Fakultet for utdanningsvitenskap og humaniora

Master's Thesis

Program: MGL330M_1	Semester: 10th Year: 2023
Author: Bjørnar Kristiansen	
Supervisor: Anders Otterbech Jølbo Myrset	
Title of the thesis: Young language learners perception on gaming and language learning	
Key Words: Video Games, Extramural English, Motivation, Learner's Perception.	Word Count: 22725 Attachment/Other: 4 Stavanger, Date/Year:02.06.2023

Acknowledgments

After finishing writing this master thesis I am realizing there are so many people that deserve recognition for helping me get this far, so everyone that I will forget to mention here, Thank you.

First of all I want to thank my girlfriend, Rebekka. For helping me get through this project while we moved. Thanks for reading and correcting all my silly grammar mistakes, which I now hope are completely gone. I also want to thank my family for support and help with just about everything during every year of my life.

Thirdly I would like to thank my friends and study group, Anders, Marius, Peter and Sondre. Although we are not the most focused study group, I could think of no better friends to keep my spirits high during this year.

Last but not least I want to thank my supervisor Anders Otterbech Jølbo Myrset, without his constant support in proof-reading, suggestion of changes to make and things to add, this would not have even been remotely possible.

Abstract

This study explores young language learners video game habits, their choice of games and how that affects their language learning. However, the main focus of this study is to explore the learners own perception about their language learning through video games. This study tries to help fill the gap this topic has in Norway and with younger learners. Two research questions have been made to focus this study. How often do learners in 5th grade play video games & what types of games help them learn? & How do 5th grade learners perceive their own learning through video games?

To find an answer to these questions this study uses mixed methods research. The data collection happened through a questionnaire and two sessions of group interviews. There were 35 learners who participated in the questionnaire and 8 learners who participated in the group interviews.

The most important theory and previous research in this study was the theory behind “Extramural English”, coined by Sundqvist (2009). This theory focuses on children's exposure and language learning outside the classroom, in English activities such as movies, tv, music and most relevant for this study, video games.

Results from this study are presented in text, tables, graphs and charts to try and clearly show the data that have been gathered. The key findings of the study were that learners had some perception of their own learning. Improved vocabulary, reduced anxiety, improved motivation and social benefits were among the things mentioned by the learners.

1.0 - Introduction

The aim of this study is to discover what learners think about their own language learning from playing video games. Many young learners today engage with video games in one form or another. If these learners also experience any learning from their out-of-school activity, they are better equipped in using the English language. Research shows that video games can be beneficial in developing language learning (Hubbard, 1991; Pinter, 2017), but are the learners aware of this themselves? In order to try and answer this two research questions were made for this study; How often do learners in 5th grade play video games & what types of games help them learn? & How do 5th grade learners perceive their own learning through video games?

The topic has seen some research done around it in many other countries, but for Norway fairly little research has been done. Additionally this type of research around language and video games tends to study older learners, while this study researches younger learners between the age of 10-11.

The expected findings for this study was that the learners who agreed to join the study would be interested in video games. This also led the researcher to believe that they played often and for a fair amount of time. It was also expected that the learners would be playing video games that were cooperative and/or competitive in nature, where they engage with other people. Popular games such as Fortnite (Fortnite, 2017), Minecraft (Minecraft, 2011) and Roblox (Roblox, 2006) were expected to be mentioned by the learners. It was believed by the researcher that some of the learners would have some awareness of their own learning and that they would be somewhat able to express this awareness, at least when prompted.

To find an answer to the research questions and to gauge what the learners thought, two pieces of data collection were planned, a questionnaire and group interviews. The questionnaires were given to all learners willing to participate from the chosen class and 8 learners were chosen to participate in the group interviews based on their answers on said questionnaires.

This study might contribute to helping teachers understand video games as tools for English language learning better. For the researcher a driving force behind writing a study on English language learning and video games was to get more understanding of video games that the learners used and what they valued in them as language and learning tools, so as to better draw upon this knowledge in their own teaching practice. The researcher also had another reason for choosing this topic. As he has always been a fan of video games himself and always felt he learned much of his early English language skills from video games that he played at a young age. This made this topic very interesting to dive deeper into and acquire more knowledge on young learners and video games.

This paper is divided into five main chapters. After this introduction chapter, chapter two will present the literature review. Which will introduce relevant literature, theory and previous research that connects video games and language learning. Some key terms and theories from this chapter are ‘game-based learning’ and ‘extramural English’. Additionally motivation, different learning theories and general theory on video games as a resource and tool will be presented. Previous research by Sundqvist & Sylvén (2016) will also be presented as well as research by Butler, Someya, and Fukuhara (2014) and a review study by Klimova & Kacet (2017).

The third chapter contains explanations of the methods used in this study as well as ethical considerations, explanation of the analysis and limitations of the methods selected. Reasoning for different choices made in this study will be explained and supported.

Chapter four will present the results gathered from the questionnaires and the group interviews. Much of the data from the questionnaires will be presented in graphs and tables, while the data from the group interviews will be presented in tables with the translations of the learners' responses given as unchanged as possible.

The fifth chapter will look at and discuss the results and data gathered in this study. The data will be explained and related to the literature, theory and previous research from chapter two.

The last chapter will offer a conclusion to the paper and sum up the findings of the research and how this study might help further research or teaching practice.

2.0 - Literature review

This chapter of the study presents previous theory and research related to video games and language learning. Different theories related to playing time, types of games, learning theories that relate to video games and video games relation to the curriculum will be presented here. Additionally, considering that video games largely function as a pastime activity for most learners, extramural English is an important concept that will be presented herein. Motivation is the final important theory that will be laid out in this chapter and its relevance to video games that the learners play in their free time. Finally, the second part of this chapter presents previous research done on language learning and video games.

2.1 - Video games and language learning

Whether games offer a benefit for language learning or not is a contested discussion. However, many sources point towards video games having a positive effect on language learning. Those who feel that games offer enough benefits say "[...] benefits range from cognitive aspects of language learning to more cooperative group dynamics" (Lengeling & Malarcher, 1997, p. 42). They can offer motivation for the learners (Lee, 1979 in Thomas, 2012, p. 11) as well as reduce anxiety (Richard-Amato, 1988 in Thomas, 2012, p. 11), focus the learners on using the target language (Silvers, 1982; Zdybiewska, 1994 in Thomas 2012, p. 11), give shy learners opportunities to express themselves (Hansen, 1994 in Thomas, 2012, p . 11), and create a more informal avenue for language learning than what can be offered in the classroom (Richard-Amato, 1988; Wierus & Wierus, 1994 in Thomas 2012, p. 11). While some believe video games serve as simple distractions, "ice breakers" and "gap fillers" or activities that can be used when nothing else is planned (Kim, 1995 in Thomas 2012, p. 11).

Pinter (2017) points to video games being excellent from a language input perspective due to giving context clues in the forms of animation, audio, video, and content. Hubbard (1991) argues that using the right types of games could help language learners acquire new knowledge and skills as well as reinforcing their current ability without intervention from a teacher. On the other hand, Chik (2011, p. 30) claims that video games would become "integral to many people's leisure consumption" and that "their roles in language teaching methodology are still questionable".

However, the past decades have shown how advances in digital technologies have changed education, world, and pastime activities. This includes the widespread use of video games, which is presently a huge part of people's chosen leisure activity. The market for video games in Norway is expected to reach revenue of US$ 1,018m in 2023 (Statista, 2023). Additionally, according to Statista it is a growing market and their projections show that by 2027 the revenue of video games in Norway could reach US$ 1,429m. While back in 2017 the market was only US$ 423m (Statista, 2023).

This increased use of video games as a pastime activity is also evident in children. A report released by Medietilsynet in 2020 said that 96% of Norwegian boys aged 9-18 play video games and 76% of Norwegian girls in the same age range play video games (Medietilsynet,

2020). In the same report seven out of ten 9-18 year olds that play video games said it helped their English language skills (Medietilsynet, 2020). Medietilsynet's report points out that most young learners are in some way using video games already. This means that young learners are exposed to a potentially rich source of language input outside the classroom. For instance, Cameron (2011, p. 90) argues:

> *Children are getting more and more global in their interests through the Internet, television and video, and computer games. Their worlds are much bigger, from much younger ages, than used to be the case. It may be that young learners could take on much more vocabulary than their course books and syllabuses give them access to, given the opportunity*

Taking part in out-of-school activities that let the learner engage with a chosen language could offer the learner more opportunities to learn that language than if they did not engage with the language outside the classroom.

Some sources point towards the fact that young learners are playing video games. The question then becomes, are there any good ways of learning from video games? Pavey (2021) notes two different ways of using video games for learning, gamification and game-based learning. Gamification gives learners different incentives to learn, for example giving the learners a math problem where they compete against the teacher. While game-based learning centers around learning through playing. For this study game-based learning will be most relevant as this study asks learners about their video game habits outside of school and without learning as a primary goal of their playing. Thus the study adopts Reinhardt's term Game-enhanced second language teaching and learning (L2TL) (Reinhardt, 2019). Game-Enhanced L2TL refers to the use of games that are made for entertainment rather than education, but with adaptation could be used for education or inherently offers some form of education or learning. For example games using English speech or text that the users would have to understand to proceed, or games that present social issues that can then be discussed or learned from. Since this research will be asking the learners about their own gaming habits, it would be more likely that they are playing games that are made for entertainment rather than educational purposes. This study will specifically look at the learners' perceived learning from video games they play in their own free time. The learners may be learning English from video games that they then use at school.

2.1.1 - Types of games

Video games of course differ wildly in presentation, style and gameplay. Some games might have more elements and opportunities for language learning than others. Hubbard (1991) noted down a few key points to what makes games helpful language learning tools. In his opinion the learning or practicing of language could not be the central objective of the game. For the game to be successful it would have to lead the learner to become an engaged and cooperative player.

> "Elements such as a problem to solve, competition, timing, and scoring can help to make an activity more game-like, but they are also elements of tests, so they do not, by themselves, lead to cooperative engagement. It is only when the problem to be solved, competition, timing, and/or scoring raise immediate and interesting challenges - from the learners' perspective, "fun" - that a game, rather than a pedagogical exercise, has been created." (Hubbard, 1991, p. 221).

This quote from Hubbard (1991) fits well with this study seeing as the learners are engaging in commercial games not designed for language learning but rather designed for engagement and fun. Hubbard (1991) writes specifically about 'Hangman', a game where learners try to deduce a word before they run out of 'tries'. He points to this type of game as possibly a catalyst for conversation between multiple learners, but that the game itself might not be a perfect vehicle for language learning, because the words the learners need to find might be out of context or outside the learners current vocabulary. Newer video games might sometimes have an easier time connecting new words within a context that the learners can learn from, given that they contain much more detail now than they did when Hubbard wrote his article back in 1991. A few types of games have been researched in relation to how they impact language learning. Mostly this includes genres like simulation games (Cooke-Plagwitz, 2013; Jauregi et al., 2011; Miller & Hegelheimer, 2006; Ranalli, 2008), massively multiplayer online role-playing games (MMORPGs) (Rama et al., 2012; Suh et al., 2010; Thorne, 2008), and adventure games (Chen & Yang, 2013). But studies have also been done on other video game genres (DeHaan et al., 2010). Chen & Hsu (2020) notes that these games differ in genre, but that a few common factors were present that could help facilitate language acquisition. The "games offer high intrinsic motivation for players/learners, facilitating a positive learning attitude in learners" (Chen & Hsu, 2020, p. 812), The "games

often contain rich textual input that requires players/learners to engage in meaningful language use to complete in-game activities and tasks" (Chen & Hsu, 2020, p. 812), the "interactive and immersive experiences games provide can reduce learning anxiety and this may increase use of the target language for interaction"(Chen & Hsu, 2020, p. 812)

2.1.2 - Learning theories related to video games

How do well known learning process theories relate to the learners' use of video games? The aim of this study is to examine the learners' use of video games in their spare time, the types of games that these learners are playing will mostly be video games not specifically made for learning, meaning that they are playing games made for entertainment rather than serious games, serious games referring to games made for educational purposes. Learning theories, such as behaviourism, cognitive constructivism and social constructivism might be relevant, but if it is these processes will be coming from either the video games or the learner's themselves, not facilitated by a teacher.

"Behaviourism is based on the principle of react and response to our environment or external stimuli" (Pavey, 2021, p. 2). Specifically for games this could come about in the form of points as reward or a focus on achieving something to advance to a new level. Pavey (2021) notes that this type of reinforcement could come in the form of reading scheme points or escape room or box challenge settings. Additionally she points out reinforcement could come at the social level by having a leader board that announces the highest points earners.

However Pavey (2021) also notes some dangers with this approach in relation to video games. The learners may feel overwhelmed if they find the task too challenging and that may lead them to 'give up'. Also that skills learned from this motivation may not be permanent could be a real drawback to this type of motivation and learning. Behaviourism in relation to this study might be important if the learners are engaging with video games that have specific focus on points and solving puzzles, but even if they do engage with these types of games the learners might not see language learning in it, and rather have their focus on playing and 'winning'.

"Cognitive constructivist theory considers that humans do more than just react to an environmental stimulus" (Pavey, 2021, p. 3). The theory compares the brain to a computer

and that it acquires, stores and retrieves information (Pavey, 2021). Pavey (2021) believes that game-based learning can offer benefits that are difficult to reach in other teaching styles. “Visuals, auditory or puzzle-based scenarios can be used to gain attention. Sorting or weeding activities can help with working memory and short-term memory. Activities which relate a previous step or experience to the new can help embed long-term memory” (Pavey, 2021, p. 5). Meaning that video games might be a very good tool to garner the learners attention, train their memory and continually build upon previous skills and knowledge. However, Pavey also notes some drawbacks with video games connected to this type of learning. Most notably that this approach does not involve other skills the learner might need, such as social skills (Pavey, 2021).

Social constructivism differs from cognitive constructivism in that the emphasis is placed on social interaction instead of constructing one's own understanding alone (Pavey, 2021), claiming that the brain does not function as a computer as constructivism says and that the social aspect of learning is vital for any real learning to really happen. With video games becoming played by more and more people (Statista, 2023), this theory could be relevant as many of the learners are possibly engaging in social aspects while playing, such as playing with friends and family, or with strangers online. Pavey (2021) notes that video games that have aspects of social constructivism within them helps learners understand how their actions in the game affect their understanding of a task or other players. Making choices based on their observation or past experiences as well as their reflection around their play and thus predicting what could happen next. Social constructivism connects itself to video games with exploring and cooperation. However, this theory also has some drawbacks, with it being considered unstructured and that the interpretation of knowledge might be unbalanced (Pavey, 2021).

While these learning theories may sometimes require a teacher that the learners can learn from they could for this study have some relatability to the learners video game habits. As stated before this study aims to see how the learners themselves perceive their learning in connection with video games, the learning theories might be able to explain if any of the learners statements could express learning.

2.1.3 - Video game relations to the curriculum

Although this study focuses on what the learners perceive that they learn outside of the classroom when playing video games, it could be interesting to see if their thoughts are in any way related to the curriculum. A few elements from the core curriculum were present in the questionnaires, these being core values like critical thinking, creativity, and democracy and participation (Ministry of Education and Research, 2017).

These core values are meant to be present in all aspects of the school and if the learners feel aware that they are engaging with these values outside the school then that would be a positive outcome for them. Also from the core curriculum principles for education we can identify a few relevant terms, social learning and development, basic skills (reading, writing, numeracy, oral skills and digital skills), and democracy and citizenship could all be relevant terms that the learners could be engaging with. More specifically for English language learning there are several competence aims that are relevant for this study.

“Use digital resources and different dictionaries in language learning, text creation and interaction” (Ministry of Education and Research, 2019, p. 7) fits well with the learners’ use of technology to play video games, the video games themselves being a digital resource that the learners could be learning from. “Explore and use pronunciation patterns and words and expressions in play, singing and role playing” (Ministry of Education and Research, 2019, p. 7), some learners might be using ‘voice chat’ to speak English with other players, thus possibly working on their pronunciation, learning new words and expressions while playing.

“Listen to and understand words and expressions in adapted and authentic texts” (Ministry of Education and Research, 2019, p. 7), some learners might play video games that present a story that they need to engage with and understand. “Express oneself in an understandable way with varied vocabulary and polite expressions adapted to the receiver and situation” (Ministry of Education and Research, 2019, p. 7). This aim also contains elements that the learners might be reaching by speaking English online with other people.

Other aims that involve speaking, social skills, writing, critical thinking, could be relevant, such as: “initiate, maintain and conclude conversations about one’s own interests and current topics”, “read and listen to English-language factual texts and literature for children and

young people and write and talk about the content", and "talk about the reliability of various sources and choose sources for one's own use" (Ministry of Education and Research, 2019, p. 7).

2.2 - Extramural English

This study aims to explore young language learners' use of English in out-of-school activities, specifically in their use of video games. Whilst teaching languages in the classroom is crucial for the learners development, young learners' use of technology has dramatically increased and this technology presents a new arena for language learning. This new arena for language learning thrives outside of an educational setting. This will be referred to in this paper as Extramural English. Extramural English (EE) is a term within language learning coined by Sundqvist (2009) which aims to describe learners' use of English in out-of-school activities and how it impacts their oral and vocabulary proficiency (Sundqvist & Sylvén, 2016). EE as used by Sundqvist & Sylvén (2016) encompasses all forms of out-of-school activities, such as video games, music, films, internet and so on. One important aspect of EE is that it is not initiated by a teacher or someone else within the educational institution. It has to be initiated by the learner themselves or by someone else outside the educational institution, such as a friend or family member (Sundqvist & Sylvén, 2016). In Extramural English it is then possible that a learner will take control of their own language learning, linking Extramural English heavily with learner autonomy, however this language learning may not always be the prime goal of the out-of-school activities the learner engages with (Sundqvist & Sylvén, 2016). Reinhardt (2019) points to two facets of learning through gaming, namely "playing to learn" and "learning to play". "Learning to play" would mean that the only learning that is really happening is an understanding of the game itself, with little understanding or knowledge gained outside the game. This would of course not be very helpful as an educational tool. On the other hand, "playing to learn" could take motivation and interest away from the learners. As the focus now has shifted from something engaging and fun to simply a tool for learning (Reinhardt, 2019). For EE to be properly beneficial to language learning it would then have to combine both the carefree fun nature of

playing and let the learners almost unknowingly acquire new knowledge. Sundqvist and Sylvén (2016) created a model to describe how they felt EE fit into language learning.

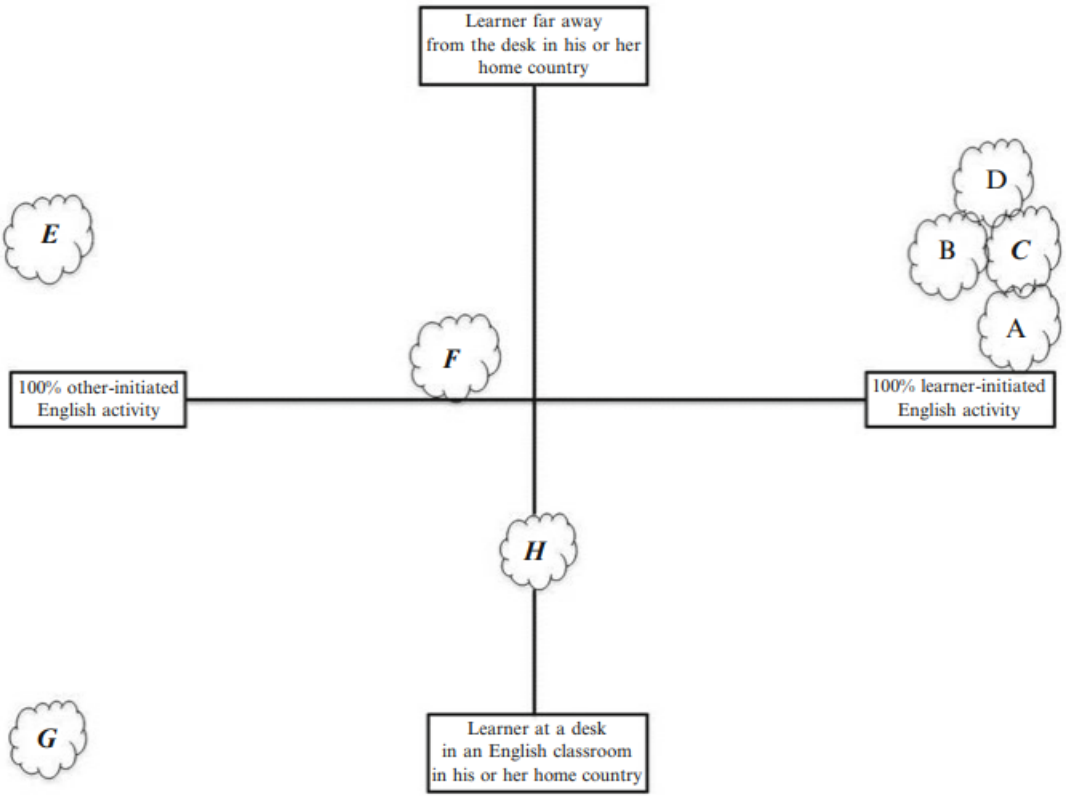

Fig. 1.1 Model of L2 English learning; EE activities in the upper right-hand corner (Sundqvist & Sylvén, 2016)

Figure 1.1 shows a visual representation of their model. The horizontal axis represents the learner's motivation for learning English and also depicts how independently the learner initiates an English activity. While the vertical axis represents the learners physical location when doing an English activity (Sundqvist & Sylvén, 2016). This means that true EE scenarios happen in the upper right side of the model. Sundqvist and Sylvén (2016, p. 12) also notes that their theory also "[...] differentiates between intentional and incidental L2 English learning", meaning that a learner might engage in an EE activity without the purpose of learning language. This is especially relevant for this study as there is little doubt that the learners are most likely playing video games for fun and not specifically to learn English. Figure 1.1 also shows a few example scenarios of English activities:

> *"A. Learner-initiated English activity directly outside the classroom; learner alone, for the purpose of entertainment.*

B. Learner-initiated English activity in the home; learner alone; for the purpose of entertainment.
C. Learner-initiated English activity in the home; learner alone; for the purpose of learning English.
D. Learner-initiated English activity in the home; learner and others online; for the purpose of entertainment.
E. Teacher-initiated English activity in the home; learner alone; accessing the Internet for the purpose of learning English
F. Teacher-initiated English activity but with strong learner input; at the school but outside the classroom; learner and three peers; for the purpose of learning English.
G. Teacher-initiated English activity in the classroom at the desk; learner alone; for the purpose of learning English.
H. Learner-and-Teacher-initiated English activity in the classroom but not at the desk, learner and one peer; for the purpose of learning English." (Sundqvist & Sylvén, 2016, p. 12–13)

Examples A-D from this list shows EE activities, while E-H shows other English activities.

2.3 - Motivation

Motivation is an important factor in language learning. Teachers are often encouraged to make curriculums relevant to the learners as a way to motivate the learners in the classroom (Dörnyei, 2020, p. 53). Video games offer simple motivation to many learners as it can often be overlooked that learning is even happening by the learners themselves. Gardner & Lambert had a theory in 1959 related to the motivations behind learning a new language.

> *It is our [Gardner & Lambert] contention then that achievement in a second language is dependent upon essentially the same type of motivation that is apparently necessary for the child to learn his first language. We argue that an individual acquiring a second language adopts certain behaviour patterns which are characteristic of another cultural group and that his attitudes towards that group will at least partly determine his success in learning the new language* (Gardner & Lambert, 1959, p. 267).

Gardner & Lamberts' (1959) belief that learners need to adopt certain behaviours or characteristics of the culture group where the language might have had a different implication in 1959 than it has today. As the world has gotten increasingly more developed and connected it has also gotten smaller. While learners today might not have a total view of other cultures just from being exposed to them on a computer or a tv-screen there is no denying that technology has given learners an easier access to other cultures, but might also have created new subcultures altogether. For example video game culture, which many learners today are engaged with. Video game culture can be found in individual games and in gaming as a whole. This could be a culture that the learners in this study will have to adopt and integrate themselves into, and in the process of doing so might be learning English. Another facet of motivation that would be relevant for this study is what is called intrinsic and extrinsic motivation. Intrinsic motivation as explained by Sundqvist & Sylén (2016) is when "people initiate an activity for its own sake, simply because they want to experience pleasure or satisfaction: the joy of doing a specific activity, or satisfying one's curiosity". This line of thinking again fits well with learners from this study playing video games. Video games in this case being something the learners want to do for entertainment rather than learning. The other type described here, extrinsic motivation, "can be explained as individuals performing a behavior as a means to a specific end" (Sundqvist & Sylvén, 2016). This type would be more inline with what happens in the classroom with a teacher guiding the learners.

2. 4 - Previous Research

Focusing on Swedish learners, Sundqvist's (2009) PhD study found that Extramural activities impacted the learners vocabulary much more than their oral skills (which were the two aspects researched in her study), but that it did have an effect on both aspects. Additionally the study reveals that extramural activities where the learners are more active and engaged (video games, Internet, reading) had a greater impact on their oral and vocabulary skills than more passive activities (television, music). She also found that boys spend significantly more time on productive extramural activities than girls, and thus extramural activities have a greater impact on the boys' oral and vocabulary skills. Sundqvist's (2009) study had in total 80 participants, 36 boys and 44 girls.

Sundqvist (2009) notes that four different background variables were researched, i.e. travels abroad, parents' educational background, the number of books in the home, and residency (urban versus rural). Sundqvist states that residency was the only variable that impacted Extramural English in her study. She reports that learners living in urban environments spend more time on all extramural activities, except for one, playing video games (Sundqvist, 2009). However, she also notes that gender plays a larger role than the learners residency (Sundqvist, 2009). This seems to line up with the report from Medietilsynet (2020), in that the report shows 96% of boys play video games as opposed to 76% of girls playing video games. Sundqvist (2009) concludes that extramural activities are a way for learners to improve their oral and vocabulary skills and that extramural activities where the learner has to be an active participant are more beneficial than activities where the learner can be passive (Sundqvist, 2009).

Butler's (2022) study, a study on pre-school learners of English as a second language (L2). Her study shows that screen media (TV, video & apps), digital books and social robots (social robots being physical digital agents that adopt human behaviors to interact with humans) have potential as L2/FL (foreign language) learning tools (Butler, 2022). However, these activities do not guarantee positive outcomes by themselves. Butler notes two important aspects, firstly, the role of developmental appropriateness of content and function. Meaning that these tools can benefit children in their language learning as long as it does not exceed the learners cognitive capacity. Secondly, the importance of meaningful interaction with adults and digital agents, meaning that young children benefit from not engaging with digital tools on their own, but rather in cooperation with an adult. Linking the use of video games with sociocultural learning theory and the zone of proximal development. Meaning that in cooperation the learner or player might achieve more than they could on their own (Pavey, 2021, p. 6). This could be done through non-verbal cues such as, pointing, joint attention, eye gaze (Butler, 2022). Butler also notes the possibility of negative effects from using digital tools excessively and their potential to have a negative effect on children's social and emotional development (Butler, 2022).

A study by Butler, Someya, and Fukuhara (Butler et al., 2014) investigated 3945 children's game playing habits in Japan. These children were in four different age groups between four and twelve years of age. The authors found that children who played regularly improved their English proficiency, however this was not visible in the schools English tests. This would

seem to indicate that there could be a gap between what schools are looking for and test and what the learners actually use and know in their meeting with video games. However, this study used instructional games that had clearer language objectives and goals than games made for entertainment. Butler, Someya, and Fukuhara (2014) note that a game's attractiveness might impact the user's motivation positively. The learners that participate in this study might be playing newer video games, which might be more technologically advanced than older games. i.e. the video games they are playing might be more motivating for them than older games have been in the past, by looking and playing better.

Klimova & Kacet's (2017) review study looks at the efficacy of computer games on language learning and gives negatives and positives of computer games in FL learning (Klimova & Kacet, 2017). They review six individual studies (Aghlara & Tamjid, 2011; Ashraf et al., 2014; DeHaan, 2011; Lim & Holt, 2011; Shokri & Abdolmanafi-Rokni, 2014; Smith et al., 2013) that in various ways look at video games and language learning. Klimova & Kacet notes four benefits for computer games in language learning and five limitations. On the one hand, they argue that the benefits are:

> *exposure to the target language; increased engagement; improvement of language skills, structures and vocabulary in particular; computer-aided language learning technologies will continue to be developed and may enhance learners' involvement in communication* (Klimova & Kacet, 2017, p. 24).

On the other hand, according to Klimova and Kacet, the limitations are:

> *high interactivity may hinder the vocabulary acquisition and learning; low efficacy of studies; a lack of studies on this topic; not all games are useful for language learning; a lack of knowledge about computer games among language teachers and institutions hinders their proper use* (Klimova & Kacet, 2017, p. 24).

This means that whilst video games include benefits, such as exposure to language, increased engagement from the learner, opportunity to improve language skills, structures and vocabulary, and the fact that video games will only continue to develop as time goes on. These benefits which might directly foster learner's language development, some limitations in video games, such as high interactivity hindering vocabulary acquisition and learning, low efficacy of studies, a lack of studies on the topic, not all games being useful for language learning, and a lack of knowledge about video games among teachers and institutions

hindering their proper use. Which might also hinder the learners' development. For example, while video games provide opportunities for exposure in the target language, games might not be developed with language learning in mind, this is especially true for commercial games. Just like any authentic material that can be used for language learning, the teacher may have to make connections, alterations and adaptations for these resources to function as tools for language learning (Pinter, 2017, p. 132).

This chapter has presented the current role of video games in society and theories related to using games for language teaching and learning. In addition, considering that video games are primarily a pastime activity, i.e. an activity that happens outside of the classroom, the learning that may occur is also outside the control of formal education. Thus an important concept introduced in this chapter is Extramural English, which describes the different forms of input that learners may encounter outside the classroom. Previous research has shown that learning happens when learners are exposed to the language, but that this is not always visible in school tests. Additionally learners might learn more when guided by other people, for example an older family member. Klimova & Kacet (2017) has also presented several benefits, but also drawbacks for computer games in language learning.

The next chapter turns to the current project, which explores the gaming habits and the perceived language learning through video games by Norwegian EFL learners in 5th grade. Specifically, the next chapter presents the considerations and procedures of data collection.

3. 0 - Methods Chapter

This study aims to explore 5th grade learners' video game habits and their English language proficiency. Two research questions helped focus the study: “How often do learners in 5th grade play video games and what types of games help them develop their language skills?” and “How do EFL learners in 5th grade perceive their own English language learning through video games?”. In order to shed some light on this topic, learners in the 5th grade were asked to participate in a questionnaire and group interviews. This chapter presents the design and procedures of the data collection. Firstly, the study is informed by both quantitative and qualitative data. Thus, it employs a mixed methods research design, which is presented first. Secondly, this chapter presents information about the participants and the data collection

context. Thirdly, this chapter will present information about the questionnaire and group interviews. Lastly, the scientific quality and research ethics will be presented.

3.1 - Mixed methods research

This project includes group interviews and questionnaires, where the questionnaires offer quantitative data and the group interviews offer qualitative data. Thus making this research a mixed methods research (MMR), with weighting on the qualitative strand. Dörnyei (2007) defines quantitative data as data that is mostly presented numerically and that the data is primarily analyzed by statistical methods. The answers the learners gave in the questionnaire are used as quantitative data and helps answer the first research question "How often do learners in the 5th grade play video games and what types of games help them develop their language skills?" Additionally the questionnaires will help inform the researcher which learners should be present in the group interviews. Thus the purpose of the questionnaire is two fold: firstly, to provide an overview of the learners video game habits as a whole, and secondly, to provide the researcher with the learners who have specific characteristics related to gaming habits. The group interviews present qualitative data. This data helps answer the second research question: "How do EFL learners in the 5th grade perceive their own English language learning through video games?" Dörnyei (2007) defines qualitative research as data collection that mostly results in open-ended or non-numerical data, and then analyzing that data using non-statistical methods. Furthermore, Dörnyei (2007) notes that interviews can be recorded, transcribed and analyzed for their content afterwards. For this project the group interviews provide a deeper insight into the learners thoughts about video gaming and their English language skills.

The group interviews will give the learners a chance to express how they might learn English by playing video games and how it might differ from their regular English language learning. A strength of MMR is that the researcher may increase the strength of their research while eliminating weaknesses. For example in a mixed methods project a sampling bias can be counteracted if the qualitative participants are based on results from a quantitative survey (Dörnyei, 2007). In this project this was done by asking the learners to complete a questionnaire before the group interviews where each questionnaire sheet was marked by a number to identify the respondent. In other words, no names were included in the questionnaire responses. Thus, the researcher only had access to numbers when choosing

which learners to interview and was not able to select interview participants based on name, gender or any other variables.

Furthermore, Dörnyei (2007) notes that MMR might improve validity and generalizability, meaning that MMR data could validate itself by using different data collection methods. By using a questionnaire before the group interviews the researcher may be able to see like-minded thoughts in the group interviews and the questionnaires. Dörnyei (2007) also notes multi-level analysis of complex issues as a strength of MMR. This means that answers gained from qualitative data can help decode quantitative data. It gives the researcher the ability to obtain data about the individual as well as broader societal context, in this case within the grade (5th grade) chosen for investigation. However, MMR also has some drawbacks that need to be presented. The drawbacks for MMR will be presented in the Scientific Quality section (see section 3.5)

3.2 - Participants and sampling strategy

The participants of this research were two previous teaching practice classes of the researcher. The learners were 10-11 years and in the fifth grade of schooling. Altogether, there were 60 learners, with 29 learners in one of the classes and 31 in the other respectively. The two classes have two different English teachers. Not all learners consented to take the questionnaire and in addition some learners were not at school on the day of the questionnaire. Consequently, 35 learners responded to the questionnaire. However, the 35 learners who answered the questionnaire provided the researcher with a fair amount of data that helped select the 8 learners that participated in the group interviews as well as to tailor the questions to the context.

8 learners were chosen to be in the group interviews. They were selected based on their answers from the questionnaire as they all displayed some knowledge and experience with video games as well as showing some enthusiasm for video games in connection with language learning. As mentioned, the 8 learners were selected by the researcher from a set of numbers. In the group of 8 learners 7 were boys and 1 learner was a girl. The learners had stated in the questionnaire that they agreed or strongly agreed that one could learn English from video games. They had also stated in the questionnaire multiple ways that they

specifically were learning English in video games, like learning new vocabulary, pronunciation, reading, writing, and listening.

Due to the learners being from two previous practice classes of the researcher the sampling strategy for this research would be considered convenience sampling. Dörnyei (2007) defines convenience sampling as choosing the samples based on practical criteria such as geographical proximity, availability, accessibility and willingness to volunteer. Dörnyei's (2007) points of geographical proximity, availability, accessibility and willingness to volunteer were all considered when choosing learners for this research. The learners were from a previous practice class of the researcher and the school was in close proximity to the researcher. The teacher that the researcher had contact with at the school was willing to let the researcher conduct the questionnaire and group interviews with the class.

The population that was chosen for this research was as previously stated convenience sampling. Additionally the population was suited to help answer the two research questions. There was no additional sampling done specifically for the questionnaire, however the questionnaires helped choose the right population for the group interviews that occurred two weeks after the questionnaire was finished by the initial population.

3.3 - Data collection methods

3.3.1 - Questionnaire

A questionnaire is a series of items presented to the participants. The learners will have to answer these items, which will gauge their feelings/understandings of the topic. A questionnaire was chosen for this project as a way to gather initial information from the learners about their video game habits and their general feelings towards video games and English language learning. The questionnaire contains 20 items (Appendix 1), these items are generally presented as multiple choice questions or questions asking the learners to write a short sentence giving their own thoughts. A questionnaire was chosen for this research to best help answer parts of the research question: "How often do learners in 5th grade play video games and what types of games help them develop their language skills?" Question 8 & 9 on the questionnaire (Appendix 1) aimed to provide insight into how often learners in the 5th grade play video games. Questions 10, 12, 13 & 14 provides the researcher information about

the types of games the learners play and engage with. Thus, these items helped determine whether some types of games are providing the learners with more support than other games in the development of their English language.

The questionnaire gave the researcher insight into the learners daily habits with video games and what types of games they currently play. On the day of data collection, the learners from the first class were split into two groups, one group that would be participating in the questionnaires and one group that would not participate. The researcher told the learners that they would be handed a survey in paper form that consisted of six pages and twenty questions. The learners were informed that some of the questions would have them write out an answer while others would have them tick one or more boxes. The learners were also told that these questions did not have any right or wrong answers and that the researcher was only curious about their answers. The learners were also instructed that when they finished they could leave the room and join the other group, handing their questionnaire over to their teacher who would note down their name next to a number that was assigned on each sheet. This ensured that the researcher could not identify individual respondents when analyzing the questionnaire responses, and ultimately ensured the learners anonymity. The same procedures were done for the second class.

The questionnaire helped make the interviews relevant for the learners in that the researcher learned what games they played in their free time. Furthermore, the questionnaire could help engage the learners' prior knowledge and provide the researcher with an overview regarding the learners' thoughts and interests for the researcher. This information was then used to expand the group interviews, for example adding visual aids (Appendix 4) that were used during the group interviews (Iwaniec, 2019). These visual aids were used so that the learners could pinpoint examples where they learned English.

In addition to the open-ended questionnaire items, some questions in the questionnaire used a 'Likert Scale' response type. In other words, the items prompted the learned to respond on a scale ranging from 'strongly agree' to 'strongly disagree' (Iwaniec, 2019). Similarly, in one item the learners were presented with three emoticons, i.e. a smiley face, a neutral face, and a frowny face, and asked to respond based on their feelings towards the English subject. Both of these items used five and three answers to keep the number of options low, which could be helpful to young learners (Iwaniec, 2019). Too many options might make the learners unsure

on what to answer, while giving them more room to answer might give some learners a difficult time deciding what to write. Having fewer and pre-planned answers cuts down on time for the learners to make a decision and keeps them within the confines of what the question is asking. If the learners spend too much time on a single question they might become unmotivated to finish the questionnaire, and this would be very detrimental to the study if the learners became unmotivated during the first few questions. Both these items in the questionnaire gave the learners a neutral option. For item 3 this was done because it was a general question about their feelings about English. Item 17 was also given a neutral option in case any learner was uncertain of their own opinion, which could make it difficult for them to continue the questionnaire if they felt they had to make a decision one way or the other, when they were really unsure. The questionnaire was translated into Norwegian for the learners to ensure that they were able to answer freely and feel a sense of mastery with the task (Pinter & Zandian, 2014).

3.3.1.1 - Conducting the questionnaire

On the day of the questionnaire 35 learners were present and had agreed to do the questionnaire. The learners in the class who had not agreed to do the questionnaire moved to a different room with their teacher where they had a regular English session. The teacher was also responsible for collecting the participant responses and keeping an identification key, i.e. mapping the learner questionnaires, which only contained a number, with the learner's name.

The researcher was told by the teacher that the learners would not miss anything important by choosing to participate in the questionnaires rather than being in their regular lesson. The questionnaires were conducted in two sessions with 17 learners in one session and 18 learners in the other. The researcher presented himself and the questionnaire, informing the learners that there were 20 questions on the questionnaire and that it would take about 30 minutes to complete it. The learners were told that they could raise their hand if they had any questions during the questionnaire and the researcher would walk around the room answering any questions, but would not guide the learners into answering one thing or the other.

Some learners needed help with definitions of types of games or to figure out what type of game their favorite games were. This seems to indicate that some more work could have been put into making the items on the questionnaire even more clear. The learners were also informed that when they were finished with the questionnaire they would take their

questionnaire sheet to their teacher and the teacher would write down their name and number associated with their specific questionnaire sheet.

3.3.1.2 - Analysis of questionnaires

When analyzing the questionnaires the researcher used descriptive statistics, mostly in the form of *mode*. This means that the data collected from the questionnaires was noted down and tracked which answers occurred the most (Dörnyei, 2007). One set of items from the questionnaire was interesting to look at in mean/median form, this was the items where the participants answered how many days and hours they played video games. This meant that their answers again were noted down and an average of all the answers were confirmed. The specific findings will be discussed in the result section later in this thesis (see Section 4)

3.3.2 - Group Interview

It was decided by the researcher that the best way to get the learner's thoughts and feelings on the topic of gaming and English language learning was to conduct group interviews. The group interviews would help the researcher answer the second research question: “How do EFL learners in 5th grade perceive their own English language learning through video games?”. It was decided by the researcher that doing group interviews would be the best decision for this research although one on one interviews were considered. Group interviews would create a better balance of power between the researcher and the learners, giving them more room to speak their mind (Pinter & Zandian, 2014). Group interviews could also help the learners build upon what other learners said.

One thing that was noted beforehand was to make sure that no learner took up too much space within the group interviews. The researcher would have to be focused and make sure every learner would get an opportunity to talk and be heard. The interviews were planned to be semi structured. This meant that the researcher had a series of planned questions (appendix 2) that they would ask the learners, but that the researcher might ask questions based on the learners responses or ask them to explain their thinking (Dörnyei, 2007). This was done so that if the learners brought up any relevant questions or thoughts, during the group interview, they could be explored. The researcher also added the aspect of visual aids to the group interviews. These visual aids came in the form of pictures from different video games that the learners had mentioned in the questionnaires. The visual aids (appendix 4) were added to help

the learners if they struggle with remembering certain aspects of the games they played, as well as helping them pinpoint exact examples from these games. The pictures used were chosen by the researcher before the group interviews and attempted to incorporate key features from the games where English speaking, reading, listening or hearing were prominent. The pictures were from video games the learners had written on the questionnaires.

3.3.2.1 - Conducting the group interviews

8 learners were selected to take part in the group interviews. They were interviewed in two groups of 4 with each session lasting around 30 minutes. These learners were selected based on their answers from the questionnaires that were conducted three weeks prior to the group interviews.The learners that showed the most insight and interest for video games were chosen for the group interviews, because they were likely to have more information to share and that they would be willing to share. The interviews were conducted in a semi-structured way, meaning that there were a set of 8 questions with different pre planned follow-up questions (Dörnyei, 2007). The prepared questions had been written down in an interview guide (Appendix 2) beforehand. The interview guide first had a written introduction that would be read to the learners at the start of the interview. This introduction presented the researcher, the reasoning for audio recording the group interviews and the learners rights around the audio recordings. Additionally the introduction set some ground rules for the interviews, such as the learners raising their hand showing two fingers if they wanted to comment something based on a learners answer or one finger if they wanted to provide new ideas, as well as their right to leave the group interviews at anytime and that they could return if they had first decided to leave.

There were two audio recording devices used in the interview, the researcher personal phone, using the dictaphone recording app and sending the files to “nettskjema” and an analog audio recorder where the audio files were transferred to a coded protected memory stick. Some of the items of the interview used props, these props were pictures from video games that had come up on the questionnaires, such as Fortnite (Fortnite, 2017), Minecraft (Minecraft, 2011), Roblox (Roblox, 2006), Portal 2 (Portal 2, 2011), Mario Kart (Mario Kart 8, 2014), Sea of Thieves (Sea of Thieves, 2018), FIFA (FIFA 22, 2021) & Fight List (Fight List, 2018). These pictures were placed on the table before the interviews had started and were there to give the learners something to reference in case they had trouble expressing themselves. Additionally

the pictures were used on two specific items of the group interviews, item 5 b and 6. The interviews were done in groups as opposed to one-on-one interviews to help maintain a better balance of power between the learners and the researcher. Some learners could find it quite intimidating to be interviewed on their own, thus making it harder for them to share their opinions and their feelings around the discussed topic. In addition to group interviews, the interviews were also conducted in Norwegian. This was done to help all the learners give their opinions more clearly and to help them take part in the interview (Pinter & Zandian, 2014). During the interviews the researcher asked questions from the interview guide (Appendix 2) and listened to the learners responses, then asked follow up questions where the learners were asked to explain their reasoning or elaborate on what they said. After both interviews were finished they were transcribed by the researcher and analyzed in multiple rounds. The transcription was kept simple and only noted down as close to verbatim as possible, what the learners said.

3.3.2.2 - Analysis of group interviews

The group interviews were recorded on two separate devices. The first step of the analysis was to transcribe the interviews. The interviews were transcribed as close to verbatim as possible. However some parts were left out if it offered little in actual data or was unrelated to the topic of English language learning and video games. Pauses were marked down in the transcription as a way to note that the learner might have been uncertain or looking for the right words. Although the distinction between uncertainty or if the learner was looking for the right word could be hard for the researcher to know. The transcription would then be classified as a partial transcription, one drawback of this could be that the researcher excludes important data early in the process. However, the researcher has the ability to go back and re-examine the data at a later stage in the project.

After the data had been transcribed the researcher used content analysis to work through the data. While content analysis within quantitative data counts word, phrase or grammatical structure usage to find themes and connections in language research. Content analysis within qualitative research has an added dimension because it requires some interpretation on the researchers part (Dörnyei, 2007). Meaning that there will always be some interpretation from the researcher on what the research subjects mean.

The coding process of the analysis started with an initial coding of the qualitative data. The transcribed text from the group interviews were read several times by the researcher and important themes and content was highlighted in different colors (Dörnyei, 2007). Topics that were labeled were language learning, social aspect, motivation. Language learning contained any mention or interpreted mention of writing, speaking, reading, and hearing English. Additionally grammar and vocabulary were also contained within this topic. Social aspect contained every mention or interpred mention of social interactions, cooperation and playing with or against other people. The topic of motivation contained any mention or interpreted mention of learners finding or lacking motivation when playing video games, how learning video games compared to learning in the classroom. Although these were separate topics where the learners statements were sorted into, there were overlaps between different topics, either because the researcher felt the learners statements could be interpreted in multiple ways or because the statement contained mention of multiple topics.

3.4 - Limitations of the methods

Through working with the questionnaire and the group interview a few limitations were made apparent at the end of the work. Given more time and experience on the researchers' part, some of these limitations may have been rectified.

Questionnaires have some drawbacks that might affect their use in this research. Firstly, the learners might not be fully engaged while doing a questionnaire as it could simply be viewed as a test (Iwaniec, 2019). Additionally, questionnaires can be quite monotonous and tedious to answer. However, with the subject of the questionnaire being video games, which one would believe is of interest to many of the learners, it could become more engaging for them and the questionnaire is fairly short. Secondly, as the questionnaire might ask some personal questions, for example how much time the learners spend playing video games. They could be unable or unwilling to answer or answer truthfully, either to themselves or to the researcher. Making sure that the learners know the information they share in the questionnaire will help choose the best participants for the group interviews.

The questionnaires were only piloted with grown ups before the learners were asked to do them. While the group interviews were not piloted beforehand. The reason for there not being any real pilot questionnaires or group interviews beforehand were because the researcher did

not have access to any learners in the right age range to pilot on. Performing a pilot of the questionnaires could have rectified some of the learners needing clarification during the questionnaire. However, as time and access to appropriate learners made it difficult to arrange a pilot of the questionnaire, the researcher was available for the entire questionnaire process to make sure the learners understood the questions and answered sufficiently. While the group interviews could have benefitted from the researcher being more prepared for the interviews as well as some follow-up questions that could have become more clear if the group interviews had been piloted.

The interview process happened in groups of four. While this offered some benefits it also had some drawbacks. Mainly that some learners could have been unwilling to share ideas in a group, but also that some learners could overtake the interview and answer most of the questions, leaving little room for more reluctant learners to answer. To prevent this the researcher often took rounds asking all the learners what they thought.

3.5 - Scientific quality

During the work of this study it has been important to remain aware of the scientific quality of the study. This means that constant thought about its validity, reflexivity and its quality has been done. “Research [...] is a ‘disciplined’ inquiry, and therefore one thing research cannot afford is to be haphazard or lacking rigour” (Dörnyei, 2007, p. 48). Sarah J Tracy (2010, p. 840) outlines in her article eight overarching criteria for good qualitative research. These eight criteria being; worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethical and meaningful coherence. With these eight criteria being used to work towards good scientific quality from the qualitative part of this study. Along with Tracy’s (2010) eight points for qualitative research this chapter will also discuss the validity and reliability of the quantitative parts of this research. As this research covers both qualitative and quantitative data collection and analysis, the scientific quality chapter will present both these aspects.

The first question to answer is if this study covers a worthy topic. “Good qualitative research is relevant, timely, significant, interesting, or evocative” (Tracy, 2010, p. 840). As stated earlier in this paper (see section 2.0) video games have a very large following among young learners. This marks that this study is at least relevant to young learners' interests. With video

games and technology in general also becoming more advanced with time, having sufficient research around the topic will be helpful in the future.

With this study being placed within MMR, rich rigor covers two aspects. Abundance of data for qualitative research and precision of the research for quantitative data (Tracy, 2010). In terms of abundances it has been the view of the researcher that although the dataset is not large it contributes towards further research. Time and access has been a factor for this study, and although this study might not be all encompassing it can be built upon by other researchers. Additionally the scope of the research has been attempted to be held at an achievable level given the factors of time, access and knowledge. The research was more focused upon what the learners perceived as in contrast to what the learners were in reality learning or improving at. When it comes to the precision of the data gathered, the quantitative data has been thoroughly analyzed. There is no doubt that this study's rigor would have been stronger given more time and acknowledging that the researcher's inexperience played a part.

To give this study sincerity. Self-reflexivity and transparency are important topics. There are many sources indicating that you are able to learn English from video games (see section 2.0-2.6). When considering researcher bias for this study it was important to note that no matter what way other theories and studies pointed, that the researcher always felt they learned a lot of their English language skills from video games. This in addition to the fact that this study is a MMR study which contains qualitative data makes it important to note the bias and lay out information on what steps were taken to counteract these biases. Because of these biases and the fact that it would be difficult given the time constraint, it was decided that the study as a whole would not focus on the learners actual English second language abilities but rather their perception of their abilities. Acknowledging these prior biases is an important step towards sincerity and reflexivity. Tracy (2010) defines transparency as honesty about the research process. For this study the researcher has tried to document and inform on all decisions taken during the project as well as explain the reasoning behind these decisions. However, there is again little doubt that due to the researchers inexperience better transparency could have been achieved. For example, by writing detailed field notes while gathering data.

With every qualitative study comes the need for credibility. "Credibility refers to the trustworthiness, verisimilitude, and plausibility of the research finding" (Tracy, 2010, p. 842).

In simple terms, how much you can trust a study to be accurate. This study attempts to gauge how much time 5th grade learners spend playing video games, and also how much English proficiency they believe they get from video games. In quantitative studies credibility is mostly earned from aspects of reliability, replicability, consistency, and accuracy (Tracy, 2010). This study kept its scope within a reasonable achievability as to give the research credibility. By looking at learner perception rather than actual language learning of the learners through video games. The choice of using both qualitative and quantitative methods of data collection was done to help build credibility within the study.

This thesis is situated within the realm of a MMR study. This brings with it some drawbacks. One such drawback with this study is the simple fact that it is an MMR study. While MMR has many benefits (as stated in section 3.1) With it being placed in between a quantitative and qualitative study. This leads it into drawbacks such as Janice Morse states in an interview, cited by Hesse-Biber and Leavy (2006, p. 292), that there is a danger to using mixed methods research as a "substitute for sharp conceptual thinking and insightful analyses". This means that MMR could be considered by a researcher just to acquire more data, not necessarily considering if that data is useful or not. Another challenge with MMR is that the researcher operates with markedly different forms of data analysis, i.e. qualitative data analysis and quantitative data analysis, which requires them to be well versed within both paradigms qualitative data analysis and quantitative data analysis (Hesse-Biber & Leavy, 2006).

When writing this thesis the researcher has tried to achieve resonance through their way of writing and also their choice of topic and methods. Tracy (2010, p. 844) defines resonance as "the researcher's ability to meaningfully reverberate and affect an audience". Work has been put in to present the study as clearly as possible and topics that might be unknown for some readers, for example video games, have been explained when appropriate (see section 4.1).

Whether this study has brought any significant contribution it can at least be noted that there has been little research on the topic beforehand. Additionally considering Klimova & Kacet statements about "a lack of studies on the topic of video games and language learning" and "a lack of knowledge about computer games among language teachers and institutions hinders their proper use" (Klimova & Kacet, 2017, p. 24), which marks this topic as under researched and that further research could benefit from this research.

Tracy's (2010) second to last topic for good scientific quality revolves around ethics. The ethical considerations for this study will be presented fully later (see section 3.6). However, she categorizes ethics in four ways, procedural ethics, situational ethics, relational ethics, and exiting ethics. Procedural ethics refers to "ethical actions dictated as universally necessary by larger organizations, institutions or governing bodies" (Tracy, 2010, p. 847). For this study it can be noted that to gather data on young learners the project had to be approved by SIKT/NSD.

Situational ethics refers to "ethical practices that emerge from a reasoned consideration of a context's specific circumstances" (Tracy, 2010, p. 847). She also notes that the "researcher must repeatedly reflect on, critique, and question their ethical decisions" (Tracy, 2010, p. 847).

Relational ethics refers to the fact that "researchers are mindful of their character, actions, and consequences on others" (Tracy, 2010, p. 847). A few steps were taken to ensure the learners anonymity and to make them comfortable participating in the interviews, such as making group interviews instead of one-on-one interviews.

The final category of ethics presented by Tracy (2010) is exiting ethics. This relates to the fact that "ethical considerations continue beyond the data collection phase to how researchers leave the scene and share the results"(Tracy, 2010, p. 847). She also notes that researchers have little control over how their work will be read, understood, and used, but the researcher has the ability to present their work in the best possible light (Tracy, 2010). As this paper is written as a Master thesis it will be shared with the university. Additionally the teacher of the learners who participated in this study will receive a copy of the thesis to read.

Tracy (2010, p. 848) notes meaningful coherence as the final component of qualitative research quality. She defines this with four points: "(a) achieve their stated purpose; (b) accomplish what they espouse to be about; (c) use methods and representation practices that partner well with espoused theories and paradigms; and (d) attentively interconnect literature reviews with research foci, methods, and findings". As for this study methods were chosen to fit with the research questions and the learners. Additionally this thesis keeps towards its topic of answering how much time learners spend playing video games, what games they play and how they perceive their language learning in those games.

On the quantitative side of the research Dörnyei (2007, p. 50) presents three main parts; reliability, measurement validity, and research validity. Reliability refers to consistencies of data (Dörnyei, 2007, p. 50). Given that the quantitative part of this study asks the learners about their own habits, it would be doubtful that the questionnaire would give the exact same dataset if data had been gathered from another group after the first. However, as the data often seem to line up with other research, such as Mediatilsynet's (2020) report, it could be assumed that other learner groups might offer much of the same data as this one.

Measurement validity can be defined by Bachman's (2004, pp. 259–260) four key points.

> "Validity is a quality of the interpretations and not of the test or the test scores.", "Perfect validity can never be proven - the best we can do is provide evidence that our validity argument is more plausible than other potential competing interpretations.", "Validity is specific to a particular situation and is not automatically transferable to others.", and "Validity is a unitary concept that can be supported with many different types of evidence."

For this study to strive towards strong measurement validity, the interpretations of the learners' answers are very important. The researcher will have to connect the learner's thoughts with theory and research to be able to present their interpretations with as much validity as possible.

The final quantitative part of scientific quality will be research validity. Dörnyei (2007, p. 52) marks this as a broader topic than measurement validity, where research validity concerns the quality of the whole research project. Dörnyei (2007) notes that in quantitative research, "research validity is demonstrated by ruling out, or providing evidence against, various "threats" to validity" (Dörnyei, 2007, p. 53). This concerns "unintended factors, circumstances, flaws or events that can invalidate the results" (Dörnyei, 2007, p. 53). As this study keeps its scope relatively narrow, it could be easier to not become affected by events that invalidate the results. However, it was important that the data collection was well planned to keep harder for unanticipated circumstances or flaws to affect the study.

3.6 - Ethical Considerations

The subjects for this study are young learners. Because of this fact it was required to involve the parents of these learners when asking for consent to gather data from these learners. The learners were given a consent form (Appendix 3) that they and their parents would have to sign. The parents were informed that the learners would be partaking in a questionnaire and that some of the learners would be selected for a group interview. They were also informed that the group interviews would be audio recorded so that the learners' words would be properly represented in the final paper (Dörnyei, 2007). The consent forms that were given to the learners and their parents gave information about the researcher and how to contact them in the event that there were questions about the study. One parent contacted the researcher and asked to see the questionnaire and interview guide. The researcher gave the parent a copy of these items. Parent involvement was something that was thought about and considered early in this study.

The data that was gathered from the questionnaires and the group interviews were only viewed by the researcher and when not in use was in a locked box or on a coded memory stick. To make the questionnaires anonymous each questionnaire had an assigned number and when they were handed out the learners were instructed not to write their names. Their teacher then had the ability to identify them based on the numbers. Additionally this was done to have a more random selection for the group interviews. When the learners are referred to in this study they will be referred to as learner E1-E8 if they were in the group interview and any reference to the questionnaire will simply be referred to as "one or some learner(s)". Any sensitive information that might come from the learners during the questionnaire or group interviews will be omitted from the final paper.

When waiting for the learners and their guardians to respond with the consent forms, one parent contacted the researcher and asked to see the questionnaire and interview guide, before allowing their child to participate. The questionnaire (appendix 1) and the group interview guide (appendix 2) were shared with the parent.

Another ethical consideration for this study is the fact that the learners selected for the research is a previous practice class of the researcher. This could possibly influence the data, in the case that the learners were trying to give responses that they thought the researcher

would be looking for. The researcher pointed out to the learners both before the questionnaire and the group interviews that there were no correct answers to the questions and that the researcher was only interested in what they had to say.

4.0 - Results

This result chapter will present the results gathered from both the questionnaires and the group interviews and will be divided into two corresponding sections. The results will help answer the research questions; “How often do learners in the 5th grade play video games and what types of games help them develop their language skills?” and “How do EFL learners in the 5th grade perceive their own English language learning through video games?”. In the chapter following this one the results will be discussed and analyzed. Additionally this chapter will explain some common terms related to video games and explain the video games mentioned by the learners. A brief section on the visual aids used during the group interviews will also be presented during this chapter.

4.1 - Explaining terms

Before presenting the results from the questionnaires this section will explain some of the words and items described by the learners during the group interviews and the questionnaires. A short explanation of the games the learners mention and any relevant information from and about those games, so that the reader of this paper can understand what the video games contain and what the learners view as important for their learning.

Four games were mentioned by the majority of the learners. These were Minecraft (Minecraft, 2011), Roblox (Roblox, 2006), FIFA (FIFA 22, 2021) and Fortnite (Fortnite, 2017). Minecraft (Minecraft 2017) is a sandbox and crafting game. “Sandbox” meaning that the game itself sets few goals for the player and encourages the player to set their own goals. The game focuses on crafting and exploration and the players are able to build items to help them defeat enemies. The player is also able to construct their own homes in whatever way

they want. Minecraft can be played alone or on private servers with friends or on public servers with people online. Roblox (Roblox, 2006) is less of a game and more of a gaming platform. Roblox (Roblox, 2006) gives its users the ability to create their own games and lets people play those community created games. Roblox (Roblox, 2006) has a built-in chat where people are able to write and talk to each other while playing. FIFA (FIFA 22, 2021) is a game that simulates football matches. Players can take the role of a single player on the field or control a whole football team. FIFA (FIFA 22, 2021) has an online aspect where you are able to play against or with other people. Fortnite (Fortnite, 2017) is a multiplayer “battle royal” game. A “battle royal” game is centered around the concept of being the last person or team standing at the end of the game. In Fortnite (Fortnite, 2017) 100 people are placed on an island and have to shoot each other to win. Fortnite (Fortnite, 2017) also has an element of creation within it. Players can build constructions that they can use to their advantage in fights. The game can be played alone or in groups of up to four players. The game also has a built-in voice chat where players can communicate when playing together.

Some games were not mentioned by many learners in the questionnaire, but became relevant in the group interviews or in the discussion. God of War: Ragnarok (God of War: Ragnarok, 2022) was one such game. In this game you play as two characters and fight your way through a world based on norse mythology. The game has a focus on characters, story and combat. Another game that came up was The Legend of Zelda: Breath of the Wild (The Legend of Zelda: Breath of the Wild, 2017). An adventure game where you play a character that has to traverse a landscape and find treasure, weapons, and items..

4.1.1 - Pictures

A number of pictures were used during the group interviews to give the learners an opportunity to point to specific elements within their games where they saw English language learning. These pictures were found by the researcher online and would be difficult to cite properly, thus these pictures have been omitted completely from this paper and a description of the pictures will be given instead (appendix 4).

4.2 - Questionnaires

The information presented in this subchapter was gathered from a questionnaire (appendix 1) administered to 35 learners. The questionnaires gathered quantitative data and a few items of qualitative data. From the questionnaire a lot of interesting data was gathered that could help answer the first and second research question: 'How often do learners in the 5th grade play video games and what types of games help them develop their language skills?' & 'How do EFL learners in the 5th grade perceive their own English language learning through video games?'

The learners were asked in the questionnaire (appendix 1) what language they used at home. No indication was given as to how much the language had to be used for the learners to answer, and the learners were able to answer more than one language.

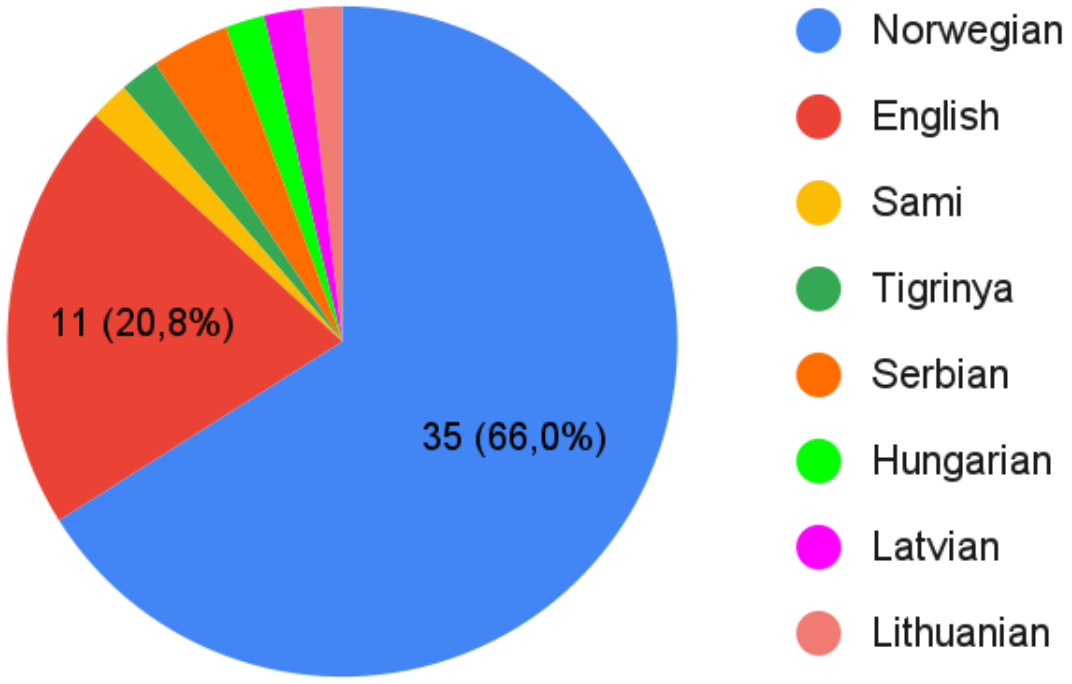

Fig 4.2.1: What language the learners said they spoke at home

The data showed that 20,8% of the learners stated that they used English at home. However this says nothing about how much they use it or in what scenarios they use it. Question 5 on the questionnaire touches on a similar topic, asking if they used English outside of school. This allows for the option of using English with friends, but not at home.

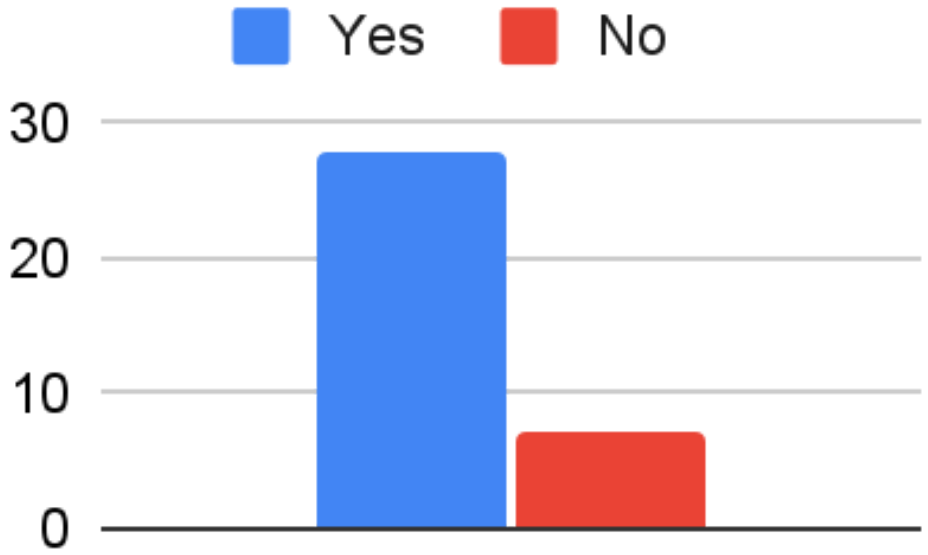

Fig 4.2.2: How many learners said they spoke English outside of school.

Here we can see that the number of learners who said they used English outside of school increased from the learners who said they used English at home. With 80% saying they used English outside of school compared to 20,8% who said they used it at home.

Question two in the questionnaire tried to gather data about the learners view on the English subject. They were asked to choose a symbol that best represented their own feelings about the subject. 22 out of 35 learners rated the English subject as good, while 11 had a neutral stance and 1 learner rated it as bad. 1 learner had an undefined answer (crossed out all options). Meaning that most of the learners prompted had a positive view of the English subject and that only one learner had an outright negative view of the subject. This would amount to 62% of the learners having a positive view of the English subject.

When the learners were asked if they played video games in English on the questionnaire, all 35 learners answered that they played video games in English. Meaning that they all had been exposed to the English language through video games.

On the subject of time used on video games the learners were asked two questions (item 8 & 9).

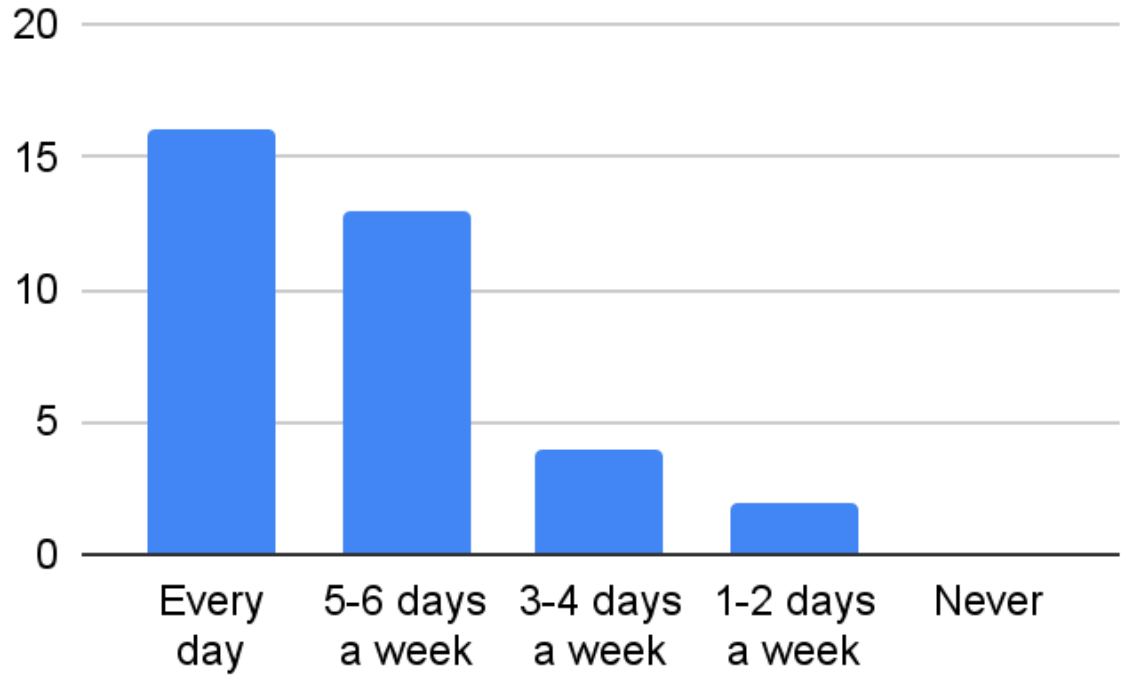

Fig 4.2.3: How many days a week do the learners play video games

Most learners said they played either every day or 5-6 days a week. None of the learners said they never played. The learners were also asked how many hours they spent playing video games each day.

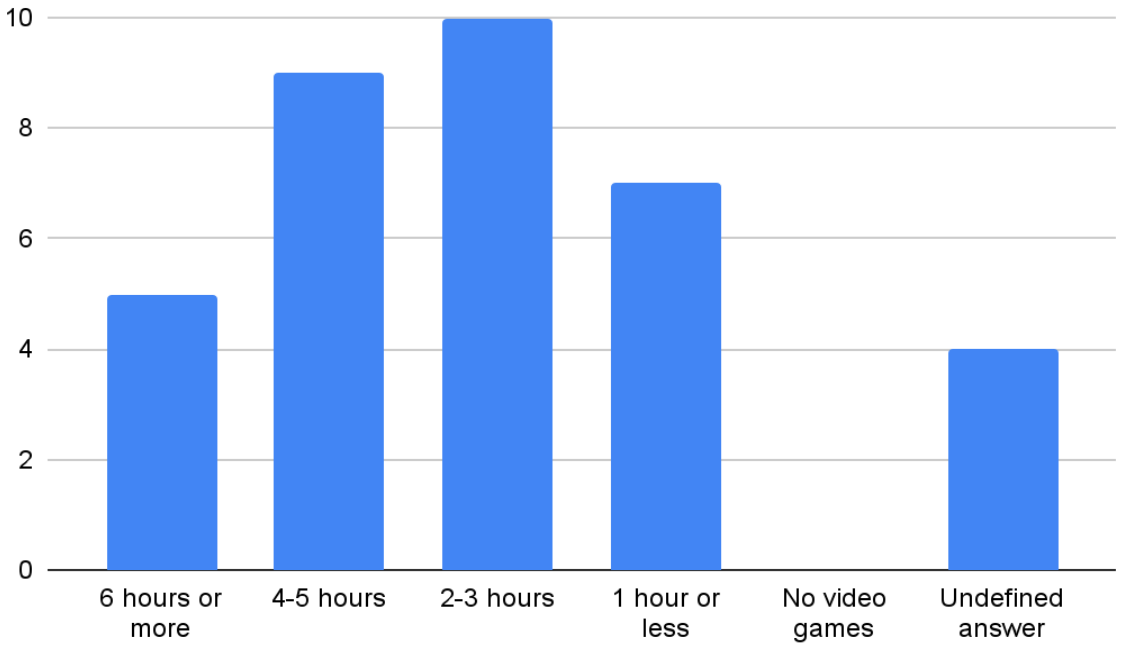

Fig 4.2.4: How many hours the learners' play each day

While some learners said they played 6 hours or more most learners fell into the middle categories of playing 4-5 hours, 2-3 hours or 1 hour or less. Some learners also struggled with answering, either crossing out more than one option or choosing none of the options, putting them into the undefined answers category. Both of these questions led to the consideration that many of the learners had ample opportunity to engage with the English language in video games.

The learners were also asked who they tend to play with when playing video games. This could potentially be helpful in figuring out if any learners took more knowledge away from video games depending on who they play with.

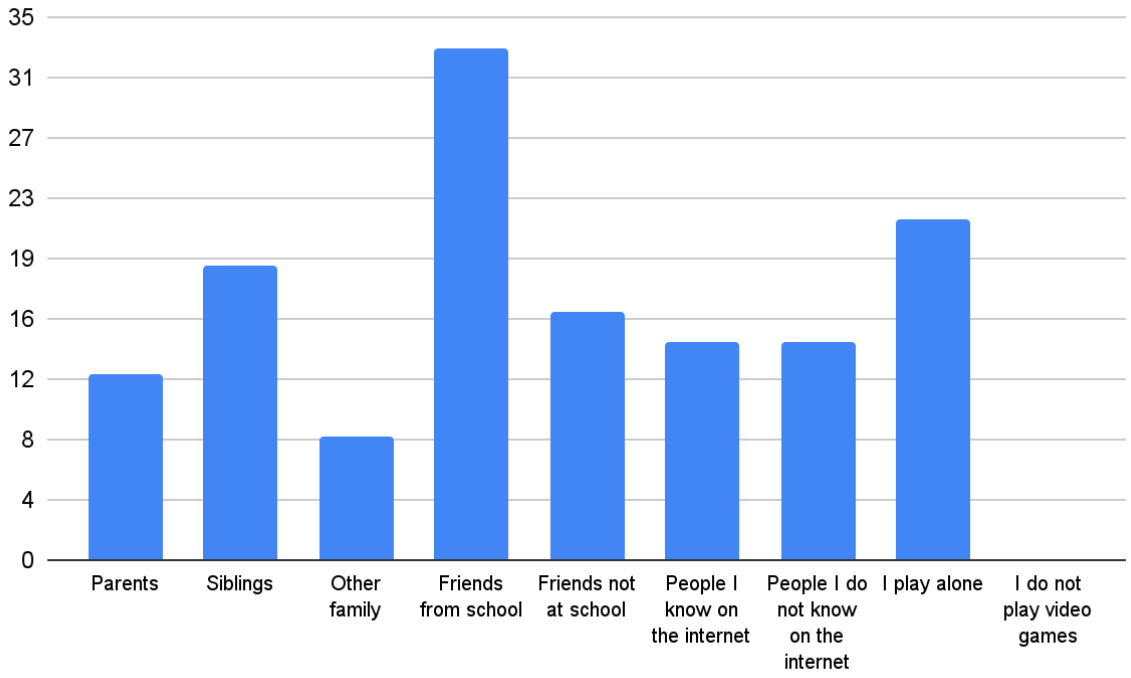

Fig 4.2.6: Who the learners play video games with

Showing that many of the learners played with friends from their school, but that there were also many other examples of people they played with. Additionally some learners may have answered many different people they played with and others answered few. Many learners also played alone.

As the first research question attempts to figure out what types of games are important for the learners and how they help them learn, the learners were asked about what platform they play

their video games on, as well as what kind of games they prefer.

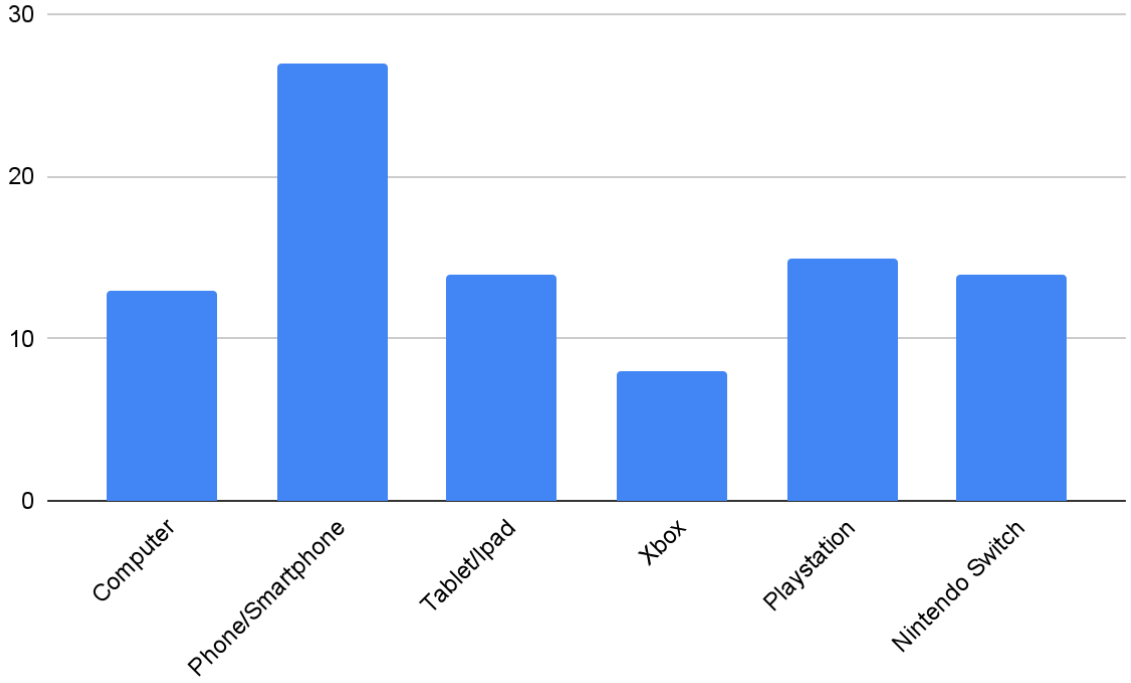

Fig 4.2.7: Platforms the learners used

Most learners played on their phones or smartphones while the other options presented an even distribution. All of these platforms have the option of cooperative play and online communication. Xbox and Playstation requires a TV and are stationary platforms. Phones and tablets are wireless, transportable options. Nintendo Switch and computers are hybrid options.

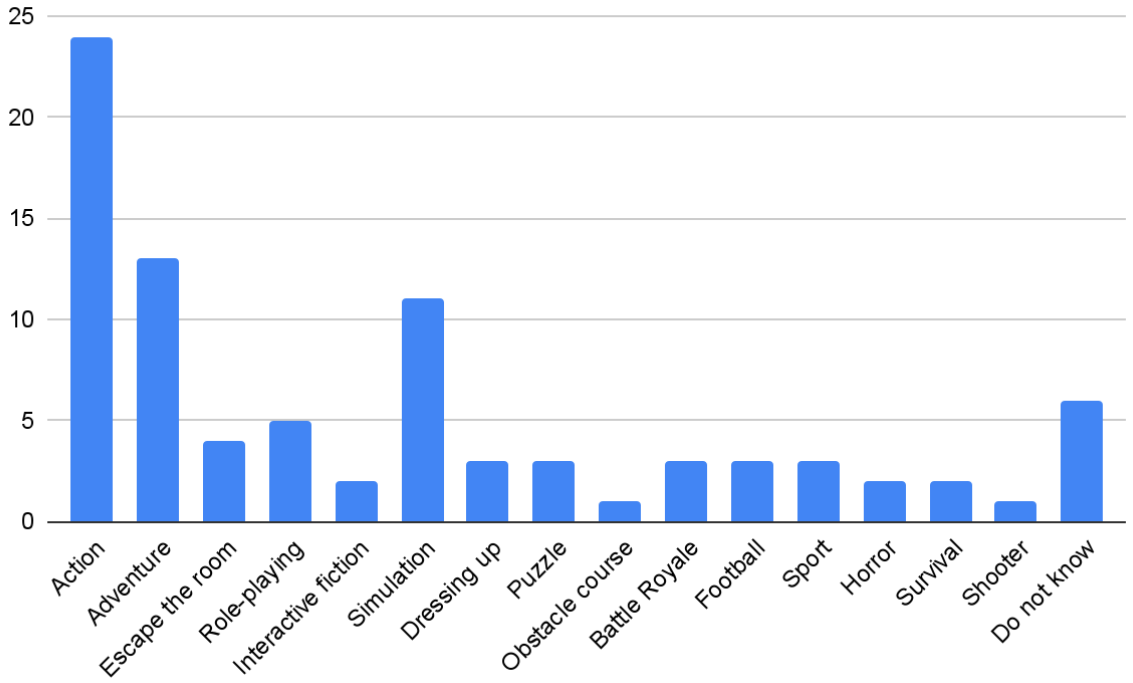

Fig 4.2.8: What genre of games the learners played

The most common game type the learners said they played was action, adventure and simulation games (see Fig 4.2.8). The rest of the options had a somewhat even distribution. Obstacle course, battle royale, football, sport, horror, survival and shooter were all options not given to them on the questionnaire, but were found under the ‘other’ option each learner was presented with where they could write down their own answer. Some learners were also unsure what type of games they played. When creating the questionnaire, the decision was made not to add examples of each genre to avoid influencing the learners' answers. However, it could perhaps have made a difference to the results.

The most common games the learners engaged with were Minecraft (Minecraft, 2011), Roblox, Fortnite, FIFA (FIFA 22, 2021) and Mario Kart (Mario Kart 8, 2014). 27 other games were mentioned but only Call of Duty (Call of Duty Modern Warfare 2, 2009) showed up more than once on the collected questionnaires (see Fig 4.2.9).

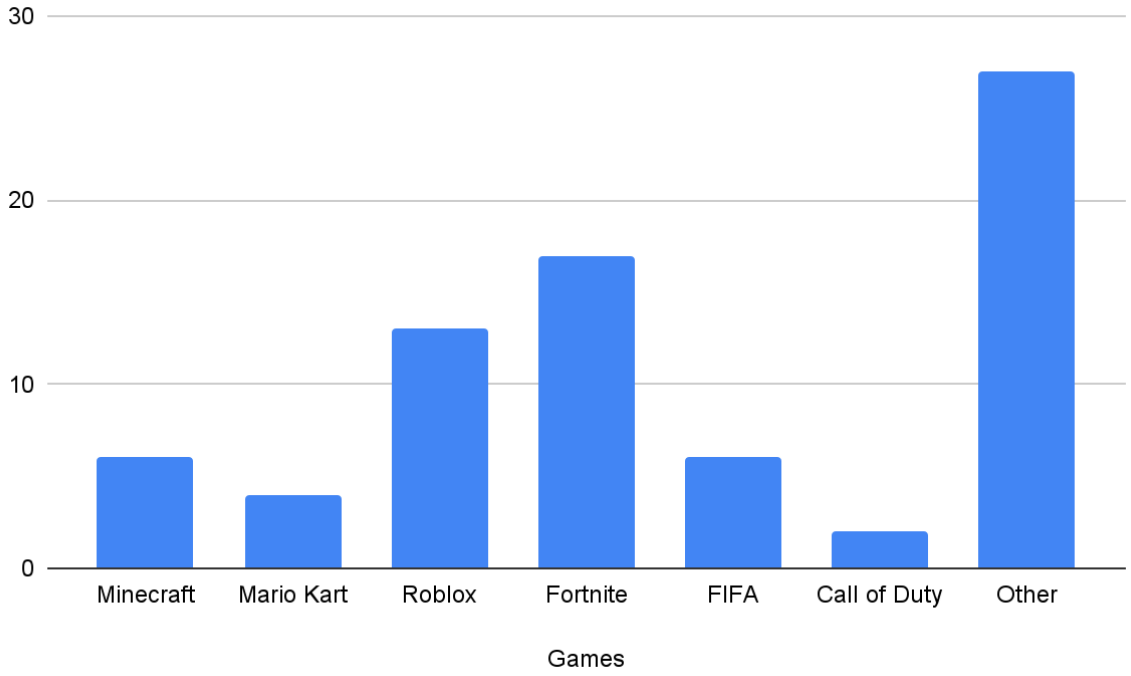

Fig 4.2.9: The learners' preferred video games

This gives an indication of what games the learners engaged with, but also showed that there was a vast variation in games outside of the 'big games' that the learners were playing. This information was also used to narrow down the visual aids (appendix 4) used in the group interviews.

Five questions from the questionnaire were focused on when choosing participants for the group interviews. Since the aim of this study is to examine learner awareness of English learning through video games, it was considered necessary that the interviewees used English while playing video games, and believed that they could learn something. By interviewing the ones who believed that they could learn from video games, they would be given the opportunity to explain and elaborate.

The first of which question 17 (appendix 1) was whether the learners felt they learned English from video games.

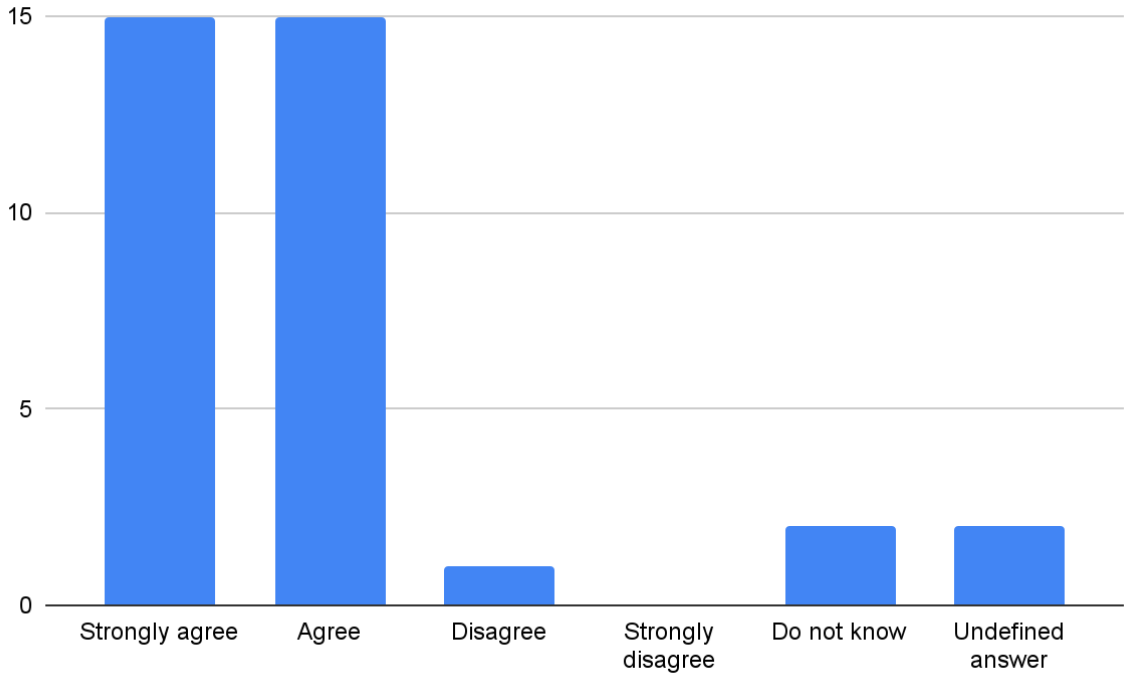

Fig 4.2.10: Learner responses on if they felt they learned English from video games

The graph indicates that almost all the learners either agreed or strongly agreed that they learned English from video games, however one learner disagreed and two learners were unsure. There were also two learners who gave undefined answers (crossed of more than one option).

The second question that weighed more importantly was question 16 (appendix 1), which asked how they used English with other people when playing video games. This was done to see if they actively used the language while playing by speaking or writing.

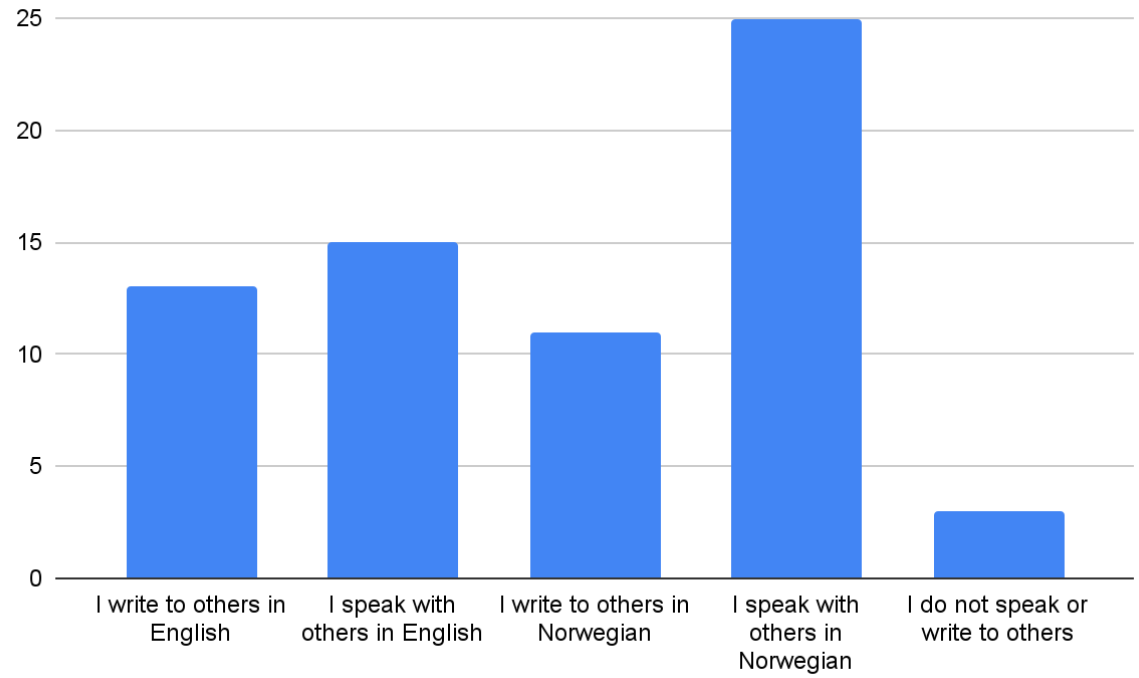

Fig 4.2.11: If and how the learners spoke Norwegian and English while playing video games

Some of the learners said they spoke or wrote to others in English, but Norwegian seemed to be the more prevalent choice of language among the learners. Additionally some learners said they did not engage in communication while playing video games. However, this question also made it possible for the learners to overlap their answers, i.e. some learners might have said they wrote and spoke English and Norwegian.

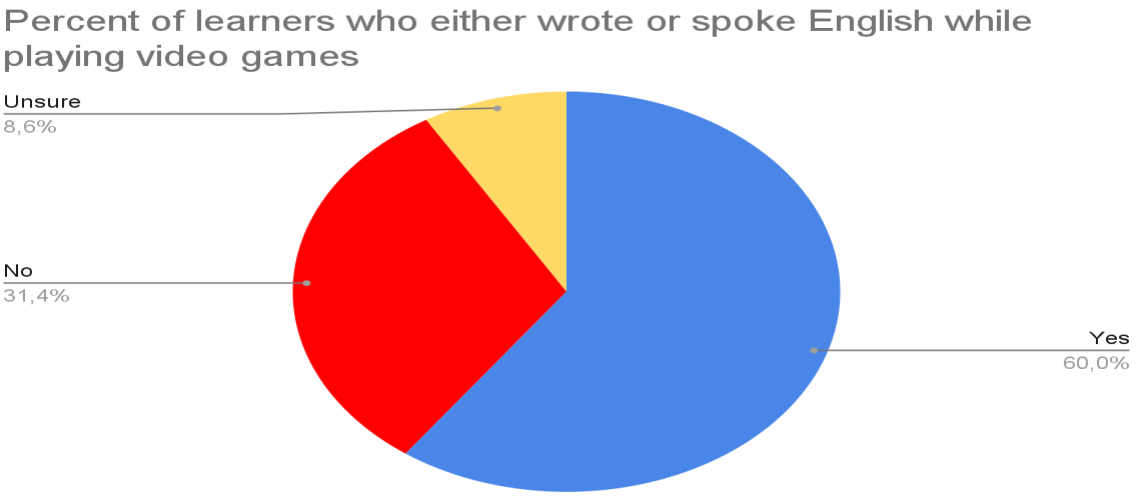

Fig 4.2.12: Percentage of learners who either wrote or spoke English while playing video games

Even though Norwegian was the most frequent choice, Fig 4.2.12 shows that 60% of the learners either spoke or wrote English while playing video games.

The learners were also asked which English language skills they thought one could improve by playing video games and what skills they felt that they themselves had improved in the English language by playing video games. Fig 4.2.13 shows how they believe a person could improve with the help of video games.

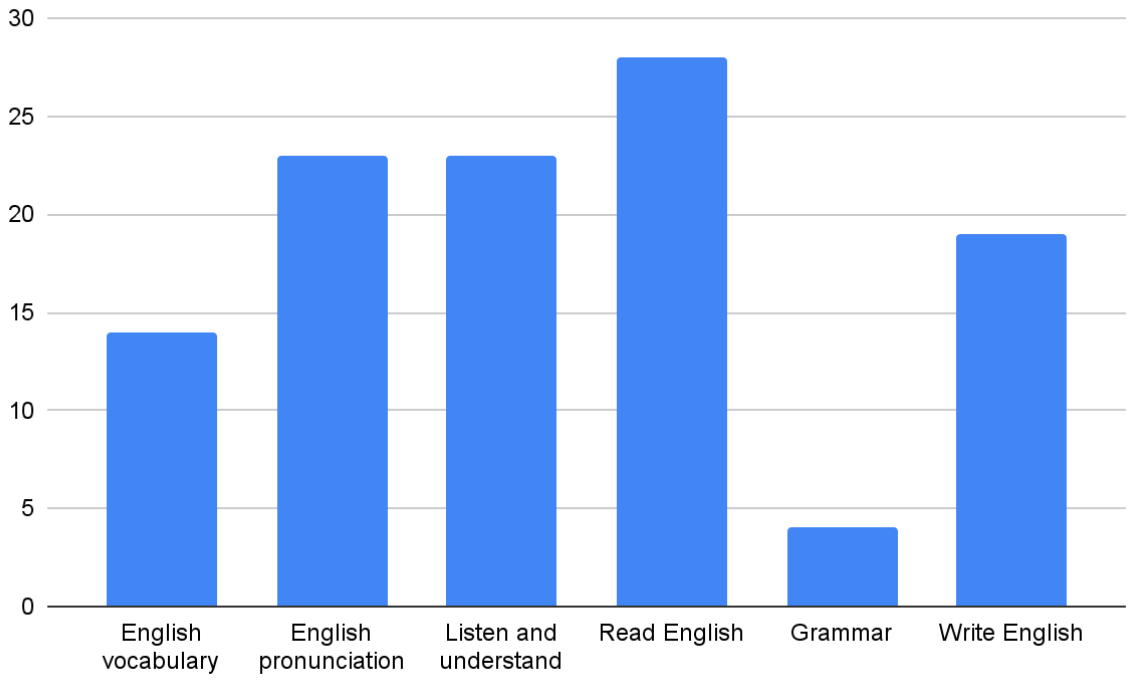

Fig 4.2.13: What the learner believed someone could improve at with the help of video games

While Fig 4.2.14 shows how they believe they themselves have improved by learning English through video games.

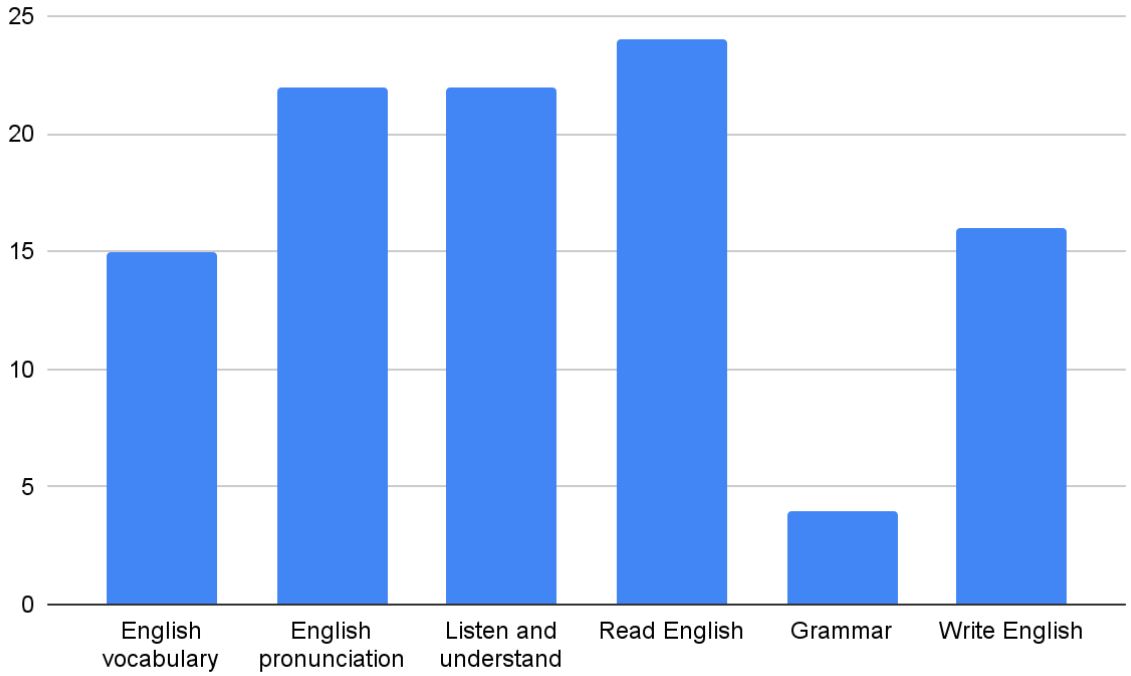

Fig 4.2.14: What the learners thought they could improve at with the help of video games

These figures show that more learners thought other people could improve at reading than learners that thought they improved at reading themselves. More learners also thought that other people could improve at writing, while fewer thought they themselves had improved at writing. 15 learners felt they had improved in vocabulary, while only 14 learners thought other people could improve at vocabulary. Additionally the learners were asked if there was anything outside the English language that they felt they had learned.

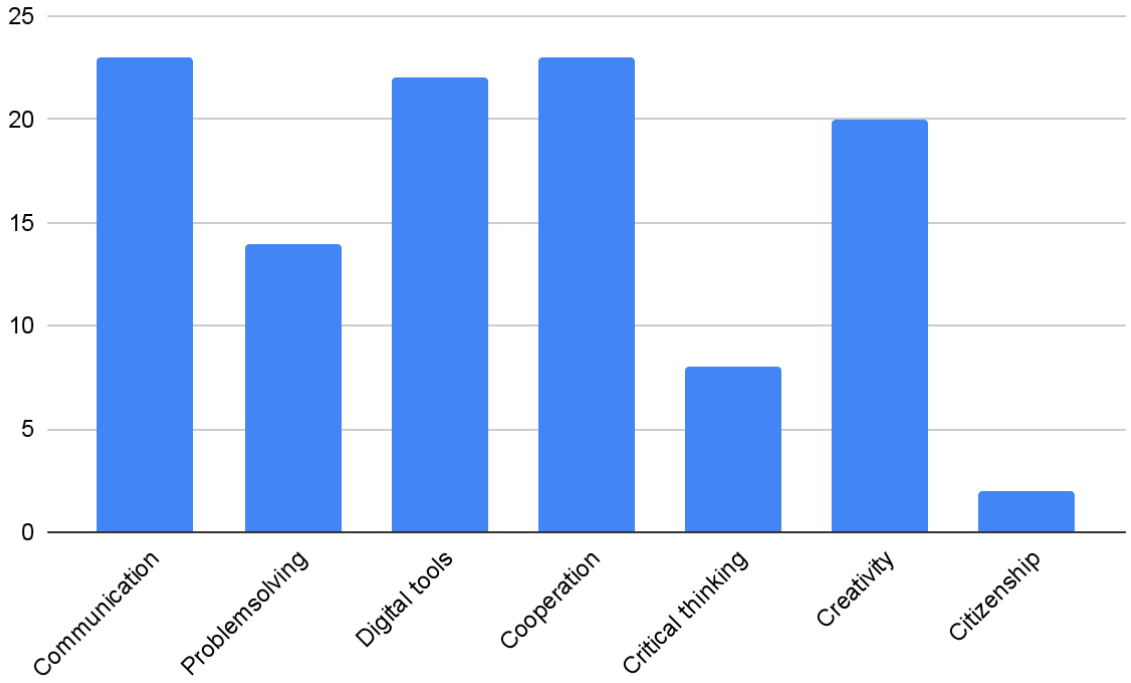

Fig 4.2.15: Things not related to language that the learners thought they could improve at with the help of video games

Fig 4.2.15 above indicates that many learners also saw other potentially beneficial aspects of playing video games. Such as becoming more proficient with digital tools, creativity, communicating, and cooperation. Communication, digital tools, cooperation, and creativity had been answered by 20 or more learners. This means that over 50% of the learners thought that these elements could be learned from video games.

4.3 -Group Interviews

The information presented in this subchapter was gathered from two group interviews. There were four learners in each group interview and each interview lasted roughly 30 minutes. During this chapter these learners will be referred to as E1-E8 and the researcher will be referred to as R. Additionally the group interviews will be presented here in English, translated by the researcher. The group interviews presented a lot of information about what games the learners played and what they did when interacting with those games. There was also a lot of information about their perceived learning when playing games. When asked what types of games they played the learners answered football games like FIFA (FIFA 22, 2021), action games like Fortnite (Fortnite 2017) and sandbox games, like Minecraft

(Minecraft, 2011) and Roblox Roblox, 2006), one learner also mentioned a puzzle game named Portal 2.

Table 4.3.1: Individual learner responses to the question ‘What types of video games do you like to play?’

E1:	Football.
E2:	E2: [...] Roblox and Fortnite.
E3:	E3: I like Minecraft and Roblox
E4	E4: I only play Roblox
E6	E6: I play FIFA quite often, and I play Fortnite some times.
E5	E5: I often like action and sports games.
E8	E8: I like to play Roblox and Minecraft
E7	E7: I also like Roblox and Minecraft

The games presented in table 4.3.1 represents a small selection of the games that were mentioned in the questionnaires, but it covers the games that were most frequently mentioned in the questionnaires. The learners were asked what they thought about playing video games in general. The first interview group answered unanimously that they enjoyed playing video games (Table 4.3.2.1).

Table 4.3.2.1: Individual learner responses to the question ‘What do you think of playing video games in general?’

E1	Fun
E3	Very fun
E2	Super fun
E4	Way to fun

The second interview group was somewhat in agreement with the first group, but also posed the importance of not playing too much (Table 4.3.2.2).

Table 4.3.2.2: Individual learner responses to the question ‘What do you think of playing video games in general?’

E6	I think it is quite good. But it is also if you are playing too much. It is not smart to play too much
E7	It is fun, but [I agree with E6]
E8	It is very fun, but I have a set amount of screen time…and when time is up I can’t play anymore.
E5	I think.. You don’t need to play all day, because it gets boring, but sometimes in the morning and a bit at night [...]

These two questions were the first ones posed to them, they were asked as ice breaker questions to get the interviews started and the learners comfortable with answering. Additionally the questions could help give some insight and answer the first research question of what types of games the learners were engaging with. As a follow up question the learners were asked why they thought it was fun to play games. The learners gave very varied responses to this question. One learner noted that they felt it was easy to build in games like Minecraft (Minecraft, 2011) and Roblox (Roblox, 2006).

Table 4.3.3.1: One learners response when asked why they thought it was fun to play video games

E3	It is simple to build in Minecraft, some games make it easy to build things. Roblox also.

Another learner noted that they enjoyed playing competitive games against other people. A second learner agreed with this statement

Table 4.3.3.2: One learners response when asked why they thought it was fun to play video games

E4	I like PVP (Player vs. Player) games.
R	Okay, so you like to compete against others?
E4	Yes
E3	Me too

A learner in the second group interview answered that they felt it was fun to take up the role of a real football player, when playing FIFA (FIFA 22, 2021).

Table 4.3.3.3: One learners response when asked why they thought it was fun to play video games

E6	I think it is fun [to play video games] because [...] you roleplay as a football player

One learner said that video games helped them keep their thoughts off other more stressful subjects.

Table 4.3.3.4: One learners response when asked why they thought it was fun to play video games

E5	I think it [games] are fun since [I do not think about other things], you only think about the game.

Another learner had multiple points to make when prompted with this question. They noted Minecraft (Minecraft, 2011) helped them think creatively and that Portal 2 (Portal 2, 2011)required them to think.

Table 4.3.3.5: One learners response when asked why they thought it was fun to play video games

E7	I feel Minecraft is full of creativity [...] and Portal 2 is a thinking game.

A few of the learners also noted social aspects as an important factor in their enjoyment of playing video games.

Table 4.3.3.6: Individual learner responses when asked why they thought it was fun to play video games

E8	We can get friends in Roblox and play with them.
E7	[...] Roblox is “friendstuff” and fun to play [...]
E5	[...] you can play with friends.

Two learners did not offer any reasoning behind why they enjoyed playing video games. However, many of the learners offered reasoning showing some thought process around their own enjoyment and awareness.

The learners were also asked about their feelings in relation to video games. This was done to see if they had any perceived knowledge about their own emotions when playing video games. Both interview groups were asked the same question: What emotions do you feel

when playing video games. When the first interview group was posed this question they were hesitant to answer, which prompted the researcher to offer some examples, such as happiness, anger or curiosity. Additionally only two learners from the first interview group answered the question. The learners from both groups offered thoughts about their emotions while playing video games, most of which centered around having fun or being annoyed or angry.

Table 4.3.4.1: Individual learner responses when asked what feelings they felt when playing video games

E2	I can become irritated if I die often.
E3	I can become irritated if I play “Boga Boga” and fall into the void.
E6	Eh..Fun.
E5	I sometimes become very angry if I lose. I punch the wall and throw things.
E7	Eh..Same as E5, but not as much.
E8	Happiness and sometimes anger.
E5	You could also be scared [...]. Suddenly for example someone comes up behind you and starts shooting at you.
E6	You could be shocked if something just comes up or scores a good goal.

The second interview group was prompted by the researcher if they ever felt curious when playing video games, this was done because they were reluctant to answer the question and the researcher felt they had more to share. Since one of the interview groups was prompted with this when they found it difficult to answer the original question, the two interviews diverged somewhat on this question.

Table 4.3.4.2 Individual learner responses when asked ‘[...] are you ever curious when playing video games?’

E8	Mhm
E6	Curious about different tricks [referring to a game mechanic in FIFA] you can do.
E7	Yes, curious

Additionally, since the second interview group interacted more with the question regarding their emotions, the researcher decided to ask further about this topic. The researcher then

asked the second interview group why they thought they felt these feelings while playing video games.

Table 4.3.4.3 Individual learner responses when asked ‘Why do you think you feel happiness/anger from playing games?’

E6	Because it is fun to progress in a game. [Referring to happiness]
E5	For example in Fortnite, if you win, then you have done that together [with others]. [Referring to happiness]
E7	Because it is fun and you learn a bit [Referring to happiness]
E8	You can for example play with friends also. [...] if I can’t do something and then my friend does it, I become happy for her. [Referring to happiness]
E5	Because we lose [Referring to anger]

The second interview group seemed to have a lot of thoughts around their emotions and its connection with playing video games. Although not related to English language learning, it could mean that the learners are learning something about themselves and their emotions while playing video games.

The researcher moved on to the next topic for the group interviews, which were the learners' preferences of playing video games alone or with other people. The learners were posed the question: ‘Do you prefer to play alone or with other people?’. All the learners unanimously agreed that they preferred playing with others. Which gave the researcher the opportunity to ask them why they preferred it.

Table 4.3.5.1 Individual learner responses when asked: ‘Why do you prefer to play with others?

E1	[...] it is more fun to play with friends than all alone
E3	Because the day before yesterday I was called a good friend
E5	Then you can talk to people [...]
E6	Same as E5 said.
E8	[...] because then I can be a bit more social instead of [playing] with people I don’t know [...]

The researcher then asked the learners who they usually played with when playing with other people.

Table 4.3.5.2 Individual learner responses when asked: ‘Who do you usually play with when playing with other people?’

E1	People in class or people you know
E2	People that we for example don’t know or [people we meet online] or people in class [...]
E3	I play with people I don’t know at all.
E4	[...] I only play with two different people [...]. Someone I don’t know.
E2	I play with someone from Saudi-Arabia and China.
E3	I know a Spanish person.
E4	I met a person from Czechia.
E6	Friends and [people] I meet that are nice in games [...].
E7	[Same as E6]
E5	If you play Fortnite for example, then you can play squad with three other people. You can talk to them if they talk. Some people are not that kind though.
E7	I play with people from class on Roblox and a few different people on Minecraft that I don’t know that are quite nice.

The learners all seem to agree that they enjoy playing with other people because of the social aspect of it. Other people came in the form of friends from class or friends outside class and people they had met online. There was no question or strong indication from the learners how close they were to these people they had met online. The researcher felt that the learners who said they played with people online viewed this as somewhat of an accomplishment, and felt proud to know people from different countries.

The learners were asked how they communicated with the people they played with. The researcher was trying to find out if they used speaking or writing as a form of communication while playing video games and if they were speaking English or their mother-tongue when doing so.

Table 4.3.6 Individual learner responses when asked: ‘How do you communicate with other players?’

E1	I speak English if I am talking with anyone. [I use my headset and microphone]

E4	[I write in English].
E8	I write in the chat in Roblox [in English].
E7	I also write in the chat in Roblox [in English]
E6	Sometimes [I speak a little bit of a mix between Norwegian and English when speaking with friends or family]

Five out of eight learners from the group interviews said they used some form of English communication while playing video games. Three of them said they wrote English while the other two said they spoke English. One of the learners who said they spoke English said it was a mix between Norwegian and English. The learner who said they did a mix of English and Norwegian said this came in the form of exchanging words that were more familiar to them in English. Meaning words specific to playing video games or a certain game. The research also noticed that several learners did this during the group interviews when trying to explain a video game. Such as talking about attributes of football players in FIFA (FIFA 22, 2021) using words like defending, pace, dribbling, etc.

The learners were asked if they felt they learned more English by playing with others or alone. Answers from this question could help answer the second research question: “How do EFL learners in 5th grade perceive their own English language learning through video games?”. Seven of the eight learners that were interviewed felt they learned more English when playing with others, while the last learner felt there was little difference between playing with other people or alone. The learners were asked some follow up questions to this, asking them to explain what kind of English they learned while playing with other people and what kind of English they learned while playing alone.

Table 4.3.7.1 Individual learner responses when asked ‘what kind of English do you learn when playing with other people?’

E3	Reading and writing
E1	Eh..Talking?
E4	Talking
E2	I learn talking and writing
E7	[...] for example [in] Roblox there is a lot of English. I think most people who play Roblox are English

E5	Yes, like here [points to picture 8] “Wanna be friends?”. Then you have to write in English
E8	There is a chat in Roblox where everybody writes English

Although most of the learners felt they learned more while playing with others they also noted times where they saw learning when playing alone. Talking and writing, productive communication skills were most prevalent in the learners’ answers. Four out of eight learners or 50% mentioned writing and three of eight learners mentioned talking.

Table 4.3.7.2 Individual learner responses when asked ‘What kind of English do you learn when playing alone?’

E5	[...] for example Fortnite. There are these quests, then you have to read and understand.
E6	In FIFA also they talk a lot and there is a lot of writing.
E5	Yes, the [commentator] speaks English.
E7	In Minecraft there are settings that you have to read.
E1	When you are doing tasks, and they are in English. Quests that you need to read, then you learn a bit more.

When asked about what they learned when playing alone the learners mentioned more receptive skills than when asked what they learned when playing with others. Listening was mentioned by two learners. Reading was also answered by four learners.

The learners were asked if they felt any improvement within specific aspects of the English language. The prompted types of English were reading, writing, listening and speaking. This would be a very central question to help answer the second research question of this study: “How do EFL learners in 5th grade perceive their own English language learning through video games?”. The question gives the researcher an opportunity to see if they think they are learning and in what aspects of English they find learning.

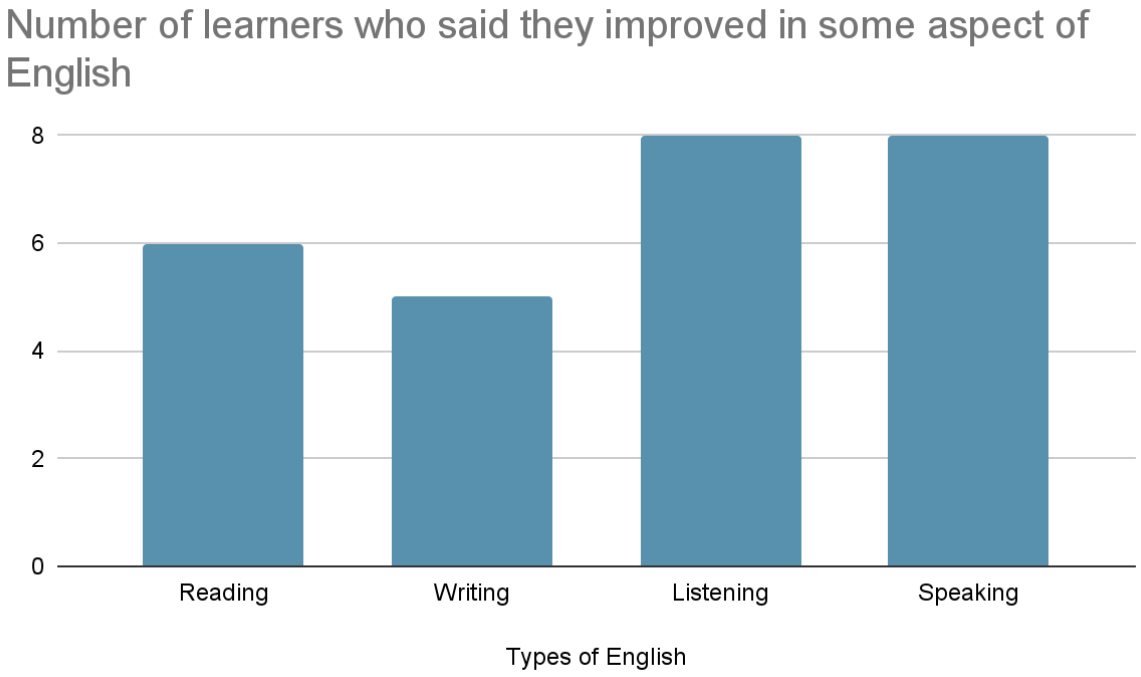

Fig 4.3.1: Number of learners who said they improved in some aspect of English

Meaning that the learners saw some learning from playing video games in these specific aspects of English language learning.

The learners were asked to point at a few examples where they used English while playing video games. To help them do this the researcher had prepared photos from the games the learners had mentioned in the questionnaires (appendix 1).

Table 4.3.8 Individual learner responses when asked 'Where in these games do you learn English?'

E4	Everywhere
E1	[Pointing at picture 12] here you have commentators who talk. I probably learn from these cards [Pointing to picture 10] with pace and such.
E2	I learn when I am in a fill game. [There are people who talk]
E3	Chat. When I play on a Minecraft server. In the bottom corner there is a lot of text that I read. [I also learn from the] death screen. It says you died by creeper.
E4	[In Roblox] I [learn] from the chat and sometimes from the walls and stuff. [I read and write in the chat]. There is secret text on the walls that I read.
E5	Here [pointing at picture 11] you can see that it is classic or league, where the team comes from. [Pointing to picture 10] Here you see attack, defending, and you can read their names.
E6	In Fortnite you can see [Pointing to picture 1] play, battlepass, compete, locker, item shop

	and vbucks.
E7	Yes, here [pointing to picture 6] if you want to see the effects of armor then it says it in English and here [pointing to picture 5] just like in your inventory you can have different blocks with names that are in English.
E8	We see here [pointing to picture 4] that we can write in the chat and become friends with people we don't know. Also we can see the names of other people and they might be in English.
E5	In FIFA you can say [English numbers].

The learners managed to give some examples of specific elements from games that helped them learn English. These examples were primarily linked to the reading skill, however, writing was also mentioned by some learners. Additionally some learners also pointed to specific words that they knew from these games, pointing out they had learned vocabulary from the video games.

Towards the end of the interviews the learners were asked if they felt there was any difference between learning English language from video games and learning English language at school.

Table 4.3.9 Individual learner response when asked 'do you think there is any difference between learning English at school and learning English from video games?'

E3	Yes. [The game] just says it straight out and it does not expect me to learn something, but then I learn it. [...] It is a lot better than just telling me to pay attention all the time.
E2	I learn more from games. I learn almost nothing at school. I only learn from video games
E1	Yes, same. [...] I think we know kind of everything, because we have played games, and I have learned English at home also.
E4	I think there is no difference.
E7	Yes, there is a huge difference
E6	I feel I learn more from playing video games. [...] I have at least heard that those who play video games become smarter
E8	It would be fun to learn that way in school.
E5	You learn in two different ways. When gaming you learn how to say and write the word. When you learn in school you learn double consonants and verbs and such in English. it is two different [types of] English.
E5	I guess we learn more from video games because you think it is fun also. Then you want to learn more, when you have fun. While at school you only sit there and you become bored.

E7	I agree [with E5].
E5	At school you often sit alone and learn, but in games you can speak with other people. And then everyone speaks English, then it does not feel so weird to speak English.
E8	I agree [with E5 and feeling weird speaking English in class]
E5	[...] also in Minecraft you learn how things become other things. For example how glass becomes glass.
E7	And cakes also. You need sugar, milk and wheat.

The learners presented several examples of differences or preferences between learning English in school and video games. Although one learner felt there was no difference. Six learners thought there was a difference between video games and school. Six learners thought they learned more from video games. E5 pointed to the fact that their motivation was not the same, because video games were more fun. E5 also pointed out feel less anxiety from speaking English when playing video games.

5 - Discussion

This chapter will discuss theory, previous research and the results and how it relates to the research questions; “how often do learners in the 5th grade play video games and what types of games help them develop their language skills?” & “how do EFL learners in the 5th grade perceive their own English language learning through video games?” This chapter will be divided into two sub-chapters with each sub-chapter focusing on one research question.

The main objective of this study was to see if learners in the 5th grade viewed their own video game habits as beneficial and if they did in what way did they find it beneficial. It would also be interesting to see if the learners disagreed with this and thought their video gaming habits were a hindrance to their English language learning and if so in what way. The questionnaires offered a broad overview of the 35 learners and their habits with video games, such as how often they played video games, what types of games they played, who they played with, and what language they used when playing. The group interviews gave the researcher an opportunity to ask 8 learners more in depth questions about their view on learning English through video games.

Overall the 8 learners from the group interviews seemed to have a few thoughts around their own language learning from video games, such as developing their ability to read, write, speak and listen, as well as offering greater motivation to learn, social development and other knowledge outside the scope of the English language. Four important themes came to light from the interviews; the learners' view of social aspects of playing video games, increased motivation from playing video games, reduced anxiety when using English in video games and video games' impact on the learners vocabulary.

5.1 - Learners' gaming habits and opportunities for language learning

When investigating how often learners in the 5th grade played video games there were two key items from this project, the questions from the questionnaire that asked the learners about their video game habits. How many days a week they played video games and how many hours each day. In the theory section of this project a report by Medietilsynet (2020) was presented, that study reported that 96% of Norwegian boys aged 9-18 played video games and 76% of Norwegian girls in the same age range played video games. While this project did not account for gender the data showed that 100% of the learners that answered the questionnaires played video games during a given week in various amounts. This means that this study collected somewhat similar data as that which represents the whole country in 2020, however, slightly more learners from this study claimed to play video games. One reason that this project might have shown a higher percentage of learners playing video games than the report made by Medietilsynet, could be because the learners were all aware of what type of questionnaire they would be partaking in, and the learners who already enjoyed video games might have been more eager to participate. It could be assumed that some of the learners who chose not to participate, did not ever play video games, which would have considerably affected the percentages of this study had they all participated.

Given that all the learners said they played video games during the week it could be possible that they all engage with the English language in some way while doing so. It was somewhat strange that only 20, 8% of the learners said they used the English language at home. While another question asked the learners if they used the language outside of school. On this question 80% of the learners said they used English outside of school. Fig 4.2.12 showed that 60% of the learners either wrote or spoke English when playing video games. Indicating that at least 60% of the learners were using English when playing video games, this is without

accounting for the learners who read or listened when playing video games. One reason that there is such a disparity between the percentage of learners who claimed to use the language outside of school and at home could be that the learners assume that at home meant using the language with their family, while outside of school is a more general statement that the learners could attribute to using the language with friends or while playing video games.

The study by Butler, Someya, and Fukuhara (2014) noted that children who played video games regularly improved their English proficiency, but that this was not visible in the schools English tests. This could indicate that the learners from this project might spend time playing video games and learn English by doing so, but it does not necessarily mean they perform better in their English subject in school. This could indicate that if learners learn English from video games, they are not acquiring the same skills that schools are looking for or trying to train. Additionally this would mean that any relevant aims from the curriculum do not occur in video games. It could be considered that while the learners might not be able to perform better on tests from playing video games, they might be improving in other factors that are harder to test in school, such as social development, democracy and citizenship, and creativity.

Some of the learners noted during the group interviews that they felt there was a big difference between learning English from video games and learning English at school. E5 noted that they felt less anxiety when speaking English in video games compared to at school. E5 also indicated that he felt that learning English at school had more structure, while learning English with video games had more opportunity to use the language.

5.1.1 - What types of games do they play and help them develop their language skills?

Using and being exposed to the target language is beneficial when developing language skills (Klimova & Kacet, 2017). The questionnaire showed that 60% of the learners participating used the English language actively, by either speaking or writing. 40% did not or were unsure about whether they produced the language themselves. However, these questions did not take into account the receptive skills: listening and reading. We can see that the learners have opportunities to acquire and develop English language skills due to usage and exposure. The

learners indicated through their answers that while playing with others they learned more active skills, such as speaking and writing. However, when playing alone they learned reading and listening. This could indicate that different types of games have the ability to improve different skills.

When asking the learners what types of games they played there were a lot of different answers. The most common answers were action, adventure, simulation and role-playing games. Additionally 6 learners noted that they did not know what types of games they played. The most mentioned games by the learners in the questionnaire were Fortnite (Fortnite, 2017), Roblox (Roblox, 2006), Minecraft (Minecraft, 2011) and FIFA (FIFA 22, 2021). In some ways these answers correspond together, having simulation and action games being mentioned they could be connected to FIFA (FIFA 22, 2021) and Fortnite respectively. However Survival was only mentioned by two learners and no learner mentioned “sandbox” as a type of game they played.

Adventure is a somewhat broad term when describing video games and many of the games that were mentioned by only one learner could fit into this genre, games like God of War: Ragnarok (God of War: Ragnarok, 2022), The Legend of Zelda: Breath of the Wild (The Legend of Zelda: Breath of the Wild, 2017), Assassins Creed: Valhalla (Assassins Creed: Valhalla, 2020), which were all mentioned in the questionnaires would fit into the category of adventure games. Showing that outside the most popular games there are other games that could also hold the potential for language learning. One could argue that Minecraft (Minecraft, 2011) could also be considered an adventure game. The role-playing genre features most heavily in Roblox (Roblox, 2006), Minecraft (Minecraft, 2011) and FIFA (FIFA 22, 2021), three of the most common games mentioned by the learners in the questionnaires.

One of Hubbard’s (1991) key points to what makes games helpful for language learning was that the aim of the game could not be to learn language. The games mentioned by the learners in both the questionnaires and the group interviews are all games created for entertainment with little aim of actual language learning. This indicates that the games the learners are engaging with could be considered helpful language learning tools. Hubbard (1991) also notes that the game would have to lead the learner to become an engaged and cooperative player. This could be done through elements such as problem-solving, competition, timing,

and scoring. These elements fit into many of the games mentioned by the learners. God of War:Ragnarok (God of War: Ragnarok, 2022), Minecraft (Minecraft, 2011), The Legend of Zelda: Breath of the Wild (The Legend of Zelda: Breath of the Wild, 2017), Roblox (Roblox, 2006) and Fortnite (Fortnite, 2017) all offer opportunities for problem solving, either through puzzles crafted by the developer in God of War: Ragnarok (God of War: Ragnarok, 2022) and The Legend of Zelda: Breath of the Wild (The Legend of Zelda: Breath of the Wild, 2017), or through self discovered problems by the player in games like Minecraft and Roblox (Roblox, 2006), or problems created by opposing players in Fortnite (Fortnite, 2017). Competition and scoring is at the front and center of games such as Fortnite (Fortnite, 2017) and FIFA (FIFA 22, 2021). Competitive games can also be connected with behaviorism, as Pavey (2021) noted that reinforcement could come on a social level with scoreboards and leaderboards. Scoreboard being an important feature in FIFA (FIFA 22, 2021), and Fortnite (Fortnite, 2017) presenting leaderboards of the best players. Competitive games were mentioned by the learners as something they enjoyed, possibly giving the learners extra motivation. However, Hubbard (1991) noted that these elements are also present in tests, meaning that they in themselves do not lead to cooperative engagement. Newer research has looked at more modern genres in video games and found a few common factors that can facilitate language learning. Genres like simulation (Cooke-Plagwitz, 2013; Jauregi et al., 2011; Miller & Hegelheimer, 2006; Ranalli, 2008), Massively multiplayer online role-playing (MMORPG) (Rama et al., 2012; Suh et al., 2010; Thorne, 2008), adventure (Chen & Yang, 2013), and music (DeHaan et al., 2010) offer a few common factors that were meaningful to language learning. Those factors being high intrinsic motivation, facilitating a positive learning attitude in learners, contain rich textual input that requires engagement from the learners to complete activities and tasks in the game, reduce learning anxiety which may increase the use of the target language (Chen & Hsu, 2020). FIFA (FIFA 22, 2021) fits into the genre of simulation games, which was a game many of the learners claimed to be playing. While games like Minecraft (Minecraft, 2011), Roblox (Roblox, 2006), God of War: Ragnarok (God of War: Ragnarok, 2022) and The Legend of Zelda: Breath of the Wild (The Legend of Zelda: Breath of the Wild, 2017) fit into the genre of adventure games. Music and MMORPG had little representation within the participants of this study, although an argument could be made that Fortnite, while not an MMORPG, has many players playing with and against each other at the same time. However, elements such as ‘chatboxes’ where the players write to other players is a smaller element than in classic MMORPGs, such as World of Warcraft (World of Warcraft, 2004) or Everquest (Everquest, 1999), but rather has a higher focus on quick

communication such as ‘voice chat’. It could be assumed that the learners might have had little understanding of how to label the games they played as these terms might not be commonly used to describe the games by the learners themselves. Additionally all the terms were presented in English, which might make some learners unfamiliar with them. A game like Roblox (Roblox, 2006), which many learners claimed to be playing, can also be difficult to define as it fits into different genres depending on what type of “game mode” the learners interact with. The learners were asked if they played video games in English and all 35 learners claimed that they did. 13 learners claimed they wrote with other people in English while playing video games while 15 claimed they talked with other people in English.

The learners also offered some insight into who they played games with as well as where they played games. The most common answer from the questionnaire was that the learners played games with friends from school, siblings or that they played alone. Other examples the learners gave were playing with parents, other family members, friends from other schools and people they either knew or did not know on the internet. As some learners sometimes played with other people, either friends, family or strangers. Their habits of playing with others can be connected with Butler (2022). Her study claimed that learners could benefit from digital tools, but two factors were important. One of those factors was the importance of meaningful interaction with others, specifically adults and digital agents (Butler, 2022). It is possible that the learners who play with others gain more language knowledge than those who only play alone, or do not play at all. This thinking can also be backed up by sociocultural learning theories and the zone of proximal development. While family members were mentioned by the learners in the questionnaire, the learners from the group interviews rarely mentioned family members as people they played with, rather mentioning friends or strangers online.

Many learners answered that they played on their phones, while computers, tablets, xbox, playstation and Nintendo Switch ranged between 8 to 13 learners. Even though phones were the most common place for the learners to play video games, the games that were most frequently mentioned were games played on either computers, Playstation or Xbox. The learners were not restricted to only one answer on these questions on the questionnaire and so many of the examples may be from the same learners. The learners who said they played alone may also have selected other options as they may sometimes play with others and sometimes play alone and likewise with where the learners chose to play games. During the

interviews the topic of platform to play video games rarely came up and seemed unimportant to the learners, however, few questions in the interview guide were aimed towards this and little research on the topic was relevant for this study. This might be something that could be relevant in further research.

Sundqvist (2009) found that extramural activities impacted the learners vocabulary much more than it did their oral skills. However Sundqvist did not have a sole focus on video games. Extramural activities like TV, music, movies, reading may offer plenty of opportunities to improve vocabulary, reading skills, and understanding, but they offer less opportunity to actually speak the language. Table 4.3.8 indicates that the learners saw many possibilities for learning when prompted with pictures. They saw learning in vocabulary, pointing out words that they had learned from those games. Listening to the game speak English was also mentioned. From the group interviews many of the learners claimed they played games with other people and spoke English with them, meaning that they were given and took opportunities to speak the language. Additionally, one learner said that video games gave them a simpler way to use the language because it felt more normal to do so, compared to classrooms. It could also be assumed that the same learner would have found it difficult or strange to start a conversation in English when doing something other than playing video games. However, only 15 of 35 learners from the questionnaire believed they could expand their vocabulary by playing video games. This might mean that the learners who were interviewed saw potential learning, but that might not be true for all or most learners.

5.2 - Learner perceptions of language learning through games

To answer the second research question: “How do EFL learners in the 5th grade perceive their own English language learning through video games?” The most important data came from the group interviews. However, a few items from the questionnaires weighted heavily which learners were chosen for the interviews and will be relevant for this subchapter as well. One strong indicator of the best learners to interview came from the item on the questionnaire asking the learners if they felt they learned English from video games 15 learners said they strongly agreed with that statement and 15 said they agreed. One learner disagreed, while 4 learners were unsure or gave undefined answers. Already here we can see that many of the learners feel they are learning English from video games. We can draw lines between these findings and the benefits given by Klimova & Kacet (2017), who found that there were four

benefits for computer games in language learning. Two of the benefits they mention could be connected to the learners' opinions that they learned from video games: “exposure to the target language” and “computer-aided language learning technologies will continue to be developed and may enhance learners’ involvement in communication”. Both of these benefits are connected to the idea that video games give the learners opportunities to engage with the language.

The learners were asked on the questionnaires what they specifically felt one could learn and what they themselves felt they had learned from video games. Most learners felt that one could improve at reading English by playing video games, and many also felt that one could improve in writing, listening and understanding, pronunciation and vocabulary. Again we can look to Klimova & Kacet (2017) benefits to connect the learners' answers with previous research. “Improvement of skills, structures and vocabulary in particular”. According to Sundqvist’s study, learners who engaged with active extramural activities, for example video games, had a greater impact on their oral and vocabulary skills than more passive activities, such as television or music. This is in line with what the learners commented in the group interviews. Many of the elements the learners felt they learned English from came in situations where they had to be actively engaged, either in conversation with other people or by reading to understand what to do next. A theory could be that the learners are learning active skills, such as speaking and writing when playing with others, but when playing alone they will not have as many opportunities to speak or write. However, single player video games might give more opportunities to listen and understand English, and also more opportunities for reading English.

A few learners also felt one could improve one's grammar from video games. This also indicates that the learners saw some form of learning from video games. Although some learners answered that they felt one could improve at grammar in the questionnaire, this was a topic that rarely came up during the group interviews. The learners mentioned a few times that they read or write in chat boxes with other people, but never mentioned it as improving at grammar, but rather improving at writing. The learners might have felt they improved at grammar, but the researcher interpreted it more as they felt they improved at pragmatics, i.e the meaning behind what they read and wrote. This seems to be in line with previous research and theory as grammar is rarely mentioned. A reason for a possible lack of grammar

development could be because of the structural necessity of grammar and that video games as a leisure activity might often lack those structures.

When asked where they themselves felt they had improved they responded in much the same way as what they thought other people could improve at. Most learners felt they had improved in reading, listening and understanding, and pronunciation. Additionally some felt they had improved in vocabulary and writing, and a few learners also claimed they had improved their grammar. The learners show some insight here into their own learning through video games. No learner claimed they had not improved at anything.

Additionally the learners were asked if they learned anything that was outside the immediate scope of the English language. Many learners claimed they had learned about communication, digital tools, cooperation and creativity. Some learners also noted problem-solving as something they had learned. These answers could be connected to the different learning theories. Specifically sociocultural learning theories such as social constructivism, where the learners in cooperation with others gain new skills and knowledge. As Pavey (2021, p. 7) stated “They make choices according to their past experience, observation and reflection, prediction with abstract thought and by testing out possible solutions that may not always be right”. This might be close to what learner E7 meant when they claimed Portal 2 (Portal 2, 2011) was a “thinking game”. They could be referring to trial and error as a way of solving problems and reflecting on mistakes and successes and taking these experiences with them as they proceed in the game.

A few learners claimed they learned critical thinking and citizenship from playing video games. Indicating that they believe they learn things that are not directly linked to language learning. The questionnaires, however, do not ask the learners to elaborate upon their perceived learning and there is a possibility that the learners felt pressured to at least cross out one of the options and this leads this project into the group interviews. The group interviews were done to let the researcher dig deeper into some of the learner's thoughts around the subject. The learners from the group interviews elaborated upon using video games to learn. Two learners pointed out Roblox’s (Roblox, 2006) chat function as where they had to write English. They felt that they became better at writing English when playing Roblox (Roblox, 2006) as people often wrote to them and they then had to answer them. We can see this from their answers in Table 4.3.7.1. A few of the learners also added that people spoke to them

using voice chat in games like Fortnite (Fortnite, 2017), and that they themselves would then have to speak English and that this trained their pronunciation and speaking skills, as well as broadening their vocabulary. Just by the fact that the games that they play are multiplayer games with functions like chat boxes or voice chat the learners are encouraged to use their writing, speaking and listening skills to help them play the game. Additionally, they could also be practicing their creativity, in Tables 4.3.3.5, 4.3.3.1, and 4.3.9 we can see the learners talking about creativity and creating things.

The learners from the group interview were asked what kind of English they learned when playing with other people. Reading, writing and talking were all terms brought up by the learners. Elements like grammar, listening and understanding came up as answers from the questionnaires.

The learners noted several differences between learning English from video games and learning English from school work. In broad strokes the fact that the learners made this point highlights the validity of Sundqvist & Sylén's (2016) work with EE and that the learners see a difference between learning on their own and learning at school is an interesting observation of this study. For example one learner noted that they were not expected to learn something when playing video games, which points to the element of learner autonomy. This relates heavily to Sundqvist and Sylén's (2016) model (see section 2.4), their model shows that EE activities happen within learner-initiated English activities and away from the classroom. Placing the learner's thoughts about not being expected to learn something while playing video games in the upper right corner of Sundqvist and Sylén's model. The learner was not trying to reach a goal set by somebody else, but rather played for fun and in the process felt they absorbed some information. Whether the learner was aware of this at the time of playing or if they became aware of this when prompted is uncertain. Another learner noted that they thought they learned more from video games because they were fun, indicating that motivation could be a key factor to learning through video games. Connecting this with Sundqvist and Sylén's definition of intrinsic motivation, which was presented in 2.5. That learners "initiate an activity for its own sake, simply because they want to experience pleasure or satisfaction" (Sundqvist & Sylvén, 2016)

Motivation was often brought up by the learners in the group interviews. Many of them felt it was easier to be motivated when there was no tangent pressure placed upon them on learning the language. As Gardner and Lambert (1959) stated it was their opinion that the motivation to learn a second language should be the same as when learning their first language. Video games often present a brand new world for the learners, meaning that for them to understand this new world they will have to understand the language used in it. Through understanding of the language they can become fully immersed in the video game world and this can be an important motivation for some learners

Another topic that was brought up by the learners was the social aspect of playing games and using English. They felt that at school you often sit alone and learn, while when playing games you were able to speak to other people. This again connects the learners and their use of video games to sociocultural learning theories where the learners feel they learn more when engaging with other people. Additionally the learner also noted that it felt more natural to speak English when playing video games as opposed to speaking English in the classroom. Both pointing to social aspects of learning English through gaming, and also role-playing as a way to learn. There was however one learner who disagreed with the others and said that there was no difference between learning from video games and in school.

5.3 - Limitations of the study

During the course of the project a few limitations made themselves clear to the researcher. The first one of which being the pool of learners the researcher could gather data from. The project has 35 learners in total and while those learners give some insight into their video game habits and their thoughts surrounding video games and English language learning, it is in no way an expansive selection. Given more time more learners could have been asked to participate in questionnaires and group interviews, which would have given more data.

Piloting the questionnaires and the group interviews would have helped make the questions clearer and could also have given the researcher ideas for other questions. For example, it became clear when transcribing and analyzing the group interviews that there were several opportunities to ask follow up questions to the learners, which could have prompted them to speak more in depth about what they thought around the topic.

6.0 - Conclusion

The goal of this project was to examine how much time learners spent playing video games, what types of games they played and if they perceived any learning from playing those video games. By using MMR as a method for this research, having a questionnaire and group interviews, a lot of interesting data has been gathered. The questionnaire gave a lot of information about the learners' video game habits. Showing that all of the participants played video games and that many of them did so for a fair amount of time and on many days of the week. Their exposure to video games seem to fill up a fair amount of their time, and with that their exposure to English might fill a similar amount of their time.

The video games the learners claimed to be playing were often simulation, adventure, and action games. Two of these genres had previous theory and research related to their effect on language learning, simulation (Cooke-Plagwitz, 2013; Jauregi et al., 2011; Miller & Hegelheimer, 2006; Ranalli, 2008) and adventure (Chen & Yang, 2013).

The learners' perception on their own learning came through in the questionnaire and group interviews. The learners felt that they learned to listen to, speak, read, and write English, and they also pointed out that their vocabulary improved. Pointing out examples from video games where they had learned new words. The learners also saw benefits to their social development from playing video games, they could speak with people from all around the world as well as their friends. Some learners even claimed to often speak English with their friends who they normally would speak Norwegian with. Reduced anxiety was also something the learners brought up. One learner claimed that it felt strange to speak English in the classroom, as they usually spoke Norwegian there, but when playing video games speaking English felt more natural. The last important topic the learners brought up was the motivation around playing video games. The learners seemed to indicate that they felt a stronger motivation for playing video games and that it might help them be more willing to learn English as opposed to sitting at school and learning English in a more traditional way. The learners spoke a lot about having fun while playing video games, giving a strong indication to the motivational boost video games can bring.

This study can be built upon by others in further research. Some examples include, learners actual language learning in cooperation with video games, learners choice of platform and its

connection to language learning. This research could also be used to increase teachers current knowledge about young language learners and their video game habits, as well as increasing teachers' knowledge about video games and perhaps help them incorporate video games into the classroom in a way that the learners find engaging and motivating.

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Appendix 1 - Questionnaire

Takk for at du tar tid til å svare på denne spørreundersøkelsen. Grunnen til at jeg har bedt deg om å svare på disse spørsmålene er fordi jeg lurer på hvor mye tid unge gutter og jenter bruker på dataspill, hvilke type spill dere spiller og om dere lærer noe engelsk av å spille spill.

Spørreskjema

1. Hvilke språk bruker du hjemme?

   _____

   _____

   _____

   _____

2. Hva synes du om engelskfaget? sett ring rundt smileyen som du føler passer deg best

3. Hva liker du med Engelskfaget? (Skriv svaret ditt i boksen under)

4. Hva liker du ikke med engelskfaget? (Skriv svaret ditt i boksen under)

5. Bruker du engelsk utenfor skolen?
   - ☐ Ja
   - ☐ Nei

6. Spiller du dataspill på engelsk?
   - ☐ Ja
   - ☐ Nei

7. Hvem spiller du med når du spiller dataspill? (Det er lov å krysse av flere av svarene)
   - ☐ Foreldre
   - ☐ Søsken
   - ☐ Andre i familien
   - ☐ Venner fra skolen
   - ☐ Venner som går på andre skoler
   - ☐ Folk jeg kjenner på internett
   - ☐ Folk jeg ikke kjenner på internett
   - ☐ Jeg spiller spill alene
   - ☐ Jeg spiller ikke dataspill
   - ☐ Andre:_____ (Her kan du skrive inn et eget svar hvis ingen av de over passer)

8. Hvor ofte spiller du dataspill? (Velg et svar)
   - ☐ Hver dag
   - ☐ 5 - 6 dager i uken
   - ☐ 3 - 4 dager i uken

- ☐ 1- 2 dager i uken
- ☐ Aldri

9. Hvor mange timer bruker du på dataspill på en dag? (Velg et svar)
   - ☐ 6 timer eller mer
   - ☐ 4 - 5 timer
   - ☐ 2 - 3 timer
   - ☐ 1 time eller mindre
   - ☐ Spiller ikke dataspill

10. Hvis du spiller dataspill, hvilke dataspill spiller du? (Skriv svaret ditt i boksen under)

11. Hvor spiller du dataspill? (Det er lov å krysse av flere av svarene)

- ☐ Datamaskin
- ☐ Telefon/Smartphone
- ☐ Tablet/Ipad
- ☐ Xbox
- ☐ Playstation
- ☐ Nintendo Switch
- ☐ Andre:_____

12. Hvilke type dataspill spiller du? (det er lov å krysse av flere av svarene)

- ☐ Action
- ☐ Adventure
- ☐ Escape the room
- ☐ Role-playing
- ☐ Interactive fiction
- ☐ Simulation
- ☐ Dressing up
- ☐ Puzzle
- ☐ Vet ikke
- ☐ Andre:_____

13. Hva er ditt favorittspill?

_____

_____

_____

14. Hva er de tre beste tingene med ditt favorittspill?
    1. _____
    2. _____
    3. _____

15. Hvilke språk bruker du når du spiller dataspill? (Skriv svaret ditt i boksen under. Du kan skrive flere svar)

16. Når jeg spiller…
    - ☐ Skriver jeg til andre på engelsk
    - ☐ Snakker jeg med andre på engelsk
    - ☐ Skriver jeg til andre på norsk
    - ☐ Snakker jeg med andre på norsk
    - ☐ Snakker eller skriver jeg IKKE med andre
    - ☐ Jeg spiller ikke
    - ☐ Andre:_____

17. Jeg lærer engelsk fra dataspill (Velg et svar)
    - ☐ Veldig enig
    - ☐ Enig
    - ☐ Uenig
    - ☐ Veldig uenig
    - ☐ Vet ikke

18. Tror du at at man kan bli bedre i engelsk av å spille dataspill? Hvis ja, hva tror du man kan lære av spill? (det er lov å krysse av flere svar)
    - ☐ Engelsk ordforråd
    - ☐ Engelsk uttale
    - ☐ Høre og forstå på engelsk
    - ☐ Lese engelsk
    - ☐ Grammatikk
    - ☐ Skrive engelsk
    - ☐ Andre:_____

19. Jeg blir bedre til _____ av å spille dataspill
    - ☐ Engelsk ordforråd
    - ☐ Engelsk uttale
    - ☐ Høre og forstå på engelsk
    - ☐ Lese engelsk
    - ☐ Grammatikk
    - ☐ Skrive engelsk
    - ☐ Andre:_____

20. Lærer du noen andre ting ved å spille dataspill? Hvis ja, hva lærer du?
    - ☐ Å kommunisere (snakke med andre, forstå hva de sier og få dem til å forstå hva jeg sier)
    - ☐ Løse problemer
    - ☐ Bruke digitale verktøy (f.eks, datamaskin, konsoller, tablet, mobiltelefon, tv, chromebook, og andre)
    - ☐ Samarbeide med andre
    - ☐ Kritisk tenking
    - ☐ Kreativitet
    - ☐ Medborgerskap
    - ☐ Andre: _____ _____

Takk for at du tok deg tid til å svare på denne spørreundersøkelsen!

Appendix 2 - Group Interview guide

Interview guide

The interview will use visual items drawing on information from the questionnaire. The visual elements would be pictures and text from games depending on the games that the learners mention in the questionnaire. The questions in the interview guide are written in Norwegian since the learners will be asked the questions in Norwegian.

Takk for at dere ville være på dette gruppeintervjuet. Mitt navn er Bjørnar og jeg prøver å se på 5. klassingers spillvaner og om deres spillvaner har noen effekt på hvordan dere ser på engelskspråket. Dere har blitt valgt til å bli med på dette gruppeintervjuet på grunn av deres svar på spørreskjemaet som dere svarte på for en liten stund siden. I dette gruppeintervjuet så finnes det ingen rette eller gale svar, jeg vil bare høre hva dere tenker.

Jeg har to lydopptakere her som er på under intervjuet, de er her for å hjelpe meg å huske alt det vi sier i løpet av intervjuet. Ingen andre enn jeg skal høre på dette lydopptaket senere. For at jeg skal klare å høre hva vi har sagt senere er det viktig at vi ikke snakker i munnen på hverandre. Hvis du har en kommentar du vil komme med kan du holde oppe to fingre og hvis du har noe nytt du vil si kan du holde oppe en finger så peker jeg på deg når det er din tur til å snakke.

Hvis dere på noe tidspunkt ikke føler for å delta i intervjuet lengre kan dere reise dere stille opp å gå tilbake til klasserommet uten å si noe. Dere trenger ikke gi en grunn til at dere ikke vil være med lengre. Om dere har gått ut av intervjuet, men så ombestemmer dere og vil inn igjen kan dere komme stille og rolig inn igjen og sette dere.

Har dere noen spørsmål før vi begynner?

Questions for the interview

1. Hvilke type dataspill liker du/dere å spille?
    a. Hvorfor?
2. Hva syns du/dere om spilling? (gøy, lærerikt, kjedelig, vanskelig, spennende (Bruk disse som eksempler hvis ingen svarer))
    a. Hvorfor?
3. Når du/dere spiller spill, hva føler du/dere? (Glede, energi, sinne, nysgjerrighet, etc? (Bruk disse som eksempler hvis ingen svarer))
    a. Hvorfor?
4. Liker du/dere å spille med andre eller alene?
    a. Hvorfor liker du/dere best å spille med andre/alene (Use prop)
    b. Hvem spiller du/dere med?
        i. Vet du/dere hvor de kommer fra?
    c. Lærer du/dere mer Engelsk når du spiller med andre?
    d. Hvordan lærer du/dere Engelsk når du/dere spiller alene?
    e. Hvordan lærer du/dere Engelsk når du/dere spiller med andre?
5. Når du/dere spiller dataspill, bruker du/dere noen form for Engelsk?
    a. Hvilken type Engelsk? (Skriver engelsk, leser engelsk, snakker engelsk, hører engelsk)
        i. Hvorfor velger du å bruke engelsk istedenfor morsmål?
    b. *Bruke bilder hvor elevene kan peke til spesifikke ting hvor de bruker Engelsk. Hvilke bilder som blir brukt vil avhenge av svarene fra spørreundersøkelsen*
    c. Føler du/dere at du/dere blir bedre til å lese, skrive, forstå (høre) og snakke Engelsk av å spille dataspill?
6. Føler du/dere at du/dere lærer engelsk når du/dere spiller dette dataspillet? (Her vil det bli brukt bilder av spill som dukket opp på spørreskjemaet)
    a. Hvilken type Engelsk lærer du her? (Her vil det bli brukt bilder av spill som dukket opp på spørreskjemaet)
7. Syns du/dere at det er stor forskjell mellom å lære engelsk gjennom spill og å lære engelsk i klasserommet?
    a. Hva er forskjellen?

8. Har dere noen andre kommentarer eller ting å komme med som kanskje jeg ikke har tenkt på?

Appendix 3 - Consent Form

Vil du delta i forskningsprosjektet

"Young language learners' perception on gaming and language learning"

Dette er et spørsmål til ditt barn om å delta i et forskningsprosjekt hvor formålet er å se om elever i femte klasse opplever forbedring i engelsk ved å spille dataspill. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg og ditt barn.

Formål
Dette forskningsprosjektet er en del av en masteroppgave som utforsker hvordan elever i femte klasse opplever sin egen læring i engelsk ved å spille dataspill på fritiden. Oppgaven vil prøve å svare på to forskningsspørsmål. "Hvor ofte spiller elever i femte klasse dataspill og hvilke og hva slags type spill hjelper dem å utvikle engelske språkferdigheter?" og "hvordan ser elever i femte klasse på sin egen engelsk språklæring i sammenheng med dataspill?" Dette innebærer at elevene svarer på et kort spørreskjema og at noen av elevene intervjues i grupper. Tiden som ditt barn vil bruke på dette vil dermed være rundt 30 minutter på spørreskjemaet og rundt 45 minutter på gruppeintervjuet. Spill har blitt en viktig del av mange barn og unges hverdag, men det er fremdeles mye vi ikke vet om hvordan disse kan bidra til læring. Dette prosjektet er derfor viktig for å bedre kunne forstå elevenes spillhverdag og om elevene opplever at spill legger til rette for læring, for eksempel ved å øke deres ferdigheter og motivasjon. Kunnskapsgrunnlaget som bygges i dette prosjektet vil deles med ditt barns engelsklærer, og vil derfor også kunne bidra til ditt barns egen språkinnlæring.

Hvem er ansvarlig for forskningsprosjektet?
Universitetet i Stavanger er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?
Ditt barn får spørsmål om å delta ut i fra skolen som var tilgjengelig for studenten, studenten har vært på denne skolen som praksisstudent tidligere.

Hva innebærer det for deg å delta?
Hvis ditt barn deltar i prosjektet, innebærer det at barnet fyller ut et spørreskjema. Dette vil ta ca. 30 minutter. Spørreskjemaet inneholder spørsmål om ditt barns vaner rundt dataspill utenfor skolen, og ditt barns tanker rundt spill og engelsk språklæring. Spørreundersøkelsen blir gjort på papir. Besvarelsen til ditt barn vil bli nedlåst og vil bare være tilgjengelig for student og veileder. Etter forskningsprosjektets slutt vil besvarelsen bli makulert.

I tillegg til spørreundersøkelsen vil noen av deltakerne bli valgt ut til et gruppeintervju. En gruppe er på 3-4 deltakere og det vil gjennomføres to gruppeintervju. I intervjuet vil ditt barn bli spurt om deres spillvaner og deres tanker rundt spill og engelsk språklæring (f.eks Liker du å spille med andre eller alene?). Intervjuet vil bli spilt inn ved hjelp av lydopptaker og lydfilen vil bli lagret på en kryptert minnepinne. All personlig informasjon som kan dukke opp i spørreskjemaet eller i gruppeintervjuet vil bli anonymisert så det ikke kan spores tilbake til individuelle elever. Lydfilen vil bli slettet etter prosjektets slutt.

Foreldre kan ta kontakt hvis det skulle være ønskelig å se spørreskjema og/eller intervjuguide på forhånd. Ta kontakt på mail:
Bjørnar Kristiansen (student): bj.kristiansen@stud.uis.no
Anders Otterbech Jølbo Myrset (veileder): anders.myrset@uis.no

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis ditt barn velger å delta, kan de når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle personopplysninger om ditt barn vil da bli slettet. Det vil ikke ha noen negative konsekvenser for ditt barn hvis de ikke vil delta eller senere velger å trekke deg. Deltakelse i dette prosjektet vil ikke påvirke ditt barns forhold til skolen/lærer. Skolen/lærer vil ikke bli informert om ditt barn skulle velge å trekke seg fra prosjektet. Prosjektet er planlagt avsluttet desember 2023. Ta kontakt med Bjørnar Kristiansen eller Anders Otterbech Jølbo Myrset dersom ditt barn skulle ønske å trekke seg.

Hvis ditt barn skulle velge å ikke delta i prosjektet vil de få en annen arbeidsoppgave i tidsrommet der spørreundersøkelsen og gruppeintervjuet blir gjennomført.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om ditt barn til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. Det vil bare være Bjørnar Kristiansen (student) og Anders Myrset (veileder) som har tilgang til informasjonen som blir gitt i spørreskjemaet og intervjuet.

- Navnet og kontaktopplysningene dine vil bli erstattet med en kode som lagres på egen navneliste adskilt fra øvrige data.
- Svar fra spørreskjema og lydopptak vil være nedlåst og kryptert gjennom prosjektet.
- I den endelige masteroppgaven vil alle personopplysninger være anonymisert.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?

Prosjektet vil etter planen avsluttes når oppgaven blir godkjent sannsynligvis innen desember 2023. Etter prosjektslutt vil datamaterialet med ditt barns personopplysninger bli makulert/slettet.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om ditt barn basert på deres samtykke.

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

Dine rettigheter

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

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

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

- Universitetet i Stavanger ved anders.myrset@uis.no
- Vårt personvernombud: Rolf Jegervatn ved personvernombud@uis.no

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

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

Med vennlig hilsen

Bjørnar Kristiansen	Anders Myrset
(Student)	(Forsker/veileder)

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet *"Young language learners' perception on gaming and language learning"*, og har fått anledning til å stille spørsmål. Jeg samtykker til:

- □ å delta i gruppeintervju
- □ å delta i spørreskjema

Jeg samtykker til at mitt barns opplysninger behandles frem til prosjektet er avsluttet.

(Signert av foresatte, dato)

(Signert av prosjektdeltaker (elevens navn), dato)

Appendix 4 - Pictures used in the group interviews

Picture 1

A photo of the main menu screen from Fortnite. Three characters are shown in the picture: a man, a woman and a monkey character. On the left side of the screen there are options to choose from, these options are: play, battle pass, compete, locker, item shop and career. Additionally at the top left of the picture is the name of the game, Fortnite, and the words season 1 and chapter 4.

Picture 2

The photo depicts the main elements of the game, Fortnite. The character that is controlled by the player is in the center of the screen. In the top left of the screen is the team composition of the player, who he is playing with and their status in the game. In the top right of the screen a minimap of the game area is shown. In the bottom right of the screen is a menu showing the players inventory and different choices for buildings the player can create. At the top of the screen is a compass and at the bottom the shield and health of the player is shown.

Picture 3

The photo depicts the store from the game, Fortnite. The screen shows different options that the player can purchase. Outfits & weapons. At the top of the screen are the names of the other menus that the player can navigate to. Play, battle pass, compete, locker, item shop, career & V-bucks.

Picture 4

The photo depicts a custom game from Minecraft. Several players in front of the player. Their names are written above their heads. On the right side of the screen is a scoreboard. At the bottom of the screen is the player's inventory/toolbar and in the bottom left there is a chatbox.

Picture 5

The photo depicts several different versions of the crafting screen from Minecraft. A 3x3 grid in each frame shows different recipes that the player is creating, with the resources needed on the left side and what it crafts on the right side. Every frame shows a different recipe.

Picture 6

The photo depicts a character from Minecraft. They are wearing a purple armor and highlighted onto each piece of armor is text of what the armor is and what benefits it gives. On the right side of the screen are several picture frames with purple items placed into each one. At the top right of the screen it says in bold text “God Armor”

Picture 7
The photo depicts a house made in Minecraft. It is made from wood blocks with lots of detail. The house is in a forest.

Picture 8
The photo depicts two characters from Roblox, one in front of the other. The character in the front is holding a red knife. The one at the back has a chat bubble over their head saying “Wanna be friends”. They are in a hallway.

Picture 9
The photo depicts many characters from Roblox. They are running around in the street. Over their heads are their names. On the right side of the screen is a list of names. On the left side of the screen there is a chat box.

Picture 10
The photo depicts several player cards from FIFA. Each card has a photo of the players face, their name, their attribute points and the corresponding attribute. There is also a flag symbolizing what country the player is from. There are 12 players in total.

Picture 11
The photo shows the team selection screen from FIFA. Two teams are selected, Wrexham and Liverpool. On each side is the emblem of the teams and underneath it is their rating out of 5 shown in stars. Additionally the average attribute rating of the team is shown under the stars. There is additional information on the teams, where they come from, whether it is a men’s team or a woman’s team.

Picture 12
The photo depicts an ongoing football match in FIFA. There are several players on the team, one marked with a red arrow to indicate who the player is controlling. At the bottom center of

the screen is a minimap of the field. On each side of the bottom is the current football player the player is controlling. At the top left of the screen is the scoreboard and how much time has passed in the match.

Picture 13

The photo depicts a Mario Kart race. The player has turned into a bullet and is passing two other racers. In the bottom right side of the screen is a number indicating the player's position in the race. In the top left there are two symbols indicating what power-ups the players have. In the bottom left there are numbers indicating how many laps the players have finished and how many are left.

Picture 14

The photo depicts the character select screen from Mario Kart. Several characters can be selected. The player has currently selected “Bowser”. On the right side of the screen you can see the currently selected character, on the left side are the remaining characters.

Picture 15

The photo depicts a scene from Portal. The player is holding a white gun. On the left side of the screen is a mechanical door. On the floor in front of the player are two large red buttons. On the wall in front of the player are two portals, one is orange and one is blue. Vines are reaching down from a broken ceiling.

Picture 16

The photo depicts the game “Fight List”. There are three different sections of the picture. The left section shows a phone. Over the phone it says “Discover 1000s of themes”. On the phone it says “types of Kinder”.Chocolate, Country, Bueno, and Surprise are written below. At the bottom of the phone there are keypads. The middle section shows the same games, but it shows both the players participating and what they have answered. The right section shows who won.

Picture 17

The photo depicts the game “Sea of Thieves”. A pirate is standing on a beach. In front of him is the sea and a large sailing ship. There is another player on the ship and his name is visible

above his head. Another player is standing on the beach, his name is also visible over his head.