted into the L1 (usually phonologically and morphology), used in the pattern of the L1 and occupying the sentence slot which is dictated by the L1 syntax. This is distinguished from CS, which Poplack et al. (1988) identifies as "MULTI-WORD L2 sentence fragments which remain morphologically and syntactically unadapted to recipient-language patterns" (Poplack et al., 1988, p. 53). An example is presented below where (a) is an example of loanwords, and (b) is an example of CS:

a. II a dit que des fois la, quand il marchait la, il marchait *over dead bodies.* (014/746)'He said that sometimes when he walked, he was walking over dead bodies.'

b. J'ai la- la philosophic ancienne on va dire, que, tu sais, si tu as faim, *get off your ass and go and work,* tu sais? (105/212)'I have the- the old philosophy, let's say, that, you know, if you're hungry, get off your ass and go and work, you know?'

The main aim of this section has been to introduce the term CS in light of CS as *language use* and as *language structure*. Researchers interested in CS as language use study what is happening around the participant and the conversation asking the *how* question, focusing on the underlying motivations for the speakers. Researchers preoccupied with language structure, are more interested in the *what*- question, focusing on the grammar of the switch, when it takes place, and what the meaning implies. In addition, a brief definition of Poplack et al.'s (1988) distinction of CS and loanwords have been addressed. I hope I have made it clear that these are some of the theories relevant for the overall aim of this thesis and I will use them in both the classification and in the discussion of the data material. In the final sections of this chapter, I refer to theory related to bilingualism and identity, as these relate directly to the participants of my study; being users of both L1 Norwegian and L2 English in the activity of online gaming, who identify as gamers.

2.4. Bilingualism theory

The first part of this theory chapter (2.2), CS was explained looking at the social motivations for the individual speaker in conversation and different means to analyze the meaning of CS. In the second part (2.3), the distinction between loanwords and CS were addressed, in addition to the constraints of CS. In this part (2.4) the Idea is to get a general background on bilingualism.

Defining who is and who is not a bilingual can be difficult as is the measurements for defining a bilingual. The study of CS among bilinguals began in the 1950's, with Weinreich (1953) describing bilingualism and bilinguals as, "the practice of alternatively using two languages will be called here bilingualism, and the persons involved bilinguals" (p. 5). In this early stage of studies on bilingualism, there was not much focus on CS, but rather on the macro-societal perspective on bilingualism (MacSwan & Faltis, 2020). Appel and Muysken (1987) stated that, "generally, two types of bilingualism are distinguished: societal and individual bilingualism […] In this sense, nearly all societies are bilingual, but they can differ with regard to the degree or form of bilingualism" (pp. 2-3).

Li Wei (1994) has suggested two models for explaining the macro-societal perspective on bilingualism; *The Complimentary Distribution Model (CDM)* and *The Conflict Model.* The CDM model includes theories such as *diglossia* (Ferguson, 1959) based on Weinreich's (1953) 'domain of language use', which serves the specific functions of language for specific situations in a society. Furthermore, Ferguson (1959) developed the High (H) and Low (L) distinctions of language and variety in certain contexts. Li Wei (1994), being preoccupied with micro-level analysis himself, points out the flaw in this model as it is too preoccupied with the societal level of language choice, and neglecting the possibility of random choice and use by individual speakers and interactions, as well as the change in bilingual societies over time.

The Conflict Model deals with class division among linguistic groups, power relations and social struggles. In contrast to diglossia, researchers attached to the conflict model argues that the two languages involved in diglossia are not equal in terms of power, one is institutionalized from above and is more attached to status and power. This is also the case

for varieties of English, such as standard and non-standard use of English related to class studies in Britain. According to Li Wei (1994), both models assert "societal structure and individuals' language behavior" as well as address how the social structure can determine the language choice of the individual constrained by a higher order of social structures (Li Wei, 1994). The Micro-Interactional Perspective on the other hand, is based on how the individuals themselves are concerned with their own perception and interpretation of the situations and conversations. According to Li Wei (1994), "the emphasis here is on individuals' capacity to make use of the linguistic and social resources available to them in producing and reproducing social structures and social relations" (p. 14).

Defining societal and individual bilingualism is complex; specifically, understanding when we can determine if an individual is bilingual or not. Weinreich (1953) suggested that, "the practice of alternatively using two languages will be called here bilingualism, and the persons involved bilinguals" (p. 5). However, the term code-switching is not a very old term in bilingual research. It first became a term after the work by sociolinguists like Gumperz moved away from the notion of 'switching codes' to the more community-oriented concept of code-switching. By studying how bilinguals mixed languages, including their speech acts, longer chunks of language and by that creating a theoretical frame, researchers implied that CS is both internally rule based as well as an externally community-oriented use of language (McSwan & Faltis, 2020).

Cummins (1979) is another researcher who investigated the internal language of bilingual children, introducing the concept *threshold level of language*. He investigated how the L1 and L2 languages of young people related to their academic skills, and in particular how it influenced the poor academic achievements of minority language children. Earlier, this had been linked to the socio-cultural background of immigrant children. However, Cummins (1979) proposed a need for a theoretical framework that investigated the developmental interrelations between language and thought in the bilingual child, which he named the "threshold" hypothesis and the developmental interdependence hypothesis.

The *threshold hypothesis* assumes that the aspects of bilingualism that might influence the cognitive growth positively are unlikely to be experienced before the bilingual child has acquired a minimum or threshold level of competence in their L2. However, the threshold level of the bilingual child is also dependent on the child's cognitive stage and academic

demands in different stages of their education. The *developmental interdependence hypothesis* says something about the relationship between the L2 and L1. The level of L2 competence is connected to the competence for the child's L1 competence when the intensive exposure to the L2 begins. Thus, this theory sees a relationship between the development of the L1 and L2 competences, which is important to be able to develop and acquire the L2. This development can also have consequences for the child's L1 development. If the child does not have adequate knowledge of their L1 when receiving education in an L2, it can affect the child's L1 so that it can slow down or even cease, which in turn will slow down the L2 language development. The aforementioned hypotheses have contributed to research for bilinguals to show that there is a relationship between the L1 and L2 competence for bilingual children and how it affects their cognitive understanding and development.

These hypotheses also became relevant for Grosjean (1985) and his *holistic bilingualism;* a conceptual framework which aimed to deviate from previous research, where bilinguals were being compared to monolingual norms and the bilingual's two languages. Grosjean (1985) explains that bilinguals are not two monolinguals in one; instead arguing that a bilingual is "a linguistically unique language user whose languages reflect the speaker's unique experience" (McSwan &Faltis, 2019, p. 4).

2.4 Language and Identity

Language contact in today's society opens the doors for building identity through language use and language structures. This indicates that one does not have to be fluent in an L2 to feel attached or see language as a form of identity, for example through the use of English as a gaming language. As the medium of gaming is predominantly English (the lingua franca of both games and players), it is no surprise that the language is picked up, used and even altered or adapted into their L1 by gamers all over the world.

Whether or not a person is considered bilingual, their values, interests, activities, language resources, and culture all make up who you are as a person. Identity and language are strongly connected and will therefore be elaborated on in this section. First, the theory of affinity spaces (Gee, 2017) will be addressed, before moving on to identity in language use and finally, a section on gaming.

Varieties of languages do not only have to be distinguished by geography or formal/informal aspects of language. One can also separate between vernacular and specialist varieties (Gee, 217). Specialist varieties are acquired by immersion in groups who use them for their work, interests, or passion. (Gee, 2017). Within this group of specialist language varieties, one can separate between academic use and non-academic use. Vernacular and specialist varieties of language says something about your language identity. Throughout our socialization, we process and internalize the norms and ideology of society, suggesting that language and language use are norms that we acquire. The vernacular varieties of language are acquired in our primary socialization, i.e., early childhood, and is therefore tied to a person's sense of identity. The specialist varieties of language are more connected to your interests, occupation, institutions, and expertise. These groups develop their own oral and written varieties of language connected to their expertise or interests. By developing a specialist language variety, members of a group will function effectively and work towards their shared interests and goals (Gee, 2017).

Identity is created and explored in relation to others with the same interests. This is what Gee (2017) names 'learning, being and doing', which occur in collaboration with others and as a journey through different *spaces.* An affinity space is "where teaching of all different sort

goes on" (Gee, 2017, p. 5). According to Gee (2017), we all attach ourselves to several affinity spaces, and inside these bigger affinity spaces we have smaller affinity spaces, called *subspaces*. For example, being a Catholic gives access to a catholic affinity space, with several subspaces like home, church, religious events, sports, Rome, the cathedral and so forth. People move in-between these affinity spaces within the larger affinity space of being a Catholic. These people share a set of values, interests, and activities that all connect them to this affinity space. It does not mean that the participation in these affinity spaces is equal for everyone belonging to this affinity space. However, it provides an example on how these affinity spaces work.

These same idea of participating affinity spaces can be transferred to almost any identity community that we are part of. In the modern world, these affinity spaces are also transferable to the digital media: "Gamers do not just play games. When they have a real interest or passion for a game or a type of game, they often take their game-based learning into modern affinity spaces" (Gee, 2020, p. 118). This is true not only for their game-based learning but also for the language used and created in this affinity space – creating a sort of specialist gaming language. This type of specialist gaming language is transferred between different subspaces and used in contact with other 'specialist' users of this variety.

2.5. Studies on CS and use of English among Gamers

In this section I will use empirical evidence from studies among gamers and what evidence that has been put forward in this research. As this field is underrepresented in linguistic research, finding studies conducted among Norwegian gamers and how they use English during gaming was scarce. Therefore, I will first present how French gamers use English in online chat forums, before discussing a study conducted by Sunde (2016) where she studied Norwegian Counter Strike gamers and their use of English as well as their self-report on gaming.

2.5.1. Studies on CS among Gamers

The online game that the participants of this MA thesis played during data collection is called Apex Legends. Apex Legends is a Battle Royale game, meaning an online multiplayer game played in teams and won with the last player standing. Team playing in online games such as Apex Legends makes the individuals communicate and collaborate in order to fulfill the mission to beat their opponents. Apex Legends is a free-to play computer game with over 100 million players worldwide with additional online communities within forums, and chat groups like EA, Steam and Twitch. The game is also part of competitive gaming and is an official e-sport, where players can compete for prizes of millions of dollars; primarily in physical events.

These are communities within the affinity space of Apex Legends players. In such spaces, gamers are commonly communicating in English, which means that even Norwegian players read, learn and acquire game information and strategies through these channels (Brevik and Holm, in press). The communication used by these gamers is in turn affected by the gaming community as a whole with gaming and popular culture references and jargon used across several games and forums. Linguistic use of English (gaming language) as well as a mix of English and Norwegian while communicating with their team members offers an exceptional insight into the language and mix of English and Norwegian in an online video game.

Gamers play games and bring their game-based knowledge experiences into other affinity spaces, where they can discuss, learn about, and teach the games they play (Brevik et al., 2020; Gee, 2017). The physical gaming rooms are connected to other players' gaming rooms, LAN parties, gaming stores and conventions and so on (Brevik and Holm, in press). Gee (2017) explains:

> A video game is a set of well-designed problems to solve. The design of the game teaches and mentors players to solve the problems, using principles of teaching and learning. A game can be designed around any wall-defined and challenging set of problems, for example, designing civilizations (Civilization), fighting wars (Call of Duty), solving algebra equations (Dragon Box), building a family and community (The Sims), or cleaning a house when you have a four-inch-tall house-cleaning robot (Chibi Rio) (p. 118).

2.5.2 Gaming as a multimodal activity

Boes and Vinh-Hung (2017) investigated how French gamers of the game World of Warcraft (WoW) switched between French and English in online chat forums. The game has been translated to French for more than 10 years. However, gamers prefer the English language when referring to the game. Even with game-specific words translated into French, gamers in the study argued that the English words were still more specific and relevant. This again, has do to with the affinity space of gamers (Gee, 2017), where some words are so established in the gaming community that it makes them hard to swap with translated words in the matrix language. Gaming-specific words that were recognized in this study, were for example 'lag', which means that the internet connection is too slow. A phrase like 'slow-response-time' does not come as naturally as the gaming-jargon 'lag'.

By calculating the prevalence of English and French in the chat forums, Boes and Vinh-Hung (2017) found that in each of the total corpus of six forums, English language words comprised around 1% only. The results showed that the corpus consisted of mostly single-word switches between the two languages, that the interactive language in these forums was French and that English was the operative language of the game.

When determining if these switches could be categorized as CS, Boes and Vinh-Hung (2017) identified CS to be a kind of transition between the fantasy and the off-game world. The insertional CS was used to refer to gaming-specific vocabulary with a majority of them being nouns and some verbs. In Boes's and Vinh-Hung's (2017) corpus, longer sentences in English occurred, but not nearly as often as single-word CS. The words used were inflected in accordance with French morphology to fit in to a French sentence, like the examples below (Boes and Vinh-Hung, 2017, p. 16):

> Example 1:
> Je retourne farmer et je tes dis ça.
> [..]
> Hello, je suis également en train de farm
>
> Example 2:
> Que ça soit irl ou ig, NEVER GIVE UP!

Boes and Vinh-Hung (2017) distinguish Example 1 as a borrowing with 'farm' having the French infinitive ending 'er'. This is because 'farm' is used as an infinitive verb as to do a lot of work to get resources. The response, however, was from another user who used the English word 'farm' with no French ending. Example 2 shows another use with the slang word 'irl' meaning *in real life* in a French sentence followed by an English clause. Boes and Vinh-Hung (2017) therefore defined these examples as CS, as they follow the English grammar more than the French, making English the matrix language of this sentence. However, stating that these examples are a minority of the results from the corpus.

Similar results were found in the Norwegian context by Sunde (2016). She investigated structural aspects of language contact between English and Norwegian in the Norwegian gaming culture. With both written and oral data collected from the Norwegian Counter-Strike environment, Sunde (2016) explored how English and Norwegian were mixed on a lexical level. The study is based on interviews with an active group of gamers from this environment, trying to show how English was expressed in the Norwegian computer game jargon. Sunde (2016) also showed what function English had in this environment, based on information about the informants' own motivation to use English and their self-reports of

their language use. Being preoccupied with the Norwegian language under pressure by English, Sunde (2016) aimed to find evidence for whether or not this was the case, and if so, in what way.

Sunde (2016) used recordings from a Counter Strike tournament arranged by Telenor in the spring of 2015, among five male gamers between the ages of 23-28 years, as well as self-recordings of the gamers' dialog during the game, and recordings from the commentators (sent on TV). The data material also consisted of written material from a Counter-Strike group on Facebook. Sunde's (2016) main findings suggest that Norwegian is the matrix language (Myers-Scotton, 1993b) of the interactions, with the use of English root words (outlined) and Norwegian suffix endings like in the example below (Sunde, 2016, p. 138):

> a) Gamer: Selv om han *trad*a seg sjøl ut [...] så lot han fortsatt *team maten* sin som var på A værende igjen aleine, og han blei *overwhelm*a av alle terroristene [...].
>
> b)Gamer: Noen som kan finne ut av *value*n på kniven min? Eller ja, *price checke* den?
>
> a) Even if he traded himself …he still let his team mate on A be left alone, and he was overwhelmed by all the terrorists […]
>
> b)Anyone who can find out the value of my knife? Or, like, price check it?

In addition, Sunde (2016) identified longer clauses of English words mixed with the Norwegian sentences and to full English sentences. However, the majority of the identified CS were single word switches. She identified some full sentences of English but decided to rule these out as they were a minority. The study also showed similar results as in Boes's and Vinh-Hung's (2017) study; namely that most of the root words switched from the L1, Norwegian to the L2, English were verbs and nouns. Sunde (2016) determined these switches as loanwords and not as CS, "due to the morphological adjustment of the English morpheme" (Sunde, 2016, p. 146). She further distinguished these loans as *cultural forms* and *core forms.*

Cultural forms are related to words, objects or concepts new to the base language and which are copied or imported to fill certain gaps in the language. *Core forms* are replacements of already established expressions in the base language. According to Myers-Scotton (1993b) these core forms are forms used by participants who would like to identify with the culture of the embedded language. Cultural forms are automatically established as loanwords as there are no existing counterparts available in the matrix language, while core forms are often used as an alternative way of communicating to the original form. Therefore, only core forms can be identified as CS. According to Myers-Scotton (1993b), all cultural forms appearing more than three times in a corpus will be established as 'established loans', and the other way around all core forms appearing less than three times in a corpus will be determined CS.

During the interview part of Sunde's (2016) study, the participants were asked about their language use. Sunde (2016) stated that the terminology used were established in the counter-strike environment when the first game hit the market in 1999. Replacing these words with a Norwegian counterpart would according to the informants in the study interfere with the communication in the game. During the interview situation, the gamers also stated that English was connected to a more professional language within the gaming-community and thus, could reach more people by using English in contrast to Norwegian.

In this section I have referred to previous research on language use in the gaming world with two studies from two different countries and games. The results are astonishingly similar, with the matrix-language determining the suffix of the embedded language in sentences, and with the gaming language accountings for most of the switches or loans. The most common switch seemed to be that of single-word switches in both Boes's and Vinh-Hung 's (2017) and Sunde's (2016) studies, where nouns and verbs were the main English words being switched or loaned. The main difference between the two studies is Boes and Vinh-Hung (2017) concluded with the words being defined as CS as they followed the English grammatical structure, while Sunde (2016) distinguished them as established loans, cultural forms and core forms.

3. Methods

In this chapter, I present the methodological considerations of this thesis, in order to answer my overarching research question: To what extent do Norwegian teenagers use CS between English and Norwegian when they play online games? First, I present the VOGUE project, which my study is part of (3.1), before presenting the research design (3.2) and the data material (3.3). The data material section is divided into two parts, semi-structured interviews (3.3.1), which elicit the participants' own opinions about the use of English and Norwegian, and gaming recordings, which elicit the participants' actual use of English and Norwegian during game-play (3.3.2). Then, I present the participants (3.4), including the sampling process. Next, I address the data collection procedures and the data material (3.5), before I outline the data analysis (3.6). Finally, I discuss research credibility and research ethics (3.7).

3.1 The VOGUE project

I was lucky enough to be invited to join the VOGUE project during the fall of 2019, through the MA course EDID4102 – English in and out of school, a subject mainly for students taking their MA degree in English didactics at the University of Oslo. The VOGUE project was initiated by the project leader Lisbeth M. Brevik in 2015 and aims to investigate students' use of English both in and out of school, in particular through social media use, online gaming and internet surfing. The VOGUE project collects data among students attending Norwegian secondary schools and their teachers. The research team has previously collected both large-scale data and case-study data (Brevik, 2016, 2019a; Brevik, Olsen, & Hellekjær, 2016; Brevik & Hellekjær, 2018).

For the school year 2019-20, Brevik initiated a new case study at a large vocational school. The study received approval from the Norwegian Centre for Research Data (NSD), and all participants provided written informed consent. At the school, two English teachers and their students in four vocational classes (ages 16-18) were sampled for participation. The research team collected qualitative data (observation, classroom video recordings, students' texts, student and teacher interviews, students' screen recordings both in the classroom and from

gaming at home) and quantitative data (surveys, language logs, test scores and school grades).

My role in the VOGUE project was to participate in the data collection during the fall of 2019. I was responsible for collecting language logs among the students and to conduct some of the student interviews. Being part of the VOGUE project also meant that all research team members were given access to all the collected data. For the interest of this thesis, I selected student interviews and screen recordings from the online gaming at home to answer my research questions. While the VOGUE project focuses on the use of English both in and out of school, the main focus of this MA thesis is to investigate the language use outside school among a few selected participants, which will be further explained in section 3.3.

As a student of the English language, it was exciting to be able to analyze interviews with Norwegian teenagers, and to see how they used English and Norwegian while playing online video games. By triangulating these data types, I was able to get a broader understanding of the participants' language use and language structures. These data were highly relevant for my research questions, my research interest, the need for naturally spoken data to be able to distinguish CS, as well as the participants' own opinions regarding their language use. Hence, I used both the formal method of interview as well as the more informal method of game-play recordings as the basis of this thesis.

3.2 Research Design

For my thesis, I have chosen a qualitative research design to analyze the data and to answer the research questions. In addition to the overarching research question, I have formulated three sub-questions as can be seen in Table 2 below:

Table 2. Research design including three sub-questions (RQs).

Reasearch question	Data material
RQ1: What are two Norwegian teenagers' perceptions on their own language use while playing online games?	Elicited data: Semi-structured interviews
RQ2: What types of CS can be observed among the teenagers when participating in online gaming?	Naturally occurring data: Screen recordings of online video gaming at home
RQ3: Is there a pattern as to when and how gamers use CS during game play while speaking with their Norwegian friends??	

Table 2 shows that the research design involves two methods in order to answer these research questions: (a) elicited data: semi-structured interviews to answer RQ1, and (b) naturally occurring data: screen recordings of online game play at home, to answer RQ2 and RQ3. The purpose of choosing both the formal semi-structured interviews and the more informal online gaming recordings is first, to see how the participants described their own language use and if they saw this as a mix of English and Norwegian, and second, to see how a group of gamers used English and Norwegian while playing online games. To answer RQ1, a deductive approach was adapted, by examining whether they perceived their language use in line with CS. To answer RQ2 and RQ3, an inductive approach was adapted; first, by observing their language use during game play, and second, by searching for a pattern in their language use (cf. Rasinger, 2013). By triangulating the formal interviews and the informal online video gaming recordings, my aim is to be able to answer the three research questions (see Table 2). The data material and analysis are elaborated below.

3.3 Data material

Here, I will briefly explain the VOGUE standards and procedures used to collect the data I have chosen to use in my MA thesis. These procedures and the interview guide were developed for the VOGUE project and piloted before data collection. First, I present how the interviews were carried out, before showing how the online gaming recordings were obtained. Finally, I describe how the files were stored and meta-tagged at the Teaching Learning Video lab (TLV lab) at the University of Oslo. The VOGUE project collected student interviews and screen recordings from consenting students at a vocational school during three weeks in the school year 2019-20.

This section is divided into two parts: (1) elicited data: semi-structured interviews and (2) naturally occurring data: online gaming recordings. The purpose of choosing both the formal semi-structured interviews and the more informal online gaming recordings is first of all to see how the two participants describe *their own language use* and if they see this as a mix of English and Norwegian, and second, to see how a group of gamers *actually use* English and Norwegian while playing online games. First, I will present how the interviews were carried out and second how the online gaming recordings were obtained. Finally, I will describe how the files were stored and tagged.

3.3.1 Student interviews

The VOGUE project collected student interviews from consenting students at the research site during the school year 2019-20. The interviews were semi-structured (Creswell, 2014), based on an interview guide with pre-defined questions, allowing for follow-up questions formulated by the interviewer during the interviews. I selected the interviews as my main data source, aiming to answer RQ1 (see Table 2). The interview guide was based on previous VOGUE studies supplemented with additional questions. I selected three of the questions in the VOGUE interview guide, relevant for RQ1:

1. *Norwegian*: Hvilke språk snakker du og dine venner med hverandre? [Hvis noen snakker engelsk med norske venner er det spesielt viktig å spørre hvordan og i hvilke situasjoner, og be dem gi eksempler.]
   English: Which languages do you speak with your friends? [If they speak English

with Norwegian friends, then it is particularly important to ask how and in which situations, and to ask then to provide examples.]

2. *Norwegian*: Hva bruker du engelsk til utenfor skolen? Hvordan? Hvorfor? Gi eksempler.
   English: What do you use English for outside school? How? Why? Give examples.
3. *Norwegian*: Hvis eleven spiller onlinespill: Ser du på deg selv som en seriøs gamer? Forklar.
   English: If the student plays online games: Do you consider yourself a serious gamer? Please explain.

As indicated in the above list, the student interviews allowed for detailed, systematic investigation of their reported language use outside of school, along with explanations of their motivation for using the languages. The interviews also gave the opportunity to observe their actual language use in the interviews. The main aim was to conduct interviews where the participants could speak as freely as possible about the topics from the interview guide.

The interview design relied on two audio recorders simultaneously recording the interviews, with a small dictaphone on the table, and a second device linked to the UiO-designed Nettskjema dictaphone application, which transfers and stores the recordings securely on the UiO server. The recordings were instantly encrypted with no opportunity to play the audio recording directly from the device. It is a secure and efficient way to collect audio data. The two-device design provided reasonably good audio recording of the interactions, including back-up. The interviews were transcribed in their entirety. The tool used for transcriptions is called Inqcsribe, which enables the transcriber to use a foot pedal or the keyboard to move back and forth within the audio file and time stamp the utterances.

Interview data is essentially self-reported information, and it is important to be clear about the status of this material and that the study benefits from being complemented or triangulated with data from other sources, such as screen recordings (Beiler et al., 2021). An interview offers the researcher the participants' reporting of events, what they think is

appropriate or comfortable to tell, in terms of what they remember, what they define as their language use in online gaming situations and what they think the interviewer is interested in hearing (Barton & Hamilton, 1998).

3.3.2 Screen recordings of gameplay at home

To answer RQ2 and RQ3 (see Table 2) regarding CS and if there is a pattern or not, I decided to use naturally occurring spoken data collected through screen recordings during gameplay in the participants' homes (Beiler et al., 2021). In this way, the naturally occurring language complements the interview data. Such data triangulation is valuable, as self-report is not sufficient on its own to collect naturally occurring language use. Naturally occurring data and language production is difficult to collect in the first place, and unlikely to be appearing in a formal setting like an interview situation. Although the participants may be able to say something about how they *use* language in informal settings, this information will only be their reported usage and not a clear example of the language use itself.

Naturally occurring data is commonly considered difficult to collect because it may be unpredictable (Sealey, 2010), and a natural setting was needed to obtain trustworthy data for my thesis. When wanting to analyze naturally occurring spoken data, it is important that we consider the "circumstances in which the kind of language [of interest] is likely to be produced" (Sealey, 2010, p. 28). For the online gaming screen recordings, these circumstances included the fact that the screens would be recorded by the participants themselves, using their own computers while gaming (Beiler et al., 2021). The aim was to collect recordings in a so-called 'natural habitat' for the participants to behave as naturally as possible while gaming.

The participants were instructed by the VOGUE team how to record their gameplay at home, using the software program OBS Studio, which allowed them to video record their computer screen as well as their voice, and the voice of their co-players, and also to mute their voices when they needed (Beiler et al., 2021). In line with the VOGUE procedures, the team developed written instructions of how the participants should conduct the recordings in line with privacy regulations (Beiler et al., 2021), see Figure 3.

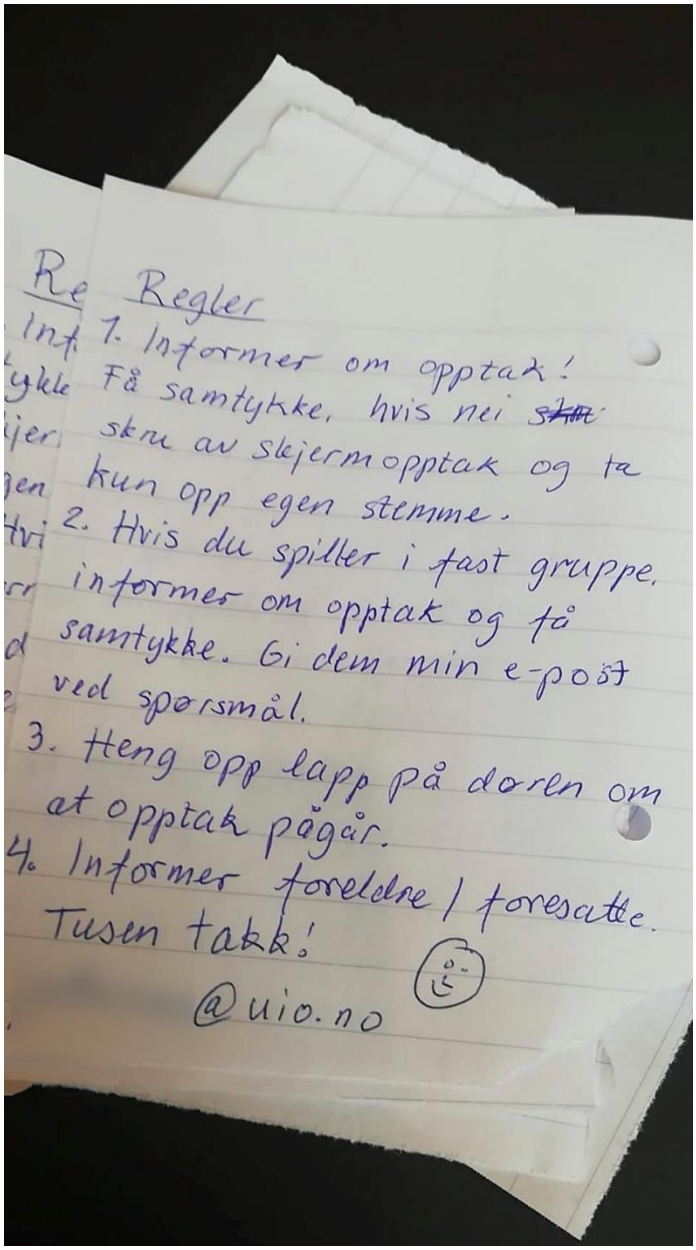

Figure 3. Procedures for the participants' recordings (Beiler et al., 2021, p. 252).

Figure 3 shows the procedure of asking the co-players participating in the games to consent at the start of each recording for their oral and written communication during gameplay. The screen recordings were saved by the participants on encrypted flash drives before being taken back to the TLVlab the next day, where all personal information was erased, and the recordings safely stored (Beiler et al., 2021). The screen recordings were transcribed using the same method as for the interviews, with time stamps to indicate when the participants spoke and for how long.

3.3.3 Meta Tagging

The interview files and the screen recordings were tagged using meta data, i.e. information that describes additional information through a set of attributes (tags). The use of a standard for meta tags structures the information into a machine-readable form, which increases the probability for the data to be findable and accessible in the future. The VOGUE project uses a specific standard for meta tagging, developed in collaboration with the TLVlab. During and after data collection, the VOGUE research team, including MA students, used this system to label all the VOGUE data files.

3.4 Participants and sampling

In this section, I will elaborate on the participant sampling, in terms of how I selected my participants from the overall VOGUE sample.

3.4.1 The VOGUE sampling procedure

The VOGUE project used purposeful sampling in terms of the school and the teachers being recruited on the basis on previous findings in the VOGUE project; specifically, selecting a large vocational school and classes with male-dominated study programs (Brevik, 2016, 2019a; Brevik & Hellekjær, 2018; Brevik & Holm, in press). By using purposeful sampling, VOGUE aimed to "purposefully inform an understanding of the research problem and central phenomenon in the study" (Creswell, 2007, p. 125). The research site and participants for my thesis were therefore determined by the VOGUE sampling strategy. Most students in the participating classes gave their written consent to participate in the VOGUE project, totalling 61 students.

3.4.2 Sampling of participants for my MA thesis

From the total number of participants in the VOGUE project, some played online games in their spare time, and five of the gamers consented to provide screen recordings from their game play at home. Based on the interviews and screen recordings, three of these gamers (n=3) were sampled for my thesis, as well as two of their co-players (n=2) (see Tables 3 and 4). The gamers' interest in the use of English in everyday speech as revealed in the interviews, as well as their actual use of English during gameplay, became paramount in the decision to select these participants. Pseudonyms have been used to anonymize the

participants in order to make sure that their identity and privacy is upheld in this MA thesis and in the VOGUE project.

3.4.3 Sampling criteria based on the interview data

To ensure that the participants were suitable based on the interview data, I used the following criteria during my initial analysis of their interviews (audio files and transcripts):

1) The participant mentions that he uses English or a mix of English and Norwegian in his spare time.
2) The participant states that he knows or prefers to use English during online gaming.
3) The participant uses code-switching (CS) and/or English loanwords during the interview.

Table 3. Participants (pseudonyms) and sampling based on interview data (*n*=2).

Edvard	1. Reported to speak mostly English in his spare time 2. Reported that he preferred to speak English during online gameplay 3. Used CS during the interview
Mats	1. Reported to use English and Norwegian in his spare time 2. Reported to use English and Norwegian during online gameplay 3. Spoke Norwegian during the interview

Based on the fulfilment of the above criteria (see Table 3), both participants were suitable for participation in this thesis.

3.4.4 Sampling criteria based on the online gaming data

I started out by viewing the screen-recorded gaming data material, to ensure that the selected participants were suitable also based on their online gaming. I used the following criteria for sampling during my initial analysis of their game play (screen recording and transcripts):

1) The participant used lexical borrowing with Norwegian suffix ending (word-internal morphological switches)
2) The participant used CS during sentences in English
3) The participant used single word switches during game play

Table 4. Participant (pseudonym) and sampling based on game play data (*n*=1).

Balder	1. Used lexical borrowing with Norwegian suffix ending (word-internal morphological switches) during game play 2. Used sentences in English CS. During game play 3. The participant used single word switches during game play.

The reasons for sampling the selected participants and data sets were due to the social factors affecting code choice. According to Holmes (2013, p. 9), both users and uses of language are important considerations when accounting for varieties (or codes) used in communication. "In any situation, linguistic choices generally indicate people's awareness of the influence of one or more of the following components" (p. 9):

1: The participants:

(a) Who is speaking?

(b) Who are they speaking to?

2: The setting or social context of the interaction: where are they speaking?

3: The topic: what is being talked about?

4: The function: Why are they speaking?

Balder played the online game *Apex Legends* with two friends. These friends are participating in the game as they play against different opponents (either computer generated or online opponents they do not communicate orally with). As mentioned above, these co-players also consented to participate in the VOGUE study (see Figure 3). *Apex Legends* is a Battle Royale game, i.e. an online multiplayer game played in teams and won with the last one standing. Teams who are playing online games such as *Apex Legends* make the individuals communicate and collaborate in order to fulfill the mission and to beat its opponents. Their linguistic use of both English (gaming language) as well as their mix of English and Norwegian while communicating with their team members offered an exceptional insight into their language use in the online video game.

3.4.5 Final sample: Three participants

Thus, the three participants (Edvard, Mats and Balder) and Balder's two co-players were selected based on their use of both English and Norwegian and/or CS during the interview or while playing online games. These participants often switched between Norwegian and English during game play, as this was the main interest for my thesis. Game play among teenagers who mainly used Norwegian while communicating was therefore not of interest for this thesis. In this study, it is valuable to be able to have a look into the use of English and Norwegian among these teenagers who attended a Norwegian upper secondary school and to identify not only if they used CS or not, but also if there was a difference between their CS in the formal setting of the interviews and in the more informal one during gaming. This method was used to observe and describe the linguistic behavior of the participants. To sum up, Table 5 gives an overview of the participants and the data sources they provided.

Table 5. The participants and the data sources they provided.

Pseudonym	**Interview** (at school)	Screen recording **(**gaming data at home)
Edvard	X	
Mats	X	
Balder		X

3.5 Data analysis

In this section, I will explain how the data have been analyzed to capture naturally occurring data as well as attitudes towards language use. This section is divided into two parts 1: analysis of interview findings (3.5.1) and 2: analysis of online gaming recordings (3.5.2). The theory from chapter 2 will be used in the presentation of the findings in chapter 4 and further discussed in the discussion chapter (5).

3.5.1 Analysis of interview findings

The participant interviews were first transcribed and then analyzed using the full transcriptions of the interviews with focus on the questions of interest regarding language use outside school as presented earlier in this chapter. Hence, the interview data has been analyzed using qualitative methods and the method of triangulation. However, the whole transcript had to be used in the study as participant Mats used English regularly throughout the interview. These English utterances have been categorized as either CS, lexical borrowing or transfer based on the theory in chapter 2 in addition to Mats' own self-report on his language use. The interview with Edvard is analyzed with the self-report of the language he states that he uses on his spare time with his siblings and friends while playing online video games.

The tool Inqscribe as presented earlier made the analysis of the language use of the interviews far easier. The tags are easily implemented into the transcriptions, for example 'CS' for utterances of code-switching, by choosing a key on the keyboard for the CS tag. Using this method of tagging and timestamping, it was easy to tag and timestamp utterances of CS. Similarly, I used time stamping for each of the languages used: English and Norwegian. The interviewer and participant tags are also timestamped and used with the same method as the language and CS tag stamps. This means that I used the following tags on the interview data:

- CS
- English
- Norwegian
- Interviewer
- Participant name

In Table 6 below, an overview of the main findings from the interviews are presented. This includes which participants share their attitudes towards their own language use both during the interview situation, at home and at school, if the participant CS or not, provide examples of language use outside school and if the participant uses lexical borrowings during the interview situation.

Table 6. Overview of data analysis of interview data of Mats and Edvard (pseudonyms).

Participant	Attitudes towards language use	Code-Switching	Examples of language use outside school	Lexical borrowings
Mats	X	X	X	X
Edvard	X		X	

The findings will further be presented as quotes from the interviews marked as examples. The matrix language of these interviews is Norwegian, while the English words either as CS or as loanwords or transfers will be marked in italics in the examples as well as being translated to English.

As RQ1 has to do with the participant's own perceptions of their own language use while playing online games, the interview data will primarily be analyzed with theory from *CS as language use (2.2),* and the gaming data will primarily be analyzed with theory from *CS as language structure (2.3).* However, as the interview situation also provide some natural-occurring language examples of English CS, loanwords and transfers some theory from CS as language structure will be used to analyze these instances as well (see Table 8). In addition, as the gaming data is based on conversations, theory from CA will be used to analyze how CS is structured by studying the turn-by-turn conversation patterns of the participants. See Table 7 below for an overview of theory used to analyze and discuss the findings:

Table 7. The theories used to analyze interview and online gaming findings on language use:

Participant	CS as language use	Example
Interviews Mats Edvard	• **The markedness model (Myers-Scotton, 1993a)** is used to describe Mats's and Edvard's language use and will be discussed in the discussion part of this thesis with examples from the findings. Mats reacts to switching during interview showing that he is aware of his marked use for his language use while Edvard expressed that he wanted to avoid switching thus using the unmarked variety. • **Gumperz (1982) we- and they-codes:** the We- and they-codes are relevant to the language use of both participants Mats and Edvard as they have a language they use while playing online games at home which they refer to as 'slang'. The they-codes are the language used in formal situations like an interview situation, and the we-codes is used at home with friends, siblings or other gamers. • **Gee (2017) affinity spaces.** The participants states that they are part of the affinity spaces of gamers and come up with several examples on where and how the gaming jargon is used in several sub-spaces.	*Mats: Menn, ehh.. Assa..Det er jo ikke noe sånne (..) Det ekke no (..) Vi* ***switcher*** *ikke, eh og nå gjorde jeg det vettu nå sa jeg det»* *Mats: "But, like.. There are not any, not any. We do not switch, eh and now I did it, now I said it."*
Online gaming recordings Balder	• **Conversational Analysis** (CA) (Auer 1984, 1990; Li Wei 1994, 1998).: Having a closer look at *how* CS or loanwords are constructed in the turn-by-turn conversation of the gamers CA will be used to explain this.	*Balder: Do you have heals, [name]?* *Friend2: Yes, I do.* *Balder: Okei, buddy. Har noen noe meds?* *Friend1: Ja, her.*

3.5.2 Analysis of online gaming recordings

The gaming data corpus consists of two transcripts of a total of two game plays. The game plays have been transcribed in their fullness and marked with tags like the interview data. The gaming recordings are used to answer RQ 2 and RQ 3. Further, the examples of English from these game plays have been plotted into an Excel spread sheet, sorted, and analyzed by distinguishing three categories of switching between English and Norwegian:

1. Single word CS.
2. Sentences in English.
3. Lexical borrowings with Norwegian suffixes.

These categories are based on the theory presented in chapter 2.3 *CS as language structure.* The cases of either Single word CS, sentences in English and Lexical borrowings with Norwegian suffixes are further presented in two bar charts, one for each game play. This way it makes it easier to compare the game plays and if there is a difference in the use of the language of the participants. For further classification of the theory used for these categories, See Table 8 below for the theory used in the findings and discussion of these findings:

Table 8. Theory of language structure to categorize the online video game recordings.

Participant	Theory CS as language structure
Balder + 2 external participants	• **Matrix-language theory** (Myers-Scotton, 1993b) By identifying the matrix and embedded language in conversation and sentence turns. Further distinguishing if the CS utterances intersentential (CS where codes are switched between sentences) or intrasentential (switches happens within the same sentence). • **Structural constraints to CS** (Muysken, 2011) To distinguish CS from loanwords, if the word is accompanied by an affix of the base language, this will indicate that the loan word is adapted morphologically into the base language. • **Lexical borrowing** (Poplack et al., 1988): Words are identified in the study as individual L2 words adapted into the L1 (usually phonologically and morphology), used in the pattern of the L1 and occupying the sentence slot which is dictated by the L1 syntax. • **Code-Switching:** The alternative use of one or more languages in conversation (Milroy & Gordon 2003; Myusken, 2011, Nguen, 2014). As opposed to lexical borrowing of words, code-switchers- "tend to switch completely between two linguistic systems – sounds, grammar and vocabulary" (Holmes, 2013, p. 44), and not only merge the odd word into an L1. • **Cultural forms and core forms** (Myers-Scotton, 1993b) the rule of three- all cultural forms appearing more than three times in a corpus will be established as 'established loans', and the other way around all core forms appearing less than three times in a corpus will be determined CS.

In the data analysis, both Balder and his friends' utterances were used to answer RQ2 and RQ3. Theory from the chapter of language use (2.2.) and language structure (2.3) as well as previous research will be used to analyze and discuss the findings The data will be presented both quantitatively (what types of CS) as well as showing the conversation threads of the utterances to be able to distinguish types of CS. The findings will be analyzed based on the theory presented in Chapter 2. Loanwords will be identified if they appear more

than three times in the corpus, and as CS if appearing less than 3 times. In addition, the conversations and conversation turns will be analyzed using the theory of language use (see Table 6).

3.6 Research credibility and research ethics

In this last part of the method's chapter, I will briefly explain the research credibility and research ethics from this study. Research ethics and credibility has to do with understanding and inquiring new knowledge about something where the ideal is to find the truth about the topic of interest. However, this is not always obtainable as we are only able to say something about a set amount of time or people, making the conclusions limited and temporary (NESH, 2018).

3.6.1 Research credibility

The credibility of this thesis has been to try to ensure a triangulation of the methods used. With using both interview data as well as online gaming recordings, both attitudes towards language use as well as examples of naturally occurring data form the online gaming recordings to exemplify how language is actually used by a different group. The most important methodological considerations made here are the strategies of triangulation and considerations of the observer's paradox. The observer's paradox is important as participants are aware of them being recorded, thus it may influence the naturalness of their spoken data may be influenced in some part. However, it does not necessarily limit the credibility of the findings of this study.

As CS is a linguistic phenomenon often occurring in situations with other people who use CS within the same domain, it is difficult to self-report on how CS is used. However, by triangulating the interviews and the screen recordings, I discovered if the self-reports from the gamers were accurate and complementary to the observations in the screen recordings. "Because language and human beings are both very complex phenomena, it is likely that no single method will give you all the data you would ideally collect about the topic of your research" (Sealey, 2010 p. 32). As different set of methods has their disadvantages, drawing on more than one type of data is beneficial for this thesis.

As the participants are aware of them being recorded, it may to some extent affect the naturalness of the spoken language. The question of the observer's paradox (Labov, 1972) is taken into consideration for anyone interested in collecting naturally occurring spoken data, as the participant can be influenced in a situation where he/she are being recorded. However, with the research team not being present during the game-play recordings, and with the participants placed in their 'natural habitat' (here, meaning home in their rooms playing online games with their friends solely without an external observer other than the recording program used on their computers) opened up for observation of naturally occurring spoken data without interference from an external source.

The Observer's paradox is often seen as a limitation as "the paradox is inescapable" (Gordon, 2012). Before every game play, Balder would have to ensure the participation of his friends to get acceptance of the game play being recorded. When going through the data material, Balder, on a multiple of occasions spoke directly to the research assistant in their recordings. The interactions directed towards the research assistant occurred on occasions where he had talked about an internal joke, or something that was very specific for the game they were playing, and hence apologized or came up with an explanation of what they meant. The VOGUE project was granted ethical approval by the NSD – Norwegian center for research data and all participants provided voluntary consent.

3.6.2 Research ethics

The ethics of this research has been decisive during the entire process. The participants of the study have been well-informed regarding their participation of the study, what the aim of the study has been, as well as being informed about the possibility of resigning from the study at any time (NESH,2018). All participants had to sign a form for participation where they got to choose what data sources they would like to participate in. In addition, during the data collection process and analysis means have been taken to protect and ensure the anonymity and privacy of the participants included in the study in accordance with the new GDPR laws.

The General Data Protection Regulation (GDPR) law (EU, 2018) is an EU-directive created to regulate information that can identify an individual person. The law is created to protect personal data of individuals and means had to be taken to follow these guidelines to avoid

identifying the participants. All personal data like names and cities or school names if mentioned during an interview or screen recording were erased from the recordings. In addition, pseudonyms were used for the participants of this study.

4. Findings

The matrix or base language used as language for both the gamers and the interview data is Norwegian, while the embedded language is English. By using the theoretical framework presented earlier in the theory chapter I have chosen to distinguish between loanwords (lexical borrowing) and CS as presented in the findings below. The data analysis chapter will be divided into two parts, consisting of one part dedicated to the participant interviews (4.1) and one with analysis of the online video game recordings (4.2).

4.1 Interviews

The interviews were semi-structured interviews with two participants of the VOGUE-project, namely, Mats and Edvard. Mats stated that he had been fluent in English since the age of 10 and that it came naturally for him due to his interest in gaming and numerous hours in front of the computer. Furthermore, Mats even stated that English is like a mother tongue to him. Edvard says that he uses English over half the time in his spare time in comparison with Norwegian and use single words in English while talking with his siblings and friends, specifically while gaming or talking about gaming.

The main findings from the interviews show that the participants avoid using English or become very aware of the use of English during the interview situation when asked questions regarding their use of other languages than Norwegian in their spare time.

4.1.1. Interview with Mats

Table 4.1. Mats' switches during the interview.

Word	CS	Loanword (Lexical borrowing)	Calquez (grammatical transfer)
Switcher		x	
Competitive	x		
Lithuania	x		
Tournamenter		x	
Kjønnsdivide		x	
Se opp			x

As can be seen in Table 4.1 above, in the interview with Mats two cases of CS has been identified as well as three instances of lexical borrowings (loanwords) with Norwegian suffixes and one instance of grammatical transfer from English to Norwegian. These types of switches are what Mats refers to as *slang* words used by teenagers today as well as his online network. In addition, Mats provide useful insight into his own language use in his spare time, both how he uses English and Norwegian together with friends as well as his own views of his own English competence and use.

During the interview Mats becomes aware of him switching, however he adds the Norwegian suffix *er* to the word *switch**er*** when CS in the interview (See Example 4.1.1). This switch is something that he describes as *slang* and that he is not aware of himself switching when talking with his friends. As the Norwegian suffix ending -er is added to the English root word, this cannot be identified as CS, instead it is tagged as a lexical borrowing according to theory from Chapter 2.3. Mats describes this language use as something that comes naturally. A formal interview like Example 4.1.1. is an example where the participant in a formal interview becomes aware of his language use as well as the use of English in otherwise Norwegian speech. This occurred as Mats had to think about the questions directed towards his language, and at the same time seemed to become aware of his own language use.

Example 4.1.1:

> *Mats: Men, ehh.. assa..Det er jo ikke noe sånne [...] Det er ikke noe [...] Vi* ***switcher*** *ikke, eh og nå gjorde jeg det vet du, nå sa jeg det.*
>
> *Mats: But, like… There is no […] There is no […] We do not switch, eh and now I did it, you know, now I said it.*

Example 4.1.1. provides some insight into the language use of Mats and that he tries to state that he does not switch languages while talking with his friends. However, he does not use the Norwegian word here (i.e. *bytter),* instead he adds the Norwegian suffix ending *-er* (marked in bold) to his English root word to make the English verb 'switch' fit into the Norwegian sentence. Mats states that the language he speaks with his family is Norwegian. However, the language Mats reports that he speaks with friends in something he describes as *slang* and the use of several English words. The sentence above in example 4.1.1 with the word *switcher* is an example he himself states that he would call slang and a word he would use among friends. Later during the interview (example 4.1.8), when asked about his language use in the classroom, he uses the Norwegian word *bytter* instead of *switching*.

The reason for Mats's interest and use of English during the interview may be linked to his use of English speaking with L1 Norwegian speakers and other L2 or L1 users of English. Mats states that he has several friends outside Norway from countries like the USA, Italy, and Germany. With these friends he only speaks English. When asked about what situations he would use the *slang* like in example 4.1.1, Mats expresses that it is something that comes naturally. The interviewer further asks if there are certain topics where words would be switched with English *slang* words Mats replies that normal words can be switched sometimes and that it feels more natural to speak English as he and his friends are used to speaking English online.

The interview is carried out in Norwegian, and single word English CS appear in two instances when Mats is asked about his language use with his friends when they meet physically or online. Two cases of CS have been identified in the interview with Mats (example 4.1.2 and 4.1.3), and in both cases the English word is placed at the end of the sentence i.e. intrasentential CS (Myers-Scotton, 1993b, 2001).

Example 4.1.2 CS:

Mats: jeg vet ikke, folk er jo ***competitive.***

Mats: *I don't know, people are competitive.*

Example 4.1.3 CS:

Mats: I det jeg har eh.. opplevd. eh.. jeg har ikke hatt så mange diverse klasser [...] Eh... [...] hatt noen klasser der folk har kommet fra [CS] ***Lithuania****, nei det blir feil.*

Mats: In what I have, uh, experienced, uh, I haven't had so many classes. […] Uh, […] had some classes where people have come from Lithuania, no that's wrong.

In example 4.1.2 Mats is asked if he is a serious gamer, and answers that people are probably more serious than him. The follow-up question deals with what he thinks of as a serious gamer where he answers that people are competitive. This use of the English word *competitive* does not spark a reaction in Mats, instead he carries on with the interview, unlike with his reaction to his response in example 4.1.1. Only seconds later Mats use a lexical borrowing as can be seen in example 4.1.4.

The second example of CS during the interview can be seen in Example 4.1.3. In this example Mats reacted to himself saying the English name of the country Lithuania instead of the Norwegian translation. This makes it interesting to consider why he does not react to the utterances in example 4.1.2 and 4.1.4. These examples of Mats' language use may, however, be linked to the *slang* or gaming language he states that he is so used to speaking in his spare time and that these are words he regularly uses while playing online games. The participant further described why he used the word *Lithuania* (in Norwegian *Litauen).* According to Mats, this was due to him never using the Norwegian word in speech. When asked if he thinks this has something to do with the frequency of words in English, he answered that it does, especially since he spends around six to seven hours a day speaking English.

The CS in example 4.1.2 above is followed by a lexical borrowing in Example 4.1.4. This is not something he corrects either and the examples appear only seconds after 4.1.2. Similarly

with example 4.1.1, the example from 4.1.4 is marked as lexical borrowing as the English root word is added with the Norwegian suffix ending -er to follow the syntax of the matrix language Norwegian. Like with the previous examples, this word also appears at the end of the sentence and not in the beginning or the middle of the sentence. Mats is also taking a short break saying 'mm..' before using the lexical borrowing *tournamenter*.

Example 4.1.4 lexical borrowing:
Mats: Eh folk spiller for å være best, og,.. mm.. deltar i ***tournamenter***

Mats: Uh, people play to be the best, and …mm ... participate in tournaments.

Example 4.1.5 lexical borrowing:

> *Mats: Men jeg tror ikke at hvis det hadde vært halvveis gutt- halvveis jenteklasse så hadde det vært noe annerledes. Det hadde jo vært akkurat det samme. Men det er jo ikke noe* ***kjønnsdivide*** *på ... Nei, nå sa jeg det.*
>
> *Mats: But I don't think that it would have been any different if the class had been half males – and half girls. It had been exactly the same. But there is no gendered… No, now I said it.*

In example 4.1.5 of lexical borrowing, Mats is asked if how he talks would have been different if the class he was part of was not male dominated. Instead of using the Norwegian word *kjønnsforskjell* he uses a mix of English and Norwegian into one word; *kjønnsdivide.* In the following answer he corrects himself and instead uses *kjønnsdifferanse (gender difference)* which indicates an awareness of the Norwegian word, although he initially borrowed the English word *divide* instead of using the Norwegian word *forskjell.*

A reason for these gaps in Norwegian words are further explained by Mats. When asked about which language Mats knows best of the two languages Norwegian and English, he stated to know English better. According to Mats this was due to him playing video games for around 2 hours each day where he spoke English. He even stated that he had to translate English words into Norwegian (see example 4.1.6).

Example 4.1.6:

> *Interviewer: Omvendt, ja. Så norske ord må du søke opp noen ganger?*
>
> *Mats: Ja... det er jo bare fordi at det er sånn, eh mange ord som jeg bruker på engelsk hele tiden som er litt mer avanserte som jeg bare ikke trenger på norsk. Jeg har liksom ikke støttet på situasjoner der jeg trenger dem, og da er det liksom første gang eller andre gang og gå inn og…*
>
> *Interviewer: Right, so the other way around. You sometimes have to look up Norwegian words?*
>
> *Mats: Yes… it is just because there are many words that I use in English all the time that are a bit more advanced, that I just do not need in Norwegian. Like, I have not encountered situations where I need them, and then it is like the first or second time to go in and…*

Mats states that he sometimes has to look up Norwegian words as he does not encounter or use the same words in Norwegian that he does for the English counterparts. This is a way of getting insight into Mats's language use and may explain why he apologizes for the lexical borrowings he has used during the interview. Later on in the interview he even states that he only reads English news and looks up information in English in his spare time.

It becomes apparent that the switch does not only occur when Mats is describing himself or how he talks with his friends in his spare time. Mats states that he knows English better than Norwegian, and in the last part of the interview he confirms what he said in the beginning with him having to look up words in Norwegian. Example 4.1.7 serves as an example of a transfer from English to Norwegian, or what Sunde and Kristoffersen (2018) refers to as calques. The loan translation appears when Mats is asked about what skills he master the best in English either reading, writing, speaking or listening, providing the following response:

Example 4.1.7:

> *Mats: Så ... Er ganske god på det. Ehh ... skriving er liksom, det det er vanskelig å si om du er god i det eller ikke, når du bare kan det. Det er ... Jeg, jeg kan ikke, altså jeg kan skrive en stil uten noe problem, kommer aldri til å måtte **se opp** noe grammatikk-regler [...]*
>
> *Mats: So.. I am pretty proficient in that. Uh ... writing is like, it is difficult to say if you are good at it or not, or if you just know it. It is ... I, I cannot I mean I can write an essay without any problem, will never have to look up any grammatical rules [...]*

The transfer from this lexical borrowing is in fact the English clause 'look up' which Mats has directly translated to Norwegian *se opp*. In Norwegian this clause will not function in what he describes as to look up a word, instead *slå opp* would be a more correct use in this context.

Mats is very interested in talking about his use of slang and even states that if you do not know the slang (i.e. use of English words in Norwegian conversations) you are less likely to fit in and be part of the teenage culture, like in Example 4.1.8 below:

Example 4.1.8:

> *Interviewer: Bytter du.. i setninger for eksempel?*
>
> *Mats: Nei ... Altså, med uttak av slang, selvfølgelig. Fordi der. bare. sklir det inn. Det er sånn, jeg vet ikke om det telles som å bytte mellom, du bytter jo mellom på det ene ordet, hvis du sier at du **switcher**, eller hvis du sier at noen har **progress**. I stedet for å si framgang. Bare fordi det.. [...] Ehm... Brukt ordet- progress mye mer når jeg snakker til venner på nett, for eksempel.*
>
> *Interviewer: Do you switch within sentences for example?*

Mats: No…, I well, with the exception of slang, of course. Because there. it just slides in. It is like, I do not know if it counts as switching, you switch between one of the words, if you say that you switch, or if you say that someone has progress. Instead of saying fremgang. Just because it…[…] Uh... Used the word progress a lot more when I talk with friends online, for example.

In Example 4.1.8. above, Mats juxtaposes the use of the lexical borrowing he himself used in the same interview (i.e. switcher) and an English word like **progress,** indicating that they are equal examples of switching used in sentences. Furthermore, he states that since he uses the English word 'progress' more in his spare time, it would be more natural for him than to use the Norwegian word. When asked if this is something he notices himself, he states that he does not always notice that he switches languages in the middle of a sentence, however stating that he has not received any feedback on this language use and that he only speaks Norwegian with his family.

When asked about how much he uses English outside school on a scale between 1 and 10, Mats replies 10. The follow-up question asked why he would rate this use as 10, and Mats states that if you do not speak English, you are 'socially dead' as everything is going on in English at least for teenagers today (Example 4.1.9). Likewise, when asked about if English is important in connection to his identity, Mats states that English is important due to the slang he uses. Additionally, Mats adds that it would be difficult to stop speaking English.

Example 4.1.9

Mats: Det er fordi du blir jo litt sånn sosial død hvis du ikke kan snakke engelsk.

Interviewer: Okay..

Mats: Nei, men, sånn for ungdommen i dag, så er eh [...] alt foregår på engelsk

Interviewer: Ja

Mats: Så.. du må nesten bare kunne det

Interviewer: Så for å kunne delta i det sosiale livet i dag, så er det viktig å kunne engelsk?

Mats: Ja, altså hadde jo ikke hatt ni av ti venner jeg har i dag hvis jeg ikke hadde kunnet snakke engelsk fordi da hadde jeg aldri kunne snakka med dem. Så.. det er definitivt veldig veldig veldig høyt

Interviewer: Mm.. Føler du at engelsk-kunnskapen binder vennegjengen sammen?
Mats: [...] engelsk-kunnskapen altså, [...] hva mener du med det?

Interviewer: Eller bruken av engelsk, da?

Mats: Bare, bare å snakke engelsk. Altså, selvfølgelig. Fordi, når du har folk som kommer fra andre land, du kan jo ikke snakke norsk til en tysk person, du må nesten snakke engelsk

English:

Mats: It is because you would be a bit like socially dead if you cannot speak English.

Interviewer: Okay..

Mats: No, but. Like for teenagers today, then eh […]everything happens in English.

Interviewer: yes.

Mats: So.. you just have to know it.

Interviewer: So, it is important to know English to participate in today's social life?

Mats: Yes, well [I] would not have had nine out of ten of my friends today, if I could not speak English because then I would not be able to talk to them. So.. It is definitely very very high.
Interviewer: Mm.. Do you feel like knowing English ties your group of friends together?

Mats: […] Knowing English like, […] what do you mean by that?

Interviewer: Or the use of English?

Mats: Just, just speaking English. I mean of course. Because when people come from other countries, you cannot speak Norwegian to a German person, you have to speak English.

Mats's response in example 4.1.9 gives insight into his language use and his use of English. It is clear from this example that Mats have several friends with whom he communicates in English in his spare time. English seems to be very important for Mats's social life as he even states that you would be socially dead if you cannot speak English as everything takes place in English.

Later in the interview Mats is asked if English is important for his identity, he responds that the slang is important as he cannot just stop speaking English. In addition, he states that if you are not interested in using computers, or social media you will not be proficient in using English even stating that you can stick to using Norwegian as everyone you meet in Norway speak Norwegian implying that you do not need English at all. The previous example (4.1.9) and this response from Mats gives signals in stating that English is important for (1) using computers and (2) having a social life outside school. Mats also sates that the use of English 'slides in' to his language use.

When asked if other languages than Norwegian and English are spoken in his class, Mats states that there were some students in his class from Lithuania. Further, he adds that if they did switch language to their mother tongue it would be due to their lack of Norwegian vocabulary. However, when it comes to English, Mats states that it is natural to mix these two languages as English is a universal language and everyone would understand what you are saying.

Example 4.1.10:

> Mats: *Og det jeg tror det er, jeg tror det bare nesten har med hvor godt du kan norsk i forhold til engelsken din. Fordi engelsk er universalspråket, ikke sant, så da kan jo nesten alle det [...] Så da er eh... veldig bare [...] Eh... naturlig å mikse inn engelske ord fordi alle skjønner hva du mener.*
>
> *Mats: And I think it is, I think it only has to do with how well you know Norwegian in comparison with English. Because, English is the universal language, right, so then almost everyone knows it […] So then it is. Uh… it is just very […] uh natural to mix with English words as everyone understands what you mean.*

To sum up the interview with Mats, it is obvious that Mats is interested and very occupied with using English during his spare time, both written and orally. He even goes as far as to justify the use of English in Norwegian sentences, which is also something he does himself during the interview. I have identified two cases of CS in the interview with Mats, namely the noun of the country *Lithuania* and the adjective *competitive*. The switches provided by Mats either as CS or loanwords appeared everywhere in the conversation, both when he talked about activities known to him in his spare time, like gaming, and his use of English at school.

4.1.2 Interview with Edvard

Edvard states that he is slightly more proficient in English than in Norwegian in what he describes as a 60% use of English 40% use of Norwegian. Furthermore, he states that gaming has a big impact on his language use, including the language spoken with his siblings. In contrast to the interview with Mats, Edvard does not CS or use loanwords in sentences. Instead, he provides examples of what he would say in certain situations when asked about his language use, see example 4.1.11 below.

Example 4.1.11:

> *Edvard: Eh…. Ja, søstra mi spilte et spill som heter Red Dead Redemption 2 og da det er liksom bag som kalles* ***saddle*** *så vi… akkurat med gang når vi prata her så kom jeg ikke på det ordet så det ble jo fort slik at jeg sa 'saddle' med en gang. Det er jo mye enklere å si det ordet der som vi vet sånn med en gang i stedet for å bare begynne å tenke på hva er det ordet 'bag', men ja. Så, 'saddle' for eksempel. Jeg bruker egentlig ikke ordet 'saddle' så mye eller når jeg tenker meg om. Men, ja.*
>
> *Edvard: Uhh.. Yes, my sister played a game called Red Dead Redemption 2 and then there is this bag called saddle so we… Right now when we talked about it, I did not remember the word so instead I said saddle right away. It is a lot easier to say the word I know right away instead of thinking of the word 'bag', but yes. So saddle for example I do not really use the word saddle that much when I think about it. So yeah.*

Edvard uses this kind of language when talking with his siblings and friends. When asked about examples of his language use during gaming, Edvard replies that instead of having to come up with the Norwegian word during gaming they use the English words instead like with the example of saddle above. Instead of translating the word to the Norwegian word *sekk* he uses the word *bag*. With his friends, Edvard states that he uses a mix of Norwegian and English. However, emphasizing that the language they use together are not purely English, they only use certain English words in conversation, see example 4.1.12.

Example 4.1.12:

> *Edvard: Ja, gaming. For eksempel når vi spiller og sånt da er det sånne ord, sånn som… [vi] spilte et spill i går da for eksempel med en kompis, da å legge en sånn markør på et sted og da kan du gjøre noe som heter* ***pinge*** *da. Du setter som markør da inn i spillet, så da sier vi ikke skal sette sånn markør der da sier jeg pinge det stedet der så vi skal gå dit for eksempel, da.*
>
> *Interviewer: Er det mest enkeltord eller er det setninger også?*
>
> *Edvard: Eh... mer enkeltord, vi pleier ikke akkurat å si sånn hele setninger sånn på engelsk.som regel.*

Edvard: Yes, gaming. For example, when we are playing and such there are these words, like…[we] played a game yesterday for example with a friend and when pointing a marker at a place we can do something called pinge. When you place a marker in the game so we do not say that we are going to place a marker there. Instead we say pinge on that place when we are going there, for example.

Interviewer: Is it mostly single words, or does it include sentences?

Edard: Uhh, mostly single words, we do not actually say whole sentences in English, usually.

The gaming word 'pinge' is a word also recognized from the screen recordings in the next data set below (section 4.2). It means to point to something on the map and is a word Edvard also states that he uses instead of saying that he is going to mark the map in the game. This is a word commonly used in English and refers to making a sound usually connected to computer sounds like pinging an email or checking for connection, with a similar meaning in Norwegian. However, according to Edvard, the word *ping* has a slightly different meaning in the gaming environment he is part of. It is therefore difficult to point to this as being an example of CS or a loanword the way Edvard uses it, it is connected to the gaming language.

Similar to Mats's interview, Edvard is also aware of his language mix between English and Norwegian. However, in contrast to Mats' interview, Edvard has negative associations as to the use of a mix of English and Norwegian in formal situations like in the interview (see Example 4.1.13):

Example 4.1.13:

Interviewer: Er koblingen av engelskbruk både i og utenfor skolen viktig eller positivt synes du?

Edvard: Hm… har ikke akkurat tenkt på det sånn, så litt usikker. Det er sånn om det er positivt eller ikke, men kan jo hende det er litt negativt noen ganger, fordi hvis jeg er begynner å snakke med sånn engelsk-norsk at det blir litt sittende inn i hodet så er ikke det akkurat helt bra noen ganger når du skal for eksempel på sikkert møter og

sånt og intervjuer -sånn jobbintervju- plutselig begynne å si noen engelske ord og sånt når du egentlig burde si det på norsk, da kanskje. Men ja.

Interviewer: Is the connection of English use both in and outside school important or positive, do you think?

Edvard: Well, I have not thought about it that way, so a bit unsure. It is like, if it is positive or not, but. It might be that it is a bit negative sometimes because if I start talking in English-Norwegian and it gets stuck in my mind, then it is not exactly a good thing, for example when you are going to interviews, meetings and such and suddenly using English words when you are supposed to speak Norwegian, so yeah.

The follow-up question about if Edvard has to concentrate sometimes during formal situations, he replies that he did not have to concentrate during the interview. The example above (4.1.13) serves as a contrast to Mats who likes to speak English and is proud of using English in Norwegian sentences, which he showed in the interview situation, although he also reacted to some of his own language use when he switched during the interview.

When it comes to identity, Edvard says that he spends a lot of time watching YouTube videos and learning new words in English which he usually understands through the context. What shapes his English use outside school is both gaming and watching English tv-shows and YouTube videos.

Example 4.1.14:

Interviewer: Ehm. Vil du si at engelsk er viktig for deg som person, for din identitet?

Edvard: hm.. godt spørsmål. Jeg vet ikke jeg. Hm… kanskje for jeg bruker mye engelsk når jeg er med andre og det sier jo litt om hvordan jeg er og sånt vil jeg tenke meg da. Siden jeg spiller så mye og ser på mye engelske greier og sånn. Så det folk forstår sikkert at jeg driver med engelsk ofte da hvis de prater med meg og jeg begynner å prate litt sånn engelsk-norsk da så.

Interviewer: Would you say that English is important for you as a person, for your identity?
Edvard: Good question. I do not know. Maybe because I use English a lot when I am with others and it says a bit about who I am. Since I play a lot and watch a lot of English stuff. So, people might understand that I am using English a lot if they talk with me and I then start speaking English-Norwegian.

Even if the use of English or switching between English and Norwegian does not come naturally during the interview with Edvard, he states that it is something that he does in his spare time and that gaming, and the use of English is important for his identity. The reason for Edvard not switching during the interview may possibly have to do with his response in Example 4.1.13 where he states that it can be negative to switch during an interview situation. Since the interview was held in Norwegian with someone unknown to him, it might have been difficult for him to use English due to this being a formal setting. However, Edvard's' examples of language use, as well as these attitudes towards his own language use are equally interesting for this study as it says something about what he believes to be acceptable language use in certain settings.

In contrast to Mats, Edvard considers himself as a serious gamer as he plays to win. This is relatable to Mats's response as being competitive while gaming is important if you want to be a serios gamer, although Mats did not see himself as one. The difference in language use among these two gamers can be related to if they imagine themselves as a serious gamer or not.
Four major differences are discovered after analyzing the interviews with Mats and Edvard:

1: During the interview Mats CS twice in addition to using loanwords from English on two instances without interrupting the conversation. The switches appear at the end of the sentences.
2: Edvard only provide examples of English when asked about what kind of vocabulary he would use during gaming and immediately remembers the Norwegian word.
3: Mats states that English is like a mother tongue to him and that he uses it regularly while talking with foreign friends online.
4: Edvard mostly use a mix of Norwegian and English while talking with his sibling and friends online.

4.2. Online gaming recordings

Balder plays online game together with two friends. The screen- and audio recordings are made on Balder's own computer at home. The findings from the gaming recordings are divided into single word CS, sentences in English and lexical borrowings with Norwegian suffixes (loanwords) based on theory from chapter 2.3 on language structure. The full English sentences are a mix of both short sentences and utterances, while the longer sentences include English words, predominantly words that deal with gaming and gaming language. In the online gaming recordings examples of both intersentential and intrasentential (Myers-Scotton, 1993 b, 2001) switches appear.

Types of CS/loanwords identified:

(1) Sentences
(2) Words in sentences (Intersentential CS)
(3) Lexical borrowing (Norwegian suffix endings to English root words)

This section is divided in two parts, the first part deal with the language structure of the participants with focus on the sorting of the CS and/or loanwords instances as identified in game play 1 and in game play 2. The two separate game plays show different results in terms of number of instances of each category and the vocabulary used. The second part of this section deals with CA, examples from the game plays will be used to see how CA can be used to analyze how the use of English and Norwegian during the conversation with the teenagers affect the conversation during their game play.

4.2.1 Types of switches game play 1

The recordings from Game play 1 shows a majority of the switches being that of single word switches, making up around 50% of the total amount of switches during the game play. Lexical borrowings and single word switches make up around 25% of the switches each, with a slightly majority of full sentence switches (26%). The types of switches and the explanation for them is summarized in Chart 1 below.

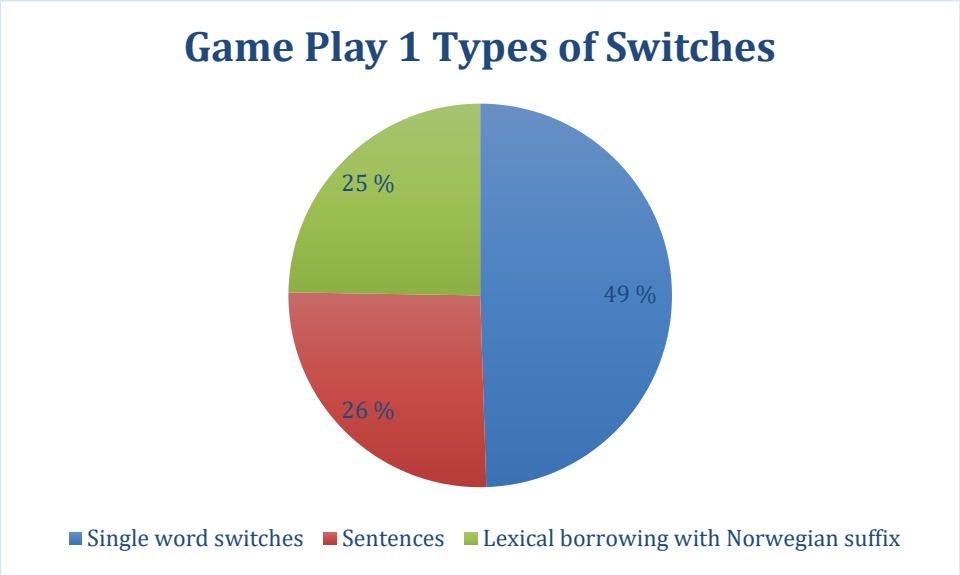

Chart 1: Game play 1 sorted with types of switches.

As can be seen in Chart 1 above, the most common type of switch is that of single word switches. The single word switches include words related both to what is happening in the game, like referring to things to look out for, commenting on participants or items in the game, use of gaming language, as well as commenting on things outside the game itself like the loss of internet connection. The majority of the single word-switches are intrasentential switches which happens within the same sentence like in Example 4.2.1. These switches follow the grammar of the embedded language (English) and not the matrix language (Norwegian) of the sentence, and is thus identified as CS.

Example 4.2.1:

*Balder: Ja den er **broken**, hehe*

Balder: Yes, it is broken, hehe

The second largest proportion of switches consist whole sentences in English. The sentences are short, however there are examples of longer sentences and conversations in English as well (see section 4.3). The sentences are often based on reactions as to what is happening inside the game. The majority of these switches are intersentential switches (i.e. switches happening between sentences). See example 4.2.2 below (example 4.2.2):

Example 4.2.2:

Balder: Do you have heals, [name]?
Friend2: Yes, I do.
Balder: Okei, buddy. Har noen noe meds?
Friend1: Ja, her.

The third and final category consist of lexical borrowings. Since the lexical borrowings used by the gamers include the Norwegian suffix endings, as discussed in the theory section on language use (Muysken, 2011; Poplack, 1988), a word that is accompanied by an affix of the base (matrix) language, will indicate that the loanword is adapted morphologically into the base language and they are categorized as lexical borrowings (Poplack,1988) like with example 4.2.3 below where the Norwegian suffix -er is added to the English root word to fit the syntax of the matrix language of the sentence.

Example 4.2.3:

*Speaker: Sekundet jeg **loader** inn, så bare jaa, server connection mistake.*

The second I am loading in, it just well, server connection mistake

In table 4.2.1 below, an overview of the categories with types of switches with explanations and typical examples are summarized.

Table 4.2.1 Overview of types of switches with explanations and examples.

Types of switches	Explanation	Example
Single word switches	Words related to what is happening in the game or outside the game. Majority of intrasentential switches which happens within the same sentence following the grammar of the embedded language (English) and not the matrix language (Norwegian) of the sentence.	Balder: Ja den er **broken**, hehe *Yes, it is broken, hehe*
Full sentences in English	Sentences commenting on what is happening inside the game. Longer conversations in English or short answers.	*Balder: Do you have heals, [name]?* *Friend2: Yes, I do.* *Balder: Okei, buddy. Har noen noe meds?* *Friend1: Ja, her.*
Lexical borrowings	A word that is accompanied by an affix of the base (matrix) language, will indicate that the loanword is adapted morphologically into the base language and they are categorized as lexical borrowings (Poplack,1988). Mostly English roots with Norwegian suffixes added to the end of the word. The word classes are predominantly verbs and nouns.	*Speaker: Sekundet jeg* ***loader*** *inn, så bare jaa, server connection mistake.* *The second I am loading in, it just yes, server connection mistake*

Comparing the results to that of Sunde (2016), the use of the Norwegian suffix ending seems to be the case for these switches as well. However, one main difference is in the use of full English sentences. In Sunde's (2016) study, she moved away from using full English sentences in her data set as there were too few of them. In this study, as can be seen from chart 1 above, full sentences in English make up 25% of the total number of switches for game play 1 (Chart 1) and 29% for game play 2 (Chart 2).

The reason for the majority in the use of single word switches making up around 25% of the total number of switches may be due to many of them being established loans in the gaming environment. By using 'the rule of three' theory of cultural forms (Myers-Scotton, 1993b) as presented earlier it is made clear that several of the single word switches are established loans used by these teenagers. The words that are used more than three times during one conversation (game play) is therefore classified as cultural forms i.e. loanwords from each game play. See what words are determined established loans for game play 1 in Table 4.2.2 below as well as the number of times they appear in the corpus.

Table 4.2.2. Words identified as loanwords in game play 1 (appearing 3 times or more in the corpus)

Word	Number of times appearing
Pingen/pinger/ping	8
Shieldet/shielda/shields/shielde/shield	10
Lagger/lag	7
Pusher/pusha/push	12
Game	6
Ait	9
Heal	3
Meds	4

Some words from this category are connected to the game itself and used to make communication easier in the game. Like the use of 'pinger' in the gaming environment with a different meaning elsewhere like explained earlier. In game play #1 the word ping is used 8 times, and therefore is categorized as an established loan in this environment as it appears over three times in the same game play. The same word lag or lexical borrowing lagger can be identified in this data set, which is similar to Boes' and Vinh-Hung's (2017) findings from the French chat forums, indicating this to be a word used by gamers in several countries and users of several games.

4.2.2 Types of switches game play 2

The main difference between game play 1 and 2 is that in game play 2 we get more examples of full sentences or partly full sentences in English. This difference makes up 29% of the total number of switches in game play 2 in contrast to 26% in game play 1. However, the main difference between game play 1 and 2 is that only 10% of all switches are lexical borrowings in game play 2 in contrast to 25% in game play 1. The use of game specific language is also limited in this second recording, for example the word ping which appeared 8 times in game play 1 did not appear at all in game play 2. Instead, more regular English words used in everyday speech are used and the participants even respond to each other's sentences in English.

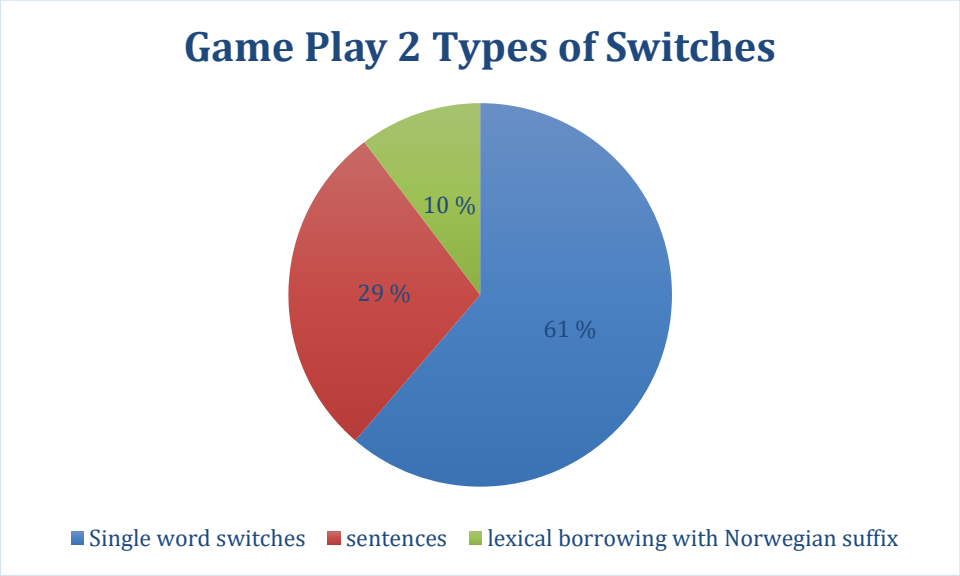

Chart 2: Game play 2 sorted with types of switches.

As can be seen from Chart 2 above, the use of single word switches makes up 61% of the total number of switches, while full sentences make up 29% and lexical borrowing make up 10% of the total number of switches. In addition, in game play two, many of the instances of single word switches appear at the end of the sentences as to emphasize something: these include adverbs like *basically* and the noun *never mind* like in example 4.2.1 below:

Example 4.2.1:

Speaker: Er det morsomt... hva er det du- ja, never mind

Speaker: Is it funny… What are you.. well, never mind

The words identified as cultural forms (Myers-Scotton, 1993b) is summarized in table 4.2.3 below.

Table 4.2.3. Words identified as loanwords in game play 2 (appearing 3 times or more in the corpus)

Word	Number of times appearing
Basically	3
Shield	6
Lagger/lag	5
Record/recorder	3
Shield/shielda	6
Tryhard	3
Game/gamet	7
Report/reporting/reported	3
Damage	4
Ait	9

As can be seen from Table 4.2.3 above, the words identified in game play 2 contain less gaming-specific words and less instances of the same words than those identified in game play 1. Several of the examples, like with the adverb *basically* are appearing more than once as the participants responds using the same word as their conversational partner like in Example 4.2.1 above.

4.3 Conversational Analysis:

Even with the mixing of English and Norwegian in conversation the participants seem to understand each other very well and it is a way of speaking that they are all using. This can be explained by the casual speech or vernacular language of the group of gamers, they have a lexical understanding of what is going on in not only the game, but also draws in examples from memes or social media language as well as everyday topics that they are all familiarized with from outside the game Thus, the interlocutors have their procedures of arriving at a local meaning of language alternation (Li Wei, 1998). CA it will be used here to analyze some examples from the game drawing on theory from chapter 2.2.3.

The main findings interesting for the conversational analysis of these conversations is the use of English and Norwegian and how the teammates respond to these utterances. If a speaker uses English to ask a question, the response is likely to be in English, likewise, if a question is asked in Norwegian, the response is likely to be in Norwegian. Like with the theory of Li Wei (1998), English is sometimes used as a conversational tool to gain attention from the other people in the conversation. Below are some examples of the use of these conversational tools in conversation. Again, the section is divided into game play 1 and game play 2.

4.3.1. Game play 1 conversational analysis:

Example 4.3.1

Balder: Do you have heals, [name]?
Friend2: Yes, I do.
Balder: Okei, buddy. Har noen noe meds?
Friend1: Ja, her.

Balder: Do you have any heals, [name]?
Friend 2: Yes, I do.
Balder: Okay buddy. Do you have any meds?
Friend 1: Yes, here.

The example above (4.3.1) is such an example where the language that is used in asking a question is the language used to reply to that question. When the question is asked in English the reply is also given in that language. While when shortly after another question is asked (partly) in Norwegian the response is given in Norwegian. This way, the conversation in Example 4.3.1 above can be termed an example of CS as there is no gradual transition, instead there is a separateness between the two languages and they are used in conversation between the three friends as a conversational tool.

Linking this example to Auer's (1984) sequential approach, we can see that the conversation creates new structures implying that every utterance and every turn changes or restores others. The variety used in this conversation by Balder influences the response he receives from Friend2 and Friend1. Thus, this turn-by-turn analysis of the conversation means that the languages used in Example 4.3.1 above is an example of CS according to the sequential approach (Auer, 1984).

Example 4.3.2:

Friend2: Ja det her ble virkelig, en eh, hehe. Det gikk ikke så bra.
Balder: Ait, (venn), play better please, neida. hehe Hehe
Friend1: Excuse me!
Balder: You died first! HEhe
Friend1: I had the most leverage, I think, I don't know.
Balder: He's spitting straight bullshit. Hehe
Balder: Can't, (mumle) love him, he spits.
Friend2: (nyser)
Balder: Hehe, det var ganske bra timing.
Friend2: At jeg nøs?

Friend2: Yes, this was really, a uh, hehe. It did not go well.
Balder: Ait, (friend), play better please, no, hehe Hehe
Friend1: Excuse me!
Balder: You died first! Hehe
Friend1: I had the most leverage, I think, I don't know.
Balder: He's spitting straight bullshit. Hehe
Balder: Can't, (mumble) love him, he spits.
Friend2: (sneezes)
Balder: Hehe, that was pretty good timing.
Friend2: That I sneezed?

In example 4.3.2 above, the participants are talking about the game. Similar to the previous example we can analyze Example 4.3.2 using the sequential approach (Auer, 1984). The first part is spoken in English where Balder and Friend2 complains about the game. When Balder start using English in the second line, the conversation switches to English and does not move back to Norwegian again until Friend2 interrupts the conversation by sneezing. Thus, an external factor influences the switch of language.

4.3.2. Game play 2 conversational analysis

The language strategies Balder used during this conversation serves as an example of how to get attention from the other players by switching languages between both Norwegian and English as seen in Example 4.3.3 below:

Example 4.3.3:

Friend2: Det er lilla overalt, jo.

Balder: Ja men det er ikke no skullpiercer så vidt jeg vet.

Friend2: Bruh.

Balder: Det der er bullshit, fordi jeg hørte lyden av at den kom inn i min minimap. Jeg ringer politiet.

Friend2: Jeg hadde faktisk tenkt til å gi den, men...

Balder: I mean, I have a bupper if you want it. Hm, hm?

Friend2: Eh, no.

Balder: Ah. You, åh du har jo tjuefem prosent med passiven din da.

Friend2: I will take it for myself.

Balder: Så egentlig er det jo complete bullshit at du skal ha den. Litt...

Friend2: Hæ healer lifeline fortere by default?

Balder: Ja, tjuefem prosent fortere. On default.

Friend2: It is purple everywhere.

Balder: Yes, but there are no skullpiercer as far as I know.

Friend2: Bruh.

Balder: That is bullshit, because I heard the sound of it coming into my minimap. I am calling the police.

Friend2: I actually had planned on giving it, but…

Balder: I mean, I have a bupper If you want it. Hm, hm?

Friend2: Eh, no.

Balder: Ah. You, Oh, you have twenty five percentage with your passive.

Friend2: I will take it for myself.

Balder: So actually it is complete bullshit that you are keeping it. A bit..

Friend2: What does the lifeline heal faster by default?

Balder: Yes, twenty five percent faster. On default.

In this part, Balder and the other gamers talk about what is going on in the game and the possibility of switching items. In the sixth line, Friend2 talks about giving something to Balder, Balder replies in English, asking a question and gets a response in English as well. Similar to the CA of Li Wei's (1998) explanation in that the alternation of languages signals to the co-participants of the conversation how they wish to be interpreted on that occasion and not having anything to do with values attached to the languages themselves in conversation like the markedness model (Myers-Scotton, 1993a) implies.

Several similar examples of how Balder and his friends use English and Nowegian together in conversation are represented in the transcriptions of the online gaming recordings. The results provided in this part provides the overview of how the conversation and conversational tools are used as analyzed using the sequential approach of CA (Auer, 1984; Li Wei, 1998). The main findings show that these sentences and conversational turns provide examples of CS and the linguistic varieties available for the participants are used as conversational tools in conversation.

The final example show how a full conversation in English is happening inside the game between Balder, Friend2, and Friend 3.

Example 4.3.4 (From Brevik & Holm, in press):

Friend3: So, no one actually planned on telling me we jumped? No?
Balder: No.
Friend2: Eh, no.
Friend3: Okay boys. Thanks for the heads up. Ja.
Balder: I hope thats ok.
Friend3: No. I planned on doing something you know, in the eyes of actually seeing where I landed, but, whatever.
Balder: Eh, imagine seeing where you're landing.

Again, Example 4.3.4 above, serves as an example of how each turn in conversation restores the others. When Balder and Friend2 are addressed by Friend3 in English, they reply in English. Unlike example 4.3.2 they are not interrupted by an external factor, and thus the conversation continues in English commenting on what they are doing inside the game and answering questions.

The findings from both the interviews and the online gaming recordings will be further discussed in the following chapter based on the theory to answer the research questions of this thesis.

5.Discussion

In this section the theory presented in chapter 2 will be used to discuss the data as analyzed in the previous chapter (4). First, I will discuss the research questions by turn, starting with RQ1 and the interview data before discussing RQ2 and RQ3 with the gaming data. Finally, I will try to sum up everything discussed in this chapter by answering the overarching research question of this thesis: **To what extent do Norwegian adolescents code-switch between English and Norwegian when they play online games?**

5.1 The markedness of choice

RQ1: What are two Norwegian adolescents' perceptions on their own use and/or mix of languages while playing online games?

To answer this first research question the interview data must be discussed in light of the theory presented in chapter 2. As we saw in the previous chapter (4.1.1 and 4.1.2), both Mats and Edvard preferred to use English or a mix English and Norwegian in their spare time while talking with their friends online and talking about gaming. However, only Mats CS during the interview. Mats's views on the mix of English and Norwegian were also positive, while Edvard's views were connected to negative associations with switching between the two languages during the interview.

The RO-sets (Myers-Scotton 1993a) of the conversation indicates an unmarked choice where both Mats and Edvard would make less notice to themselves i.e. speaking Norwegian, as the questions of the interview are asked in Norwegian. The main difference between Mats' and Edvards' interviews were that Mats used English words both knowingly and without commenting on them. As Mats's language use on his spare time are connected to English, he used some English words to answer questions about his language use making his answers in some way marked. Mats does comments on some of these marked choices of English during the conversation himself and immediately states that it was a mistake, while at other times he does not comment on them and continues with the interview.

Speakers have a choice of what language to use in certain situations. This marked and unmarked (Myers-Scotton, 1993a) choice of the participants language usage can be seen as a reference point to analyzing some of the language use of these participants during the interview situation. This has to do with positive and negative associations with language use which in turn, may explain why Edvard did not switch due to him not wanting to deviate from the language of the interview, i.e. the unmarked choice of conversation. On the other hand, Mats's positive attitudes towards the use of English may explain why he switched codes during the interview. Like shown in examples 4.1.1 and 4.1.8, Mats's reaction to his own language use may be linked to the markedness model (Myers-Scotton, 1993a), as Mats is aware of this type of switching where the Norwegian word is being switched with the English one is a form of unconscious marked choice made by him, which he feels he has to justify after making what he believes to be a 'mistake'.

Linking Mats' language use to the markedness model (Myers-Scotton, 1993a), it is likely that Mats has a choice of using the marked or unmarked code during speech. However, he does react to some lexical borrowings and CS during the interview, but only those who does not have to do with gaming language. He even explains this in the interview with what he believes to be the frequency of words he uses on his spare time, where the majority of the language use being English.

Mats's frequency of language use can be seen in examples 4.1.2 and 4.1.4. These instances may be linked to Mats having a way to decide what codes to use when talking about gaming. Or it could be that the linguistic codes in Norwegian referring to gaming language like the words *competitive* and *tournaments* were not as available to him as the English counterpart as this is something he uses more frequently than their Norwegian translations. The reason for this is even explained by Mats himself in example 4.1.3 where he states that he rarely uses the Norwegian word for *Lithuania.* In addition, Mats's language use seems to influence the grammar of Mats's L1 Norwegian like in Example 4.1.7. Similar results have been researched by Sunde and Kristoffersen (2018), indicating that these calques or lexical loans even include these loan translations meaning that grammatical structures from English may influence the syntax of Norwegian sentences.

Another aspect of the interview situation is how the participants describe their own knowledge of English. Mats states that English is like a mother tongue to him, while Edvard states that he uses English over half the time, in what he describes as a 60 to 40 relationship with preference to English in comparison with Norwegian. These are the participants self-report of their own language use, and this study did not aim to test their actual language proficiency. However, it gives some insight into their language self-report and use. Mats used more English in the Norwegian interview than Edvard, and if we turn to Weinrich's (1953) theory of bilingualism "the practice of alternatively using two languages will be called here bilingualism, and the persons involved bilinguals" (p.5), Mats would fit the description.

Since the addressee influences the choice of model according to Myers-Scotton (1993a), the "speaker-centred model" where the speakers themselves make these choices by trying to increase their own positions or conveying their own perceptions through their language choice, the model can work as a clarification of Mats's positive and Edvard's lexical behavior during the interview. With Mats's positive attitudes towards the mix of English and Norwegian serving as an explanation of him switching languages during the interview and and thus Edvard's' negative attitudes influenced why he did not switch. According to the markedness model (Myers-Scotton, 1993a) the participants may have been conveying their own perceptions during the interview through their language use. Like in example 4.1.4 where Mats pauses before using the lexical borrowing *tournamenter* might indicate that he has a choice on what word to use in that situation, especially since he does not react to himself saying the English word instead of the Norwegian one.

On another note, the reason for the gamers being so aware of their language use may be due to the interview situation being a formal setting and carried out solely in Norwegian and in turn an effect of the observer's paradox (Labov, 1972) explained earlier. The careful notice they have to their own language where they use the marked choice during the interview, or like Edvard avoid using the marked choice at all may be explained by the formal situation of the interview.

However, the unmarked choice is different in different situations. Like explained by both Mats and Edvard, using English words with peers, friends and siblings would not deviate from the norm. This is due to what they refer to as 'slang' being spoken together with this

group of people, making speaking *solely* Norwegian together with this group a marked choice. The use of this kind of language together with friends is similar to what Gumperz (1982) describes as we- and they-codes. Where we-codes can be determined as the vernacular language Mats and Edvard refer to as *slang* when mixing English and Norwegian while gaming or talking about gaming, while they-codes would be the language spoken on a daily basis not deviating from formal settings per say.

In the interview with Mats, it becomes apparent that the two switches appear at the end of the sentences and makes these switches are intrasentential as they happen within the same sentence utterance. Both the CS instances in examples 4.1.2 and 4.1.3 as well as the lexical borrowings appear at the end of the sentences. However, sometimes, like with example 4.1.4 he adds the Norwegian suffix endings to fit the matrix language of the rest of the sentence (Norwegian) while in example 4.1.2 and 4.1.3 he does not.

Both Mats and Edvard seem to be preoccupied with how others see them in relation with their identity and language use. The question of identity and language use is also something both Mats and Edvard were asked about during the interviews. According to Mats you would be 'socially dead' if you do not know English, and Edvard states that people might notice him switching languages between English and Norwegian and thus understand that he spends a lot of time engaging with the English language. English is also a language in which Mats connects to the use of computers, saying that if you do not use computers or social media you will not be proficient in using English. This relates to how both Mats and Edvard states that they have learned English from an early age by spending time using and communicating in English on their computers. In the interview with Edvard, he states that people might see that English is important to him if he start mixing English and Norwegian during a conversation since he spends so much time using English while playing online games.

The answers given to these identity questions in addition to Mats not deviating from the unmarked choice of the interview might index their speaker identity. Edvard, based on his answers in the interview seems to be the one most rule bound to not deviating from expected norms, by using the unmarked lexical choice i.e. L1 Norwegian during the interview, in addition to stating that he use his L2 English on his spare time with friends. Mats on the other hand might have a wish to convey his speaker identity and use the marked choice in conversation, sometimes consciously and other times unconsciously. His responses during

the interview also states that using English on his spare time is a form of unmarked use, as you would deviate from the affinity spaces he is part of.

Furthermore, it is difficult to generalize a uniform gaming culture, based on these two gamers only. During the interviews it becomes apparent that they are part of the affinity space of gamers (Brevik & Holm, in press). Several sub-spaces are mentioned throughout the interviews and both of the participants mention that there are several gamers in their class as well, which makes it easy to use the gaming language or what they refer to as *slang* at school as well. However, we can see that the participants are all part of their own affinity spaces within the gaming sub-culture (Gee, 2017).

First and foremost, the participants in this study described the language they use during gaming as *slang*. Moving back to the identity theory of affinity spaces, it is clear that these teenagers are part of the affinity space of gamers (Brevik & Holm, in press). They are part of several subcategories within the larger category as gamers, the language they describe as *slang* is used among their peers who they both encounter at school, online or elsewhere. School and breaks where they communicate with their peers might be one of these subspaces where they use gaming language. Another space is the game itself, as well as the platform they use for communication with each other (Gee,2017).

5.2 Loanwords or CS?

RQ2: What types of code-switching occurrences can be observed among Norwegian adolescence when participating in online gaming?

Three types of switches have been identified after analyzing the gaming and interview data. (1) lexical borrowings with Norwegian suffixes, (2) single word switches and (3) full sentences. While there is still a disagreement between researchers if word-internal switches can be identified as code-switches or not (Muysken, 2011), it is clear that several types of switches appear during a conversation. In the gaming data presented above the highest frequency of switches were that of one-word switches which do not count as word-internal switches as the words are following the English grammar and not the Norwegian. There were fewer switches between English sentences (intersentential switches). However, for the sentences that were switched, the main part of conversation can be deemed CS and analyzed using the sequential approach (Auer, 1984).

As mentioned, the matrix language of all instances of CS in these examples are Norwegian. This is due to the dominant language of a bilingual speaker is usually the one they can keep a conversation in entirely without switching code, like with Petersen's (1998) study with the dominant language hypothesis. The participants of this study did mostly switch to L2 English while speaking L1 Norwegian. However, there are as we saw some instances of full sentences in English where they did not immediately switch to L1 Norwegian, in these cases, like with Boes' and Vinh-Hung's (2017) study of world of warcraft online forums, the matrix language is indeed English.

Like with the dominant-language hypothesis (Pettersen, 1988), the grammatical morphemes in conversation of the dominant language i.e. Norwegian do co-occur with the lexical morphemes of both the non-dominant language English, as well as the dominant (matrix) language of the conversation, Norwegian. However, there were no evidence from the corpus of the usage of the non-dominant or embedded language of the conversation in use with Norwegian root words with English suffix endings. This type of switch (lexical borrowing) only appears when the participants use English as an embedded language in Norwegian sentences,

Furthermore, some words are used more often than others. By taking Myers-Scotton's (1993b) theory of cultural forms and core forms, or the 'rule of three' into consideration, we can see that some words in the corpus can be classified as loanwords (culturalforms), while words or clauses appearing less than three times during a conversation can be identified as CS. These lexical categories were different in game play 1 and game play 2. In game play 1, the instances of cultural forms appearing more than three times in the transcription, were mostly connected to gaming language. Words like *game, heal, shield* were used several times and therefore in this thesis determined as cultural forms in game play 1. While in game play 2 in addition to these gaming-specific words, we get more use of words to establish belonging to the other players with words like *basically* and *ait* being determined as cultural forms with frequency above 3 times. However, in game play 2 single word switches are also the majority of switches during the game play, with a total of 61% of all switches in contrast to 49% in game play 1. As single word switches are a majority in game play 2, this may in turn influence the use of other words than the vernacular language directly connected to gaming language like in game play 1.

As seen from Sunde's (2016) study on gaming language, and further exemplified here in this thesis, the language of gamers is filled with loanwords (lexical borrowings) mostly nouns or verbs with English roots and Norwegian suffixes. In game play 1 the use of these lexical borrowings with Norwegian suffixes makes up around one third of the total instances, while in game play 2 these lexical borrowings make up around 10% of the total instances. Thus, in game play 2 we get more single word switches without Norwegian suffixes, and fewer lexical borrowings. In all cases of these lexical borrowings however, the English root words are created using Norwegian suffixes to fit the Norwegian grammatical functions of the sentences, i.e. the matrix language of the conversation.

Comparing the interview data with the markedness theory (Myers-Scotton, 1993a), we can tell that making marked choices (for example by translating gaming language to Norwegian) would deviate from the linguistic codes already used in the gaming world. Although both the marked and unmarked codes are available for the speaker, they tend to favor the unmarked one – i.e. gaming language in English. However, adding Norwegian suffixes to English root words is used by these gamers, and can be a conversational tool to mend gaming language into Norwegian grammatical sentences without solely speaking English. This will be further addressed in the next section (5.3).

5.3 Addressing the pattern

RQ3: Is there a pattern as to when and how gamers CS during game play while speaking with their Norwegian friends?

From the data presented it is apparent that the gamers switch and use the language they are addressed with in conversation. By using CA in analyzing conversations between the players two patterns have been observed:
1: The gamers respond to the language in which they are addressed in. If they are addressed in Norwegian, they will respond in Norwegian, likewise if they are addressed in English they will respond in English.
2: If the players do not receive a response, they may switch languages. This can be seen as a conversational tool to attract attention from the other players/interlocutors.

It is difficult to establish a pattern of these instances with only two game plays analyzed, however the use of full sentences in English makes up a good amount of the total switches in both game plays, which provides a different result than what Sunde (2016) experienced from her study.

Therefore, this study also provides insight into how English, and Norwegian are used as conversational tools while speaking with each other. The gaming data provides insight into these uses and users of language and in turn how the interlocutors arrive at a local meaning (Li Wei, 1998). The participants know each other quite well and therefore have a sense of what languages to use in conversation as well as using a vernacular English to communicate throughout the game. By further examining the turn-taking of these participants we can study how these participants switch between turns in conversation (Auer, 1984). This can be viewed as an identity-based strategy used by the gamers to identify with the gaming language (English) and to communicate more easily with their peers when engaging in gameplay.

As CA according to Li Wei (1998) is focused around the "member's procedures of arriving at a local meaning of language alternation" (p. 157), the language use of the participants and how the interlocutors influence each other in conversation. By using the sequential approach

(Auer, 1984) for analysis of the conversations it is important to avoid an analysis of the intentions of the speakers, but instead study how the turn-by-turn conversation influence each other.

In Example 4.3.1 from the findings chapter above, it is clear how every sentence and every turn restore the other. The initial question is asked in English by Balder, and Friend2 replies in English, while the second question is asked in Norwegian, where Friend1 answers in Norwegian. With no gradual transition,these switches between Norwegian and English are therefore examples of intersentential CS (Myers-Scotton, 1993b, 2001) as they are switched between sentences where the languages are used as a conversational tool indicating a question and response in the given languages.

In the process of interaction and the turn-by-turn conversations has according to CA to be understood by analyzing what is being said and analyzed as a conversational resource (Auer, 1984). Like in the examples in 4.3, the participants make use of their linguistic repertoire as a resource for communication. This contiguous stretch of talk is not something happening *gradually* throughout these examples, instead Balder and his friends use English and Norwegian alternatively in different contexts to communicate with each other. In example 4.3.3 the languages are changed as to attract attention towards something they want from the other players and is perhaps a way for Balder to attract attention from Friend1 and Friend2 and thus used as a conversational resource (Li Wei, 1998).

The examples provided in the findings are however, not so far away from how Blom and Gumperz (1972) explained situational and metaphorical switching. Like with example 4.3.2 where the sneeze (change in situation) also alters the language use of Balder. The changing of variety from either Norwegian to English or the other way around can be deemed an example of metaphorical switching as it influences the atmosphere within the conversation, in addition to be used as a conversational resource, like in example 4.3.3.

The main features of these examples shows that questions are usually asked in English, and responses are in turn given in English. The language is sometimes switched back to Norwegian, either by an external factor (like the sneezing in example 4.3.2), or to address someone else or talking about a different topic (like in example 4.3.1). Similar to the CA of Li Wei's (1998) explanation in that the alternation of languages signals to the co-participants

of the conversation how they wish to be interpreted on that occasion and not having anything to do with values attached to the languages themselves in conversation like the markedness model (Myers-Scotton, 1993a) implies.

Where the word that is CS or used as a lexical loanword appears in the sentence has not been identified in this thesis. In the interview with Mats, the lexical borrowings and CS words appeared at the end of the sentence, showing a pattern in Mats' language use. However, from the gaming recordings, English words seem to fill vacant spots where gaming language can be used to fill a gap.

Furthermore, the use of English in gaming conversations may index a habitual use for gaming. As explained by Auer (1990) conversational usage will both construe and display the values associated with the given language and built up in the conversation. With the usage and adaption of several English gaming specific words in conversation both adapted from the game itself, and the affinity space of gamers, the build up of the habitual use of English in conversation can be drawn on this usage. In this way, the use of lexical borrowings, cultural forms and peer language all affect the turn-by-turn interaction of these gamers, knowing what code to use in certain situations and contexts and in turn influencing each turn in conversation.

The pattern that can be identified by using CA to analyze the conversations during game play 1 and 2 may indicate that Balder and his friends make use of their lexical repertoire of English and Norwegian to signal and get attention from the interlocutors. Thus indicating that the languages they are addressed in is in turn the language they will reply in.

5.4. To what extent do Norwegian teenagers code-switch between English and Norwegian when they play online games?

The answer to this overarching research question has to build on the discussion above of the three research questions. First, the interview situation gave some insight into how two teenagers' perceptions of their own language use are related to their use of English and Norwegian during their spare time. Second, the two other research questions have to do with what types of CS can be observed and if there is a pattern to these instances.

Both interview situations provided insight into the language use of Mats and Edvard as well as *why* they use English words while gaming. Both participants mention that they use a type of English while talking with their Norwegian friends while gaming. Edvard provided some examples of what types of words he would normally use during gaming or talking with peers, while Mats both provided examples and CS during the interview, as well as using lexical borrowings with Norwegian endings. Both participants mentioned that the switching had to do with not having to translate the English word, having to do with identity and belonging in a certain environment of gamers, and that it comes more naturally to use the English counterpart.

Based on the answers in the interviews, the main difference between Mats and Edvard has to do with their attitudes towards their language use. Mats' positive attitudes towards English and the use of English may serve as an explanation for why he CS during the interview deviating from the unmarked choice of conversation (Myers-Scotton, 1993a). At some instances where Mats switched, he did not even comment on the switches and moved on with the conversation. Edvard on the other hand expressed negative attitudes toward switching during an interview and similar situations, hence it may explain why Edvard did not deviate from the unmarked choice in conversation. Furthermore, the interview showed examples of how language is used by gamers in their spare time, where the marked choice would be speaking purely Norwegian together with their friends.

The gaming data provided further examples of *how* and *when* these players switched between codes in conversations about gaming. The *how* of CS from the dataset is answered with the division of switching into three (3) categories. The instances have been categorized as either (1) lexical borrowing based on Poplack et al.'s (1988) theory where words that are identified in the study as individual L2 words are adapted into the L1 (usually phonologically and morphology), used in the pattern of the L1 and occupying the sentence slot which is dictated by the L1 syntax, and Muyskens (2011) theory of word-internal switches not being determined as CS. (2) The second category, which is the biggest category from the gaming recordings, consists of single-word switches where the grammar follows the embedded language, being English. Here the switches are mainly intrasentential switches. (3) The final category is that of full English sentences used in conversation being intersentential switches.

The *when* question of CS has been analyzed with the help of CA. The full English sentences have been analyzed using CA (Auer, 1984, 1990; Li Wei, 1994, 1998) as well as the matrix language frame model (Myers-Scotton, 1993b). The full sentences in English have not altered the grammar of the matrix language of the conversation (Norwegian), therefore the matrix language of these utterances has been determined to be English. By using the sequential approach (Auer, 1984) on the conversations between Balder and his friends, it became clear that the participants' turns in conversation restored each other. The two languages, English and Norwegian, were also used as conversational tools to gain attention from the other players on some instances. The pattern observed from these instances shows that the languages the interlocutors were addressed in is the language (either Norwegian or English) they used to answer their conversational partners.

To answer the overarching research question, "to what extent do Norwegian teenagers code-switch between English and Norwegian when they play online games?" it can be said that these teenagers CS between English and Norwegian to some extent. The majority of the conversation and thus matrix language was still Norwegian, around one third of the instances were determined to be lexical borrowings and some words appearing more than three times were determined to be cultural forms. However, the corpus showed examples of both intersentential and intrasentential CS as based on the theory presented in chapter 2. Several single-word switches and full sentences were identified from the dataset, indicating that these teenagers, according to theory CS did in fact switch between English and Norwegian several times during the online gaming recordings.

6.Conclusion

This thesis has aimed to explore the phenomenon known as code-switching by examining the language use and language structure of three teenagers connected to their gaming habits and to answer the overarching research question: *To what extent do Norwegian teenagers code-switch between English and Norwegian when they play online games?* By using data collected during the school year of 2019-2020 as part of the VOGUE project (Brevik, 2019b). The data used in this thesis includes interviews and online gaming recordings from three participants. The data sources were triangulated to answer the overarching research question, as well as the three additional research questions below:

RQ1: What are two Norwegian teenagers' perceptions of their own language use while playing online games?

RQ2: What types of CS occurrences can be observed among the teenagers when participating in online gaming?

RQ3: Is there a pattern as to when and how gamers CS during game play while speaking with their Norwegian friends?

The main findings from research question 1 show that the two participants, Mats and Edvard have different views on their language use during formal settings. Mats both CS and used lexical borrowings during the interview, sometimes commenting on them, and at other times continuing with the interview without commenting on them. Based on the findings and theory of this thesis, Mats' own views of his language use is connected to his use of English on his spare time. In addition, Mats seems to have a choice of using the marked choice (Myers-Scotton, 1993a) in conversation. Edvard on the other hand provides examples on how English is used from gaming and prefers to use the unmarked choice (Myers-Scotton,1993b) for the interview, explaining that although English is important for his identity, it is not suitable to mix English and Norwegian in a formal situation like an interview. The findings have aimed to provide an answer to how the two teenagers sampled for this thesis view their own language use, showing that English is important for playing online video games in their spare time and to be part of the teenage culture.

The main findings from research question 2 relates to theory of CS as language structure. The transcription from the online gaming recordings were sorted and divided into categories based on the theory from chapter 2.3. The three categories identified from the data set were the following: (1) single word CS where the embedded language, English follows the English grammar and used in Norwegian sentences (matrix language). Here, English gaming language words were often used, however the word was not edited on a morphological level, and thus identified as single word CS. (2) Lexical borrowing, here English root words were used in Norwegian sentences, following the syntax of the matrix language, Norwegian where Norwegian suffix endings were added to the English root word. (3) Full sentences in English, here mostly intersentential CS sentences were identified. Thus, answering RQ2 on what CS instances could be identified among the gamers of this study with a separateness from loanwords and lexical borrowing.

These intersentential CS sentences and conversations between the gamers were used to answer research question 3. To answer the third research question, theory from conversational analysis (Auer, 1984, 1990; Li Wei, 1994, 1998) were used and confirmed. The main finding, show that Balder and his friends make use of their lexical repertoire of English and Norwegian to signal and get attention from other interlocutors. Thus, indicating that the languages they are addressed in is in turn the language they will reply in. The *when* and *how* Balder and his friends CS were answered, as a pattern was identified; the gamers responded in the language they were addressed in, being either English or Norwegian. In addition, their linguistic repertoire was used to attract attention from the interlocutors of the conversation as well.

6.1 Limitations and suggestions for further research

The study provides insight into the use of English and Norwegian as well as the mix of English and Norwegian among three gamers. Several theories in relation to CS, loanwords and bilingualism have been used to discuss the data set used in this thesis and provides evidence of the examples following the theory of CS and especially the division between CS and loanwords. The research interestingly also shows that English and Norwegian together in conversation is used as a conversational resource by the gamers while talking online.

These findings show that examples of CS between English and Norwegian are used by all participants on their spare time. However, the majority of the CS identified is the use of single-word switches, some of which appeared more than three times in the corpus, and were thus identified as cultural forms (Myers-Scotton,1993b) i.e. loanwords which indicates a reduction in the examples of single word CS from this study.

The results might be explored further in the future. For example, with a longitudinal study on how the number of hours in front of the computer engaging in English activities online can influence the language use and structure as well as views of a person's own language use. Some findings from this thesis show that gaming language becomes part of the teenagers' everyday language use and influences the way they communicate with each other in their affinity space through different subspaces. Further research may address the conversational turns by following the sequential approach as to *when* these CS appear. By using several game plays other than the ones used here, it would be interesting to see if a similar or different pattern appears.

Finally, this study provides insight into three teenagers' use/mix of English and Norwegian while participating in online games. Globalization has contributed to the spread of English, and teenagers today are interested in and using English. As this study has shown, English is important for the gaming culture, and teenage culture as a whole, as much time is spent in front of the computer engaging in gaming activities where English is preferred and in turn influencing the language of the gamers, indeed providing evidence of the participants' switching between English and Norwegian.

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