

The Faculty of Arts and Education

MASTER'S THESIS

Fall semester, 2022			
Open			
(signatur author)			
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Title of thesis: Teachers' and students' beliefs and reported practices concerning the use of digital games in the English subject A study in VG1 after the implementation of the LK20 English subject curriculum			
Pages: 80 + attachment/other: 31			
Stavanger, 14.11.22 date/year			

Abstract

The current thesis aimed to explore Norwegian VG1 teachers' and students' beliefs concerning the use of digital games in the English subject in light of the newly implemented LK20 English subject curriculum. In addition, it aimed to investigate which digital games Vg1 ESL teachers report that they use and why. This study investigated the teachers' reported practices when it comes to digital games and how they use them. Finally, this thesis also aimed to examine if there are any differences in beliefs and practices between teachers' and learners' beliefs concerning the use of digital games in the English subject.

The study used a mixed-method research design to gather the data, including teacher interviews and a student questionnaire. Six Vg1 English teachers from six separate Norwegian upper secondary schools were interviewed to investigate teachers' beliefs and their reported practices. In addition, 104 VG1 students participated in a questionnaire in order to gain a perspective of the students' beliefs.

The findings demonstrated an overall positive concerning the use of digital games in the English subject. Both teachers and the students reported that digital games have benefits when used within the English subject. While some teachers had used digital games as a substitute for a novel, other teachers reported that they had used digital games to increase oral activity and motivation for the English subject. Although the study found overall positive beliefs concerning the use of digital games in the English subject, some challenges were also addressed by the teachers and learners. The two main reported challenges are that the students believe they learn more English playing digital games at home compared to at school and the teachers' differences in reported practices.

The present study contributes to the field of L2 English to gain a better understanding of teachers' and students' beliefs concerning the use of digital games in the English subject. It contributes to the new field by exploring from both the teachers' and students' perspectives.

The main teaching implications proposed by the findings of this study concern how digital games are being used in ESL learning. There seems to be confusion among teachers concerning the best way of using digital games for ESL learning after implementing LK20. A framework for more cohesive teaching practices and increased teacher training is recommended. Further studies are also recommended to gain knowledge about this important topic and how the teachers can benefit more from the extramural English activities that their students participate in at home when in school.

Acknowledgements

A number of people have made the completion of this thesis possible. First, I wish to express my sincere thanks to my supervisor, Torill. Your excellent supervision, honest feedback, and support throughout this process would have been impossible.

Secondly, I want to express my gratitude to the teachers and their students who participated in this study. The teachers gave their invaluable insight in the interviews and were overall a delight to interview.

Finally, I would like to thank my family and friends who supported me through this last year and a half. Your everlasting support and love have meant the world to me and given me the necessary drive to take the next step toward completing this thesis.

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List of abbreviations

EE Extramural English activities

ESL English Second Language

EXP Experienced teacher.

GE Game Education, the teacher has education concerning use of digital games.

ICT Information and Communications Technology

LA Language acquisition

LK20 Norwegian Curriculum for Knowledge Promotion 2020

L1 First language

L2 Second Language

NE Newly educated teacher

NGE No Game Education, the teacher has no education concerning use of digital games.

NSD Norwegian Centre for Data Research

SLA Second Language Acquisition

TX Teacher number X. Example: T1= Teacher number 1.

VC Vocational class

1. Introduction

1.1 Topic, aims, and research questions

This thesis is a mixed methods study of teachers and students' beliefs concerning the use of digital games in VG1 English classrooms. The overall aim of this thesis is to explore teacher and student beliefs about the use of digital games in the English subject, what digital games English teachers uses in VG1, as well as how these are used. Furthermore, this study will also explore if there is a difference in beliefs and practices between newly educated teachers compared to experienced teachers concerning the use of digital games in the English subject. In LK20 there has been a new addition to the English curriculum which says:" discuss and reflect on form, content and language features and literary devices in different cultural forms of expression from different media in the English language world, including music, film and gaming" (Utdannindsdirektoratet, 2020). The other media named in this competence aim have already been used since the last curriculum (LK06), while gaming is a new feature. There have been teachers who have used this mode of teaching previously, but now this are a mandatory part of the curriculum.

Medietilsynet (2020) survey reports that 86% of all children between the ages of 9-18 are gamers. This means that compared to the previous generation the youngest generation are growing up in a technology dense environment. This provides both challenges and benefits for how the teachers may teach. Brevik (2019) researched learners experiences and beliefs concerning their own English proficiency and how this was developed. She demonstrates how learners develop their English proficiency by using digital tools, such as digital games. Extramural English activities is therefore a term that is important for this study. Brevik & Holm (2022) also investigated the significance of connecting informal and formal language teaching to better understand L2 language development among teenagers. They learned that online gaming was a main reason why students used English outside of school. Medietilsynet (2020) also reports similar findings in their survey, where 70% of students asked reported that they believe that gaming improves their English skills. Staaby & Husøy (2019) are two of the early pioneers of using digital games for educational purposes in Norway. They use the term affordance, which in their use translates into interaction offer. They have done research on what the different interaction offers for games are, both scholarly work as well as through their podcast aimed at teachers called "Spillpedagogene". Furthermore, this study seeks to learn what the beliefs

of teachers' and students' have concerning the use of digital games in the English subject, and how their beliefs influence their reported practices. To achieve this insight into teachers' and learner beliefs a mixed-method study will be implemented, including semi-structured interviews with six VG1 teachers, and a digital questionnaire distributed to six VG1 classes. The participants were from six different schools in western Norway and 104 students responded to the questionnaire. The thesis addresses the following research questions:

- What are the beliefs of newly educated teachers compared to more experienced teachers concerning the use of digital games in the English subject in VG1?
- What are the reported practices of newly educated and experienced VG1 English teachers concerning their use of digital games in their English classrooms and what kind of digital games are they using?
- What are the beliefs of VG1 students concerning the use of digital games in the English subject and outside of school?
- What are the learners` experiences concerning the use of digital games in the English classroom?
- What are the main similarities and differences in learner and teacher beliefs concerning the use of digital games in the English classroom?

1.2 Relevance and contribution of the study

The aim of this thesis is to contribute to the research about the use of digital games in the English classroom. Digital games in education are a new research field, which have started developing since the turn of the century. This means that there are a lot of new challenges to take into account, especially within the context of the recent LK20. Because the concept of using digital games in the English classroom is fairly new, it is fair to assume that a lot of the current in-service teachers today have limited experience when LK20 was implemented. Previously the teachers who implemented digital games in their teaching practices did so because of their own personal interests, there were no firm grounds for them to do so in the curriculum (LK06). Previous research conducted by Andreassen (2015) and Staaby & Husøy (2019) argues that before LK20, the use of digital games within education was very much a grassroot movement in Norway. With the inclusion of gaming in the new curriculum this means that every teacher must utilize digital games in one way or another. This notion poses further questions such as: which games will they use, how will they use the digital games, and what is the purpose of using these digital games?

Prensky (2005) refers to the new generation, in this case generation Z (mid to late 1990s to early 2010s), as digital natives. Digital natives have grown up in a technology rich environment compared to the previous generation. The students of today at secondary schools will be in this group, as well as most of the newly educated teachers. Research carried out by Blume (2020) reports that pre-service EFL teachers employ digital-game-based language learning to a limited degree, but that they generally hold positive beliefs about the use of the media. Furthermore, Blume reports that engagement in digital game playing positively affects the perceived English language skills. Estensen (2021) also conducted a study on Norwegian 6th graders where they reported that they learn most of their English outside of school and that playing digital games was the most popular of these extramural activities. The previous studies (Blume; 2020, Estensen; 2021) focus on teacher and learner beliefs. The current study will also focus on learner and teacher beliefs, but in the context of the new LK2020, which for the first time in Norwegian curriculum history includes gaming in its competence aims. Having identified this research gap, the study seeks to make a contribution by exploring both teacher and learner beliefs concerning the use of digital games in the English classroom. Additionally, it is important to research how teachers' beliefs shapes their reported practices and how this can potentially impact their students' practices and beliefs.

1.3 Outline of this thesis

The current thesis consists of six chapters. Chapter one aims to explain the topic, research questions, relevance, and its contribution towards the research field. Chapter 2 describes the theoretical background of digital games and their place within education. Furthermore, the chapter also describes extramural English activities, the framework for teacher cognition and beliefs, as well as learners' beliefs, the Core Curriculum and LK20. Chapter 3 explains the methods used for data collection. The current study was conducted by utilizing a mixed methods approach. The chapter describes mixed methods and how the data was collected. Interviews with teachers and a student questionnaire have been used to gather the necessary data. Chapter 3 also describes sampling process, reliability, validity, and ethical considerations that have been taken into account. Chapter 4 describe the findings of both the teacher interviews and the data from the student questionnaire. Chapter 5 presents a discussion of the reported findings in relation to the theoretical framework established in chapter 2. Chapter 5 also discusses the implications for teaching and the limitations of the study. Chapter 6 draws conclusions and describe the contributions made and their implications for future research.

2. Theory

2.1 Introduction

This chapter will provide the theoretical foundation for this study. The chapter is divided into eleven sub sections under the theory heading. In section 2.2 the scholarly definition of a digital game and key concepts for digital games, including multimodality, motivation and interreactivity will be described. Section 2.3 will explain the term affordance and its relevance for this thesis, and general importance for digital game research. Section 2.4 will explain the difference between the two main kinds of digital games, commercial and non-commercial. Additionally, it will explain the term edutainment. Section 2.5 will introduce the term extramural English activity. Section 2.6 will introduce Krashen's second language acquisition theory and present the relationship it has to digital games. Section 2.7 will explore the use of digital games in the English subject. In section 2.8 the theoretical background for teacher cognition and beliefs will be described. Section 2.9 will introduce theory concerning learner beliefs. Section 2.10 will introduce the Core Curriculum and discuss the aims from LK20 that are relevant for this thesis. Section 2.11 will present a literature review and previous studies.

2.2 What is a game?

2.2.1 Definition

The term "video games" might be understood as games that are played on a console, such as *PlayStation*, in contrast to computer games that are played using a computer. Gee (2003, p.1) refers to both as video games. The terms video games, computer games, console games and digital games are commonly used as synonyms. Mortensen (2009, p.8) provides a definition to the term digital game. Digital games generally refer to any game able to be played on a screen, thus encompassing all the previously mentioned terms, as well as mobile phone games and in general any other game that requires a screen and a computer to function. The first digital game to hit the market in the seventies was *Pong*, which was a very simple digital game that functioned a lot like the *Air Hockey* machines one could find in the Arcades. There are a lot of games that could be played without a computer, but the digital game needs a computer to make it function. However, to simplify the matter, this thesis uses the term digital games, which refer to any game played electronically on any device.

Furthermore, there are three main factors as to what constitutes a digital game, which were emphasized through a variety of studies carried out by Gee, (2005a, p.34) Granic et al. (2014, p.67) and Ritterfeld et al.(2009, p.691). The first is multimodality, which refer to the many modes that can be found within digital games. Second, motivation contributes to challenge the

player of a digital game to continually attempt to perform challenging task for an extended amount of time. Finally, interreactivity separates digital games from other media, by giving the player the option to influence the story and actions within the game (Smethurst & Crabs, 2015). The following section will discuss how this might affect learning.

2.2.2. Multimodality

Skulstad (2018, p.257) explains that the term multimodality denotes simultaneous use of several modes of communication. This means that the user extracts information from several modes. Kress (2010, p.79) defines mode as a socially shaped and culturally given semiotic resource for meaning making. Jewitt (2013) also describes multimodality as an interdisciplinary approach. This approach understands communication and representation to be more than just about written language. The multimodal approach has been developed over the last decade to address questions concerning changes in society. One example of this could be in relation to new media and technologies. "Multimodal approaches have provided concepts, methods and a framework for the collection and analysis of visual, aural, embodied, and spatial aspects of interaction and environments, and the relationships between these" (Jewitt. 2013, p.141). This can manifest itself within digital games through many forms, including images, written texts, music, moving your characters, facial expressions, tone of their voice or other objects within the game.

Jewitt (2013, p. 141-142) understands multimodality as three interconnected theoretical assumptions which underpins it. The first assumption is that multimodality always draw on several modes, including representation and communication. All of these different modes contribute to the meaning making process. These modes can be many things from visual, spoken, gestural, written modes. Multimodality also emphasizes on how these modes can be developed and organized to make meaning. The second assumption is that resources can be socially shaped over time. This will in turn make said resources become meaning making resources, which can be shaped by the different communities and their requirements. These semiotic resources are referred to as modes. Jewitt (2013, p.142) explains that these modes realize communicative work, the choice of which mode to use therefore becomes an important aspect of the interaction and meaning (2013: pg.142). This can get more refined over time as the same resources are being used by a certain community. For something "To be a mode" it is required that there is a shared cultural understanding within the community, which forms a set of resources, and how these can be commonly understood within said community to realize meaning. The final assumption is that there is a necessity for people to collaborate

towards meaning through their selection of modes and prioritizing the significance of interaction between modes. All communicational acts are formed by the norms and rules set by the community and are also subject to influence from the motivation and interests of people within a specific community or social context.

Jewitt (2013) indicates that both the learners and the classroom landscape have changed drastically during the last few decades.

"A landscape marked by accelerated trans-national flows of people, information ideology and materials and communicational contexts where information and knowledge are highly situated, multimodal, rapidly changing and diverse. The classroom as a pedagogic space connects with this, sometimes directly and literally – via the texts that enter and circulate, as well as through the movement of teachers and students who do not check theircultural knowledge and experience at the school gate. The contemporary social and technological conditions of society infuse the school – even when they are not visible" (Jewitt 2013: pg.143).

This can not only be attributed to the gaming culture that are becoming more and more prominent, but also the social and communicational technological revolution we have seen over the last two and a half decades. An example of this can be found in the CNBC's article written by Pei (2019), where the final of *League of Legends*, one of the largest E-sport games in the world, had more than 100 million individual viewers during their final series, more than what the World Series and the NBA finals had. Recent findings indicate that E-sports are now the second biggest sport in the US, only behind NFL (American Football). This change in both technology and culture means that most learners now have access to many multimodal resources, hundreds, if not thousands more than the previous generation of learners had. The English language, due to its inclusion within the domains of language, literature, film, and other media, is perhaps the most susceptible to change in the communicational landscape. If we look back to the start of the technological revolution meaning to the change of century, the use of technology in the English classroom meant a trip to the computer lab to use a writing software such as Word. Now, most English lessons in the western world are taught in technology rich environments, meaning most students have access to laptop computers, scanners, printers and other visual aids. Jewitt (2013: 144) argue that this change indicates a change from print to digital technologies, and that understand the impact of this change is essential for the future design of teaching, learning and curriculum.

2.2.3 Motivation

There are two different types of motivation which are important to this study. There first type is intrinsic motivation. This type of motivation builds on the notion that someone would perform an action based off their own desires, "in which the rewards were inherent to the activity" (Sansone & Harackiewicz, 2000). Extrinsic motivation is on the other hand driven by some external reward, like winning a reward or prize. (Sansone & Harackiewicz, 2000). Ryan and Deci (2000) defines intrinsic motivation as doing something because it is inherently interesting or enjoyable and extrinsic motivation as doing something because it leads to a separable outcome. Intrinsic motivation result in high-quality learning and creativity. (Deci & Ryan, 2000) Renninger (2000) argues that there is a process where there two modes of motivation can switch between each other or move from one to the other depending on the mental state of the learner. By achieving a certain mastery of a subject, the motivation may shift from extrinsic to intrinsic motivation if the learner finds motivation in either or both the learning process and the learning materials. Renninger (2000, pg.390-391) also argues that the people with high degree of intrinsic interest within a subject they have a well-developed personal interest for, is something that they do not need to make a choice to adapt into their learning, choice becomes an effortless process in this case.

Digital game-based learning is a term that is used when discussing the fusion of computer games and learning. Prensky (2005, p.97) discusses what learning already happens when a person plays a computer game, how one would design games that have both the learning dimensions whilst also being appealing to play. He also mentions where they were when he wrote the chapter and speculates into the future and what it would hold for DGBL (digital game-based learning). Prensky identified two key reasons why one might want to design and use computer games for learning "real-word" (or nongame) content.

The first reason Prensky (2005, p.97) lists is that our learners have changed radically. This premise builds on the notion that learners have changed since they have grown up with digital technology, which in turn have changed the way people think and process information. Prensky believes these changes have impacted the younger generation in such an impactful manner that their intellectual style and preferences have been altered drastically from the previous generations. This is also further supported by Liestøl (2001, pg.132). She elaborates on Prensky's statement by arguing that most children of this generation have computer games as a natural part of their digital childhood. Additionally, for many this is their first contact with ICT. The second reason is motivation which will be explored further in the next section.

Prensky (2005, p.97) suggests that computer games may provide a new way to motivate the new generation of leaners. He criticizes how conventional learning mostly builds upon extrinsic motivation. Brevik (2019) studied learners' beliefs and experiences regarding their English language development. The students in her study reported that their English proficiency had increased because they had used English technology extensively outside of school, such as digital games.

In previous generations reading books could be viewed as an activity that would generate the necessary intrinsic motivation for learning. Prensky (2005, p. 97-98) argues that we now have a generation who are growing up enjoying a new form of play: computer games. It must be considered that Prensky's chapter was written 17 years ago, which means it is somewhat dated compared to when this thesis is written (2022), however, Medietilsynet's (2020) biannual survey present evidence proving Prensky's (2005) point. Medietilsynet's (2020, p. 92) survey tells us that 86% of all children between the ages of 9-18 are gamers. Prensky claims that the average college student today has spent less than 5000 hours reading, while they have spent more than double that gaming or on their cell phones. While Prensky arrives at these numbers through speculation based on previous studies, the numbers provided by Medietilsynet (2020) support his claims, at least for Norwegian students. In Medietilsynet (2020) 70% of participants reported that they believe that gaming improves their English skills.

"Different kinds of experiences lead to different brain structures," says Dr. Bruce and D.Berry of Baylor College of Medicine. Prensky (2005, p.98) uses this quote to build his argument concerning how this generation of learners have changed from the previous generations. He refers to this new generation as "digital natives". He also indicates that this makes the rest of us that seeks entrance to this new world or try entering it would then become digital immigrants, which today would apply to most experienced teachers. However, as most immigrants some adapt better to their new environment than others, but all to some degree maintain their accent. Prensky (2005, p.98) explains how this can manifest in many different ways, when this chapter was written it could be to turn to the internet second and not first when searching for information or reading the manual instead of expecting the program to teach us how to use it. A more modern example would be how your grandparent would use their Facebook wall to communicate with people instead of using Messenger, which is how Facebook intends its users to communicate.

Prensky (2005, p.99) argues that traditional school feels like a depressant to the digital natives. This statement needs to be seen in the context that the digital world moves significantly faster than the traditional pace. To the digital natives' traditional school often feels like they are being forced to walk when they could run. This also manifests itself through payoff compared to patience. Traditional education taught patience through the way it was indirectly imposed on the learners through the process of learning. The digital natives are used to high speeds, and thus when they are told to move at a certain pace they ask: "Why should I bother"? Computer games are excellent at providing constant feedback to the users. This can be as simple as a feedback message that says "Good job" or a high score list at the end of a game. This feedback is far less frequent in traditional education than what the digital natives are used to. Havnes et al. (2012) argue for the key role of the agentive learner and that feedback should be perceived as critical, clear, and constructive feedback. Furthermore, their findings also indicate that students value feedback when they are currently working with something instead of afterwards, as it relates to what they are doing now. When reading a textbook and working with tasks that comes along with the text there is no direct incentive for the digital native leaners to complete the tasks. If they are told they are to read the text and complete the tasks they may respond with: "Why should I bother, I already know how to read and write"? The argument that it pays off in the long run is no longer sufficient according to Prensky (2005, p.100) The digital native leaners require meaningful rewards now instead of a far-fetched payoff down the road.

This notion concerning the question of "why should I bother" is also problematized by Liestøl (2001, p.130-131) where she discusses why digital games offers a solution to this challenge. She proposes that students discover on their own accord and are rewarded by progress they find the discovery useful. "The experience offered by discovery by own activity makes the progress to a personal project and success converted into personal satisfaction" (translated from Liestøl. 2001, p.131). Papert (1993) understands "your own discovery" as an opposite to a teacher's instruction. Liestøl (2001, p.130) discusses several games in the entirety of her book, but only one game removed the enjoyment of self-discovery from the player. The only game that did this was interestingly the only game with an explicit learning objective. Liestøl (2001) explained that this was achieved through the computer game taking on the role of a teacher instructing the students, thus removing the ability from the students to discover on their own.

2.2.4 Interreactivity

One of the main strengths of digital games comes in the form of *interreactivity*. Interreactivity is a term which was first coined in 2015 by Smethurst & Craps. Interreactivity is an amalgamation of the two terms interactivity and reactivity. Interactivity can be defined as "(the possibility of) a continuous information exchange between the user and the game system and or the possibility for users to manipulate the content and form of a video game" (Weber et al., 2014, p.83). Rousse (2012) in Smethurst and Crabs (2015) define the term reactivity as "the procedural response characteristic of the majority of video games". Previous research has at large referred to interactivity, however, interreactivity hold more relevance for this study. This term refers to the feedback loop that happens when the player and the digital game responds to each other (Smethurst & Craps, 2015). However, interreactivity only occurs when the player is in complete control of the game and can influence the outcome. If the player is watching a cut-scene from a game the player has no way to experience interreactivity from the game as the player is not in control of the game. Newman (2002) describes these encounters as "off-line" engagement, since they are still paying attention to the game, but in a more passive way compared to when they are "on-line". However, Newman (2002) emphasizes that one should not think of on-line and off-line as two opposites, but as a fluid state which the player can move seamlessly between. Newman (2002) argues that game study scholars have an altogether narrow view on this as they tend to focus mostly on the elements within a game that contain the highest interreactivity, which is a limited approach to take when evaluating games for educational purposes, or in general, as digital games contain many properties from other media that can be utilized.

Smethurst and Craps (2015) explains that interreactivity happens significantly less than people think: "It is important to note that this concept of interreactivity only applies when the player is actually in control of the game, and this occurs less often than many game critics suppose". (Smethust & Craps, 2015, p.5) Rousse (2012) in Smethurst and Craps (2015) also makes the distinction between books and digital games. In his discussion of *Dear Esther*, a digital game where the player must piece story fragments together, he explains that if a person reads a book the person can not have any impact on what is written on the pages. However, if a player is playing a digital game, the game world changes. Rousse (2012) points out that a book is static, but digital games are not. Digital games allow the player various degrees of agency in the game, depending on the digital game. Juul (2003) in Smethurst and Craps (2015) argues that most games allow the players' actions to influence the game state and outcome. This varying degree of player agency can in some cases be deceptive for non-game

scholars, who tend to emphasize the on-line engagements the players have with a high degree of player agency.

Research on interreactivity and interactivity is inconclusive. Ritterfeld et al. (2009) have found that the interactivity of digital games has led to more language acquisition, while deHaan et al. (2010) reported that playing a music digital game worsened vocabulary recall. Digital games offer opportunities for students to take control over their own learning outcomes through the interreactivity. Games can empower students with low self-efficacy which is illustrated in Sitzmann (2011) meta study. Another benefit of digital games is that they can accommodate multiple learning styles, abilities and offer reinforcement of skill mastery (Kebritchi & Hirumi, 2008). Kebritchi & Hirumi (2008) investigated the pedagogical foundation of 55 educational games. 22 of these games were based on learning theories or instructional strategies. Kebritchi & Hirumi (2008) learned that the modern educational game designers try to create authentic contexts that promotes inquiry, exploration, and present learners with realistic problems. Furthermore, games also have a natural way of adapting to the skill level of the player, giving meaningful differentiated experiences (Paraskeva et al., 2010).

2.3 Affordance

One of the key properties of games is not necessarily the games themselves, but what teachers can do with games that they would not be able to replicate with other tools. When defining the term *affordance* one of the earliest definitions has its roots in Gibson (1979). Hagen (2019) use Van Leeuwen's (2006) definition of affordance: "the potential uses of a given object, stemming from the perceivable properties of that object." (p.101) Because of the selective nature of perception, different people will find different affordances from different objects. Many teachers can use games in the sense that they know how they function and what they do, however, fewer teachers know what affordance the games offer. Affordance in this context could also be understood as interaction offer according to Staaby and Husøy (2019).

Staaby and Husøy (2019) explain how digital games interaction offer has two different levels. The first level is the classroom level. Staaby and Husøy (2019) explains: "The games can be used as tools that give both students and teachers new way to interact or to pursue meaning making in the same way that other tools can provide (such as calculators or documentaries)". The second level that Staaby and Husøy (2019) distinguishes is the digital world level, which means that the game provides an environment where character and takes actions within the constraints of this game world. The affordance from within this level is what it is possible to

do with our game character, the tools and skills this character has, and the world and environments of the game. Some of the learning that happens within the frameworks of the game can be directly transferred to the real world, such as a flight simulator game that is used in training new pilots. However, games may also convey what a person or group would feel in a certain situation onto the students without them being put into this situation. Staaby & Husøy also started a podcast named *Spillpedagogene*, which translates into "the game pedagogues" where they discuss different digital games or relevant progress concerning the use of digital games in education.

However, previous research stresses the need for teacher training and support, both in form of materials and guidance from more experienced peers to successfully integrate and adopt digital games in an educational setting (Ketelhut & Schifter, 2011; Wastiau & Kearney et al, 2009). Egenfeldt-Nielsen (2005) conducted a study and noted that the teachers' lack of knowledge in using the game slowed down the success of the teaching course. He explained that the teachers had played the game for many hours before utilizing it in a classroom setting. Therefore, it is not sufficient just knowing the technical aspects of running through a game, but it is also necessary to know how to contextualize it for the students so they understand what the learning outcome should be from the class. Ørevik (2018, p.250) also argues how the affordance in digital games has become increasingly recognized. In the introductory phase of computers in the classroom, the easy access to social media and games gave several challenges for the teachers. However, research shows that this distraction has diminished over the years. In 2013, 25 % of the 7th grade students who participated in the Monitor Survey (Hatlevik et. Al 2013) answered that the computer usage was a disturbing factor for them. In the Monitor report three years later (Egeberg, Hultin & Berge 2016) this figure had decreased by almost half down to 13.5% of participants.

2.4 Commercial games and non-commercial games.

Egenfeldt-Nielsen et al. (2013) divides digital games into three categories. Commercial educational video games, or *edutainment* games, commercial entertainment games and research-based educational games. For the purposes of this study commercial educational video games and research based educational games will be referred to as *non-commercial digital games*, as the purpose of these games are primarily to educate. Commercial entertainment games will be referred to as *commercial games*. Commercial games are games that are made entertainment such as *The Walking Dead by Telltale games* or *God of War*. Commonly these games are made by large scale companies and referred to as triple A titles.

Non-commercial games are on the other hand made with educating in mind. These non-commercial games can have many purposes, such as learning how to pilot a plane through a plane simulator game or *Play Spent* which wanted to raise awareness about the homeless situation in the United States. They may be entertaining still, but this is not their main purpose. Their main objective is to convey a message or a learning outcome, like *Play Spent*, or to educate someone on a specific topic, be learning to maneuver an aircraft (Prensky, 2005) or learning English grammar.

Egenfeldt-Nielsen (2007, p.263) explains that edutainment essentially was "a classic formula for producing educational computer games based on learning theories." The term is also rather broad as it refers to many media; for the current study the term will only refer to the digital game portion of the term. Edutainment is inspired by behaviorism, and to some extent cognitivism and socio-cultural theory. Edutainment tries to focus on a simple computer game and emphasizes the delivery of simple information to the player. The simplest level of edutainment is that there is a clear reward structure in the game separate from the educational experience, designed to trigger the extrinsic motivation of the player. There are a couple of fallacies that edutainment inherently possesses. There is little intrinsic motivation in the games, there are also no integrated learning experience, meaning that the aspect of play will most likely override the initial goals, which was to learn something, while you play. There is also a tendency to learn by doing drill-and-practice (Egenfieldt-Nielsen, 2007) thus not promoting understanding. Usually, they are also rather simple in terms of gameplay, they are often low budget which decreases immersion and gameplay freedom and there is also no need for teacher guidance to utilize them or challenge the student to a positive meaning making experience.

Egenfeldt-Nielsen (2007) also raises the overarching issue concerning the use of digital games in education which is that in general "most studies tend to be one-shot studies with a lack of knowledge of the characteristics of computer games and with a weak connection to earlier research". He argues that more studies need to digital games to other teaching methods or activities to examine if the computer games are worth the initial efforts in mastering the requirements to implement the media and overcoming the practical challenges to implement them into education. Additionally, he argues that the real question that needs to be asked is if the digital games offer more compared to existing educational practice, what, if anything, gives the digital games a didactical advantage over conventional teaching practices? Should there be use of non-commercial games or commercial games, or a mix of the two? Finally, he

concludes that there are may researchers and developers within the area that still utilize the early generations of educational digital games, but this is low hanging fruit, which demands very little from the teacher that utilizes them. He argues that the future of using digital games lies more within those games where the teacher can act as a mediator for the students into the game knowledge and that the student need to explore and try to make meaning within the frameworks of the digital game.

The problematic aspect with commercial games is that it could be challenging to know which parts of the game or what aspect of the game the students should utilize in order to connect it to the subject materials. This is a skill which needs to be developed (Egenfeldt-Nielsen, 2007) so that teachers can serve as facilitators of learning. A challenge many teachers who have been in-service teachers for several years is that they are lacking this cultural interaction with digital games that children and young adults are getting these days inherently through their upbringing in technology dense environments (Prensky, 2012). For them to then know how to properly utilize the tool that digital games can be, will prove challenging as they are lacking some of the success factors described by Staaby & Husøy (2019). Therefore, when working with the teaching aims that concern the use of gaming, they often go towards using non-commercial games instead as they are easier to implement into a teaching plan. This can be practicing grammar using digital grammar games, which technically is still a game, but this forsakes the aspect of the competence which mentions "reflecting on form, content, language features and literary device in different cultural forms" (LK20).

Liestøl (2001, p.134) argues for the use of commercial games within education. She explains:

"it is mostly the commercial games that maintain the aspects of a learner-centric pedagogical approach, such as inner motivation, experience of competence, independence, and the student's accountability for their own learning outcome. In this way digital games have managed to convert educational settings into something positive and exciting by utilizing individual mechanisms and meaningful action structures" (translated from Liestøl, 2001, pg.134).

This way of utilizing commercial games supports one of the main features of what the new curriculum wants to promote, which is that the students should take responsibility for their own learning outcome, as well as critical thinking. The core curriculum emphasizes that students must be able to assess different sources of knowledge and think critically about how knowledge is developed. (Core Curriculum part 1.3, 2020) This naturally revolves around the

use of digital information, and this also challenges the students to perceive that knowledge can be developed from unconventional places, such as digital games.

2.5 Extramural English Activities

Extramural English (EE) was developed as a term by Sundqvist (2009) in her PhD dissertation. Sundqvist & Sylvèn (2016) define the term as follows:

"English that learners come in contact with or are involved in outside the walls of the classroom. This contact or involvement is not initiated by the teachers or other people working the educational institutions; the initiative for contact/ involvement lies with the learner himself/herself or, at times, with someone else, such as a friend or a parent" (p.6)

The term therefore refers to English learning done by the learner's own initiative in a non-educational environment, as the main goal for the learner who is exposed to EE had no intention of learning English as the outcome when they engaged in said action. The learner therefore engages in EE activities due to intrinsic motivation; they choose the activities based on their own interests. The opposite of EE activities are teacher-initiated activities. This refers to everything the pupils learn at school if it is dictated by a teacher. There are several examples of EE activities such as playing digital games online or watching English speaking videos on YouTube. EE activities do not limit themselves to just digital media, if you engage with a native English-speaking friend on a summer holiday this would also be an EE activity.

Another distinction that is worth noting concerning EE activities is the difference in definition that Sundvist & Sylvèn (2016) draw in comparison to Benson (2011). He uses the term out-of-class learning. Benson (2011) coins this as: "activities that have no direct relationship to schooling, and that much of such learning takes the form of self-directed naturalistic learning, in which the learner engages in language activities for the pleasure of interest, but also with the intention of learning" (Benson, 2011. P.139) The contrast that Sundvist & Sylvèn (2016) try to distinguish here is that Benson (2011) uses the word "learning" as a key component of his definition. Sundvist & Sylvèn (2016) argue that this may be associated with Krashen (1982) and his concept of learning as a conscious process, instead of acquiring language through exposure, and this then being a subconscious process. Another term is far closer to EE activities, which is the term "incidental learning", which Laufer and Hjulstijn (2001) define as "learning without an intent or learn, or as the learning of one thing when the learner's objective is to do something else". Sundvist & Sylvèn (2016, pg.8) come to a

consensus that it is applicable to view incidental language learning as a subcategory of extramural learning, as extramural learning deals with both intentional and unintentional learning.

Previous studies have concluded that many children and young adults develop their English skills predominantly through participating in EE activities such as playing digital games online. (Brevik, 2019; Brevik & Holm, 2022; Estensen, 2021; Sundvist & Sylvèn, 2016). Sundqvist & Sylvèn (2012) and Estensen (2021) also argue that the students who participates in EE activities do better in the English subject at school because of their participation in EE activities. The learners themselves also seem to think that EE activities have benefits for their language acquisition, which is made apparent in Brevik & Holm (2022) as well as in Medietilsynet 2020. Numbers from Medietilsynet (2020) show that 70% of students asked report that they think that becoming more proficient in English is one of the main benefits of playing digital games. The research also indicates that there are some digital game genres that have more beneficial aspects compared to others. Sundqvist & Sylvèn (2012) favors MMORPGs, such as World of Warcraft. These digital games contain more modes that the students can potentially acquire more language from as there are both written and spoken language as well as complex acted out dialogue, which promotes vocabulary inside the digital game. Furthermore, these games also require the player to communicate both written and orally with other players. Therefore, Sundqvist & Sylvèn (2012) favor these games because of the numerous ways players can encounter English language inside the digital game.

2.6 Krashen's Second Language Acquisition theory.

According to Krashen (1982), several factors can impact learners' *second language acquisition* (SLA) process: motivation, confidence, and awareness of implicit or explicit LA. Krashen (1982) has five hypotheses concerning how we acquire a second language. The first hypothesis is the acquisition-learning hypothesis (Krashen, 1982) which argues that acquisition is more influential than learning and that language is learned subconsciously. The second hypothesis is the natural order hypothesis which claims that learners acquire language in the same predictable order but at a different pace. The order of acquisition can not change the natural order of acquisition, despite explicit instruction (Krashen, 2013, p.1-2). The third hypothesis is the monitor hypothesis, which suggests that subconsciously acquired language helps the learner produce fluent output, while the consciously learned language can only function as a monitor (Krashen, 2013, p.2). The fourth hypothesis is the input hypothesis. This hypothesis describes how learners move from one stage of the acquisition process to

another and proposes that one can acquire language that one has not yet developed if the language that one attempts to learn is near the linguistic stage of the learner (Krashen, 2013). The final hypothesis is the affective filter hypothesis. Krashen (2013) argues that affective variables do not impact L2 acquisition directly but prevent input from reaching the part of the brain responsible for L2 acquisition (p.5). All of these emphasize the development of four primray skills: reading, writing, listening, and speaking (Krashen, 1982). Sunqvist and Sylvên (2012) have shown that using digital games can be an effective tool for students' language acquisition. Digital games are deemed effective because they all nourish the four main skills Krashen (1982) promotes as key in his hypotheses. The central hypotheses that will be relevant to this thesis is the affective filter hypothesis and the input hypothesis.

Krashen (1982) suggests that there are affective factors that can impact language acquisition. There are three main categories that Krashen (1982) emphasizes: Motivation, stress, and anxiety. The affective filter provides us with an understanding of how digital games can be beneficial for language acquisition. If a person has low anxiety combined with a high degree of motivation and self-confidence, they will be more receptive toward language acquisition. Therefore, if the inverse is true, they will seek less input and "refuse" the acquisition, despite understanding the conveyed message (Krashen, 1982). The properties of digital games inherently provide the necessary challenges suited to the different players of the game. Paraskeva et al. (2010) suggest that digital games offer a differentiated experience, meaning that the game can change to suit the desired difficulty of the player and therefore improve motivation as a result of the increased sense of mastery. The opportunity to retry a difficult game stage also decreases the anxiety caused by the fear of failure. Krashen (1982) points out that the affective filter lies outside of the acquisition process itself, indicating that the input is an important factor contributes to either increasing or decreasing the acquisition process.

Krashen's input hypothesis is important for the discussion of digital games and SLA. When playing digital games students are exposed to visual and audio input. In his input hypothesis Krashen (1982) attempts to answer the question of how we acquire language. This is important for teaching as it has practical implications for teaching practices. Krashen describes the process of how learners can advance from one stage of competence to the next (i+1). The current stage is "i" and the next stage is "+1" (Krashen, 1982). The learner must understand input from a more advanced stage of competence to advance to the next stage according to Krashen (1982).

2.7 The use of digital games in the English subject

The main attribute that allows digital games to be useful in almost any English language learning scenario is that there is an abundance of English language that can be encountered. This has already been displayed in previous studies concerning EE activities, which research indicates is a big contributor towards how the youth are learning English when we look at the findings presented by Medietilsynet (2020). However, there are fewer studies done concerning the use of digital games in ESL classrooms (Ranalli, 2008). Ranalli (2008) completed a research project utilizing the digital game *The Sims*. The Sims is a simulation game where the player simulates everyday life and all that entails from house building to everyday interactions with your neighbor. Ranalli (2008) argued that commercially produced simulation games, such as The Sims, can with theoretical guidance, be utilized by ESL students. However, there are also challenges with these kinds of games. Due to the sandbox¹ nature of the digital game it is hard to frame it in a manner where the learners would reach the intended linguistic learning outcome without very strict instructions, which could negatively influence the appeal of the digital game for teaching specific vocabulary. There was a similar study done a few years prior by Miller and Hegelheimer (2006) which reported similar findings. Ranalli (2008) also points out that despite the vast amount of commercial English language based digital games that exists, there are not many of them that would both provide interreactive traits and still fit within the frameworks of an English curriculum.

2.8 Teacher cognition & teacher beliefs

According to Borg (2009) it is important to understand what teachers believe in order to understand their teaching practices. The term belief can be defined in different ways. Pajares (1992; 316) has a widely cited definition which states that beliefs are an individual's judgement of truth or falsity of a proposition. Borg argues that he finds more interest in a list of conditions proposed by Skott (2014), which has four key elements. They are the ideas that individuals consider to be true, their cognitive and affective dimensions, that their beliefs are stable and result from substantial social experiences and finally that they influence the individual's practice (Borg 2015a: pg.76). However, Borg also explains that the notion that the final point is true, is however, in part contested. In social psychology the study of attitudes (which includes beliefs) has found that these are more often than not a good indication of an

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¹ A sandbox game is a digital game genre. The main trait of this genre is that the player can do almost anything within the frameworks of the game.

individual's behavior. The most obvious reason behind this is that beliefs are just one out of many factors that make up an individual's behavior.

Borg (2009) explains that teacher beliefs are often studied under the broader heading of teacher cognition. Teacher cognition, in addition to beliefs, also accounts for related constructs including attitudes, knowledge and feelings. Borg (2015b, p.488) also lists several studies conducted concerning teacher beliefs and argues that teachers' beliefs about teaching and learning can be heavily influenced by their time in school. "Their beliefs may also act as a filter that teachers use to interpret new information and experiences, but it can also outweigh the effects of their education when influencing how teachers conduct their classroom practices" Borg 2015b, p.488). Borg (2015b) also suggest that teachers' beliefs can influence how teachers react to educational change, such as the *LK20*.

One of the challenges concerning the reforms implemented in LK20 is that the teachers are now supposed to mediate a cultural expression which they, at least the teachers who are not considered to be digital natives (Prensky, 2005), have not taken part in. Braley (2005) argues that fear is the key opponent to implementing new media into an educational format. She elaborates that instead of fearing the diminishment of literacy scholars in the humanities could participate in the authoring and promoting polyliteracy, thus inviting their cherished books into an exciting multivocal discourse with electronic media (p.95). Hammond et al. (2009) conducted a study where several teacher students were interviewed concerning their use of ICT. One of the main contributing factors towards their positive views and experiences towards the use of ICT in for educational purposes was the impact of mentors that they could observe or confer with concerning the application of ICT. If there was a lack of mentors around the inverse would also become prominent, the students without a mentor or someone fulfilling that role also reported that they felt more uncertainty when trying out new projects within ICT. (Hammond et al., 2009).

This notion is further supported by Higgins (2013:111) where he argues that students, or younger teachers, adopt new technology more efficiently when it is socially desirable and serves their own personal interest. This can be seen in students already through the various surveys that have been conducted such as Monitor and Medietilsynet's reports. Furthermore, Higgins (2013) also suggest that teachers who are older and more set in their ways are slower at adopting new technology and that this stems from their motivation. Blume's (2020) study on German pre-service EFL teachers also supported these arguments, that the new generation of teachers were overall positive in their views of adopting digital game-based language

learning, despite lacking the personal experience using said technology. There is also research that suggests that when experienced teachers change it is more emotionally driven rather than cognition driven (Galman, 2009; Golombek & Johnson, 2011). There are reports from several scholars that have found that digital games in a classroom are often looked upon with skepticism (Becker, 2007; Egenfeldt-Nielsen, 2005, 2007; Ketelhut & Schifter, 2011; Muehrer et al. 2012; Tuzun, 2007). Some of these also report that digital games are not a good fit into existing teaching routines (Becker, 2007; Tuzun, 2007). This comparison based on the research carried out by Andreassen (2015), Braley (2005), Blume (2020 and Higgins (2013) indicates that there is a difference in beliefs when comparing younger teachers to more experienced teachers.

This study also makes a distinction between newly educated teachers and experienced teachers. Ruohotie-Lyhty (2016) conducted a study where one of her main findings showed that the majority of newly educated teachers were constructed as dependent on the school environment and its norms thus being forced to change their beliefs, they carried from their graduation back to what would be considered traditional teaching. However, there were some of the newly educated teachers that felt free and even encouraged by their school environment to implement their beliefs and new ways of teaching EFL in their classes. Blume's (2020) study also showcases that personal interest might be more important than their age when applying digital games into their teaching practices. Just like Prensky (2005) labelled the former generation "digital immigrants" the newly educated teachers can also be seen as immigrants within their new environment. Blume (2020) explain that some of the newly educated teachers may very well thrive and keep their identity as an educator, but others may try to assimilate into the group identity to best fit the mold that will make their peers look upon them with respect. Implementing any new practice is something that will take time and effort, especially perhaps with digital games. Therefore, one of the main concerns towards implementation for digital games would be the time constraints. Digital games if played in their entirety, are usually designed to fit within a content and time-related constraint. This can be a challenge when implementing them in an educational setting (Becker, 2007; Brom et al. 2010).

There seems to be some challenges concerning how research indicates that the newly educated teachers are not given sufficient opportunity to experiment with their new ways of teaching EFL, and potentially new cultural aspects that they are potentially better suited to mediate as they are a part of, or at least closer to the digital native generation, and thus

logically would have a better background to mediate these cultural expressions. Ertmer (2005) argues that the individual teacher plays an important role in deciding how and why *information and communications technologies* (ICT) are used in the classroom, this naturally also extends to digital games for this purpose. De Grove et al. (2012) argues that the teacher naturally has a big say in the actual decision to use digital games in a classroom. Not all decisions are made at the teacher level, some teachers work in a specific school with a specific organizational charactersistics (De Castell & Jenson, 2003). Therefore, some consideration concerning the organizational attitudes towards the implementation of digital games is necessary to take into account when conducting the data collection for this study.

2.9 Learner beliefs

Lightbown & Spada (2006) suggests that all learners, and especially older learners, have certain beliefs concerning how their learning instructions should be presented. Lightbown & Spada (2006, p.91) also define learners' beliefs as "beliefs which are based on previous learning experiences and the assumption that a particular type of learning (right or wrong) is the best one for them to learn". This means that learner beliefs are based on previous experience if what has been effective for them. This is further supported by Dörnyei (2005), who argue that there is little doubt that previous research has shown evidence that the beliefs of the learners will affect how well they will acquire knowledge in L2.

Kalaja et al. (2015) argue that learners beliefs concern three related issues. These issues are: "learners as personalities, the tasks carried out, the (in)efficiency of the strategies used by learners in their efforts to learn foreign languages" (Kalaja et al. 2015, p.22) This study will place more emphasis on the two last issues, however, it will to some extent also encounter the first issue.

The concept of learners' beliefs have been around since the 1970s and the way researchers have been approaching this research field have changed over the years. In recent years there are two main approaches to doing research on learners' beliefs. The first approach is referred to as the traditional approach, which have followed the way marked out by the pioneers of the field. This approach often uses questionnaires with mostly close ended questions and in some cases, interviews have been used as a research method. The second approach follows a less used path, or several crossing paths. This approach is most often referred to as a contextual approach. One of the most important acknowledgements of this approach is that "language to be learned, being a learner, the learning process, and learning contexts are all charged with positive or negative experiences and loaded with personal meanings" (Kalaja & Barcelos

2013, in Kalaja et al. 2015 p.22). This means that the perspective on learning have been shifted from an outsider perspective to an insider perspective. This study will take a more contextual approach to learners' beliefs as the learners will provide insight on their own learning experiences.

Peacock (1998) addresses the link between teacher and learner beliefs. He revealed how a discrepancy between learner and teacher beliefs could impact the leaners' language progress negatively. Nunan (1995) argue that learners should be involved in making choices among different options and that they should identify their preferred learning styles and strategies.

2.10 The Core Curriculum

At the time of writing this thesis LK20 is still a relatively new curriculum reform. There are many important elements such as the future of examinations in schools which are still yet to be decided. However, based on the changes made from LK06 it is clear that digital competence will have a key role in the new reform. This can be seen in the core curriculum where digital skills are listed as one of the five key components of the course learning outcomes. Despite the emphasis placed on digital competence and digital infrastructure in the curriculum reform, the Norwegian teachers and school leaders were not prepared for the changes. In a survey administered to parents about how digital homeschooling was organized during the Covid-19 pandemic the researchers` main finding was that the students at large worked on "individual tasks, with limited support from their teachers" (Blikstad-Balas, Roe, Dalland, & Klette, 2022, p. 177).

The researchers also give the following remark: "while teachers in Norway have been expected to draw on digital tools across all school subjects and grades since 2006 this has not resulted in a shared digital repertoire of practices across, or even within, schools." (Blikstad-Balas, Roe, Dalland, & Klette, 2022, p. 196).

This remark gives us an indication that despite the focus that the previous curriculum (LK06) had on digital resources, there are still a lack of a digital portfolio that teachers can browse and implement in their teaching practices. The curriculum aim that specifically mentions gaming says nothing concerning what kind of digital games the teachers are supposed to use, leaving it up to the teachers to choose which digital games they should use. There are some resources at the NDLA websites that have some ready-made lesson plans that teachers may adopt into their teaching practices, but these mostly have non-commercial digital games that can be played in a digital browser.

Arstorp & Røkenes (2022) argue that the extent of a teacher's professional digital competence should not only consist of the knowledge and skills needed for designing lesson plans, teaching, and assessing, but also should encompass an understanding of how digital technology changes schools, society, core subjects, teaching methods, interactions, and how we express ourselves. They conclude that a teacher's professional digital competence should incorporate all these aspects into the teacher profession. The Core Curriculum also aligns at large with this interpretation, but also has a different remark. The Core Curriculum (part.3.5) expects the teachers and school leaders to "develop academic, educational, didactic and pedagogical content" meaning that the teachers are obliged to cater to educational changes that arrive with reforms over time. The Core Curriculum also argues for the importance of individual and collaborative professional judgement. This requires the teachers to be regularly updated. Furthermore, the Core Curriculum reads:" The teaching profession must therefore assess its educational practice so that it gives individual pupils and groups of pupils the best possible teaching." (LK20, Core Curriculum, 3.5) If one applies Prensky (2005) thoughts about digital games to education, there is a clear indication as to why gaming has been included in the competence aims in LK2020. The amount of digital culture that young people today encounter have significantly increased from the previous generation.

2.10.1 The English specific curriculum and the LK20 reform

Andreassen (2015) described the concept of using digital games in education as a grassroot movement back in his master thesis in 2015, however, the climate since then has shifted because of the new curriculum reform LK20. Gaming have now been introduced as a part of the curriculum in the form of a new aim. This aim reads as follows:

"discuss and reflect on form, content and language features and literary devices in different cultural forms of expression from different media in the English-language world, including music, film, and gaming". (LK20, 2020).

This aim has caused a lot of controversy about how to practice this aim in the field. The first part is perhaps somewhat normal, but the big difference in this aim from the last curriculum is that it takes digital games and the concept of gaming into the account. Staaby & Husøy (2019) explain that for many teachers' digital games are not a part of their culture, and therefore mediating a cultural expression you have not taken part in can be challenging. However, for the younger generation this seems to be changing. Staaby and Husøy (2019) claims that games are socio cultural artefacts (p.102) and that this is not controversial as they have started to exist within a certain culture, they belong in certain social contexts and practices, and they

carry both explicit and implicit values and presumptions. As the school is a cultural mediator Staaby and Husøy (2019) argue it is natural to include the use of digital games within the educational contexts.

Staaby and Husøy (2019) also emphasizes that both the teacher and student needs frameworks for the game that creates connections between the digital game and the subject. The teacher or the students need to identify aspects from the curriculum or the topic they are working on that exist within the digital game's contents or actions, and the learning within the game should support the subject specific learning. This can only happen if the teacher makes him or herself sufficiently familiar with the game that will be used in this educational setting. The teacher does not need to be an experienced "gamer" to utilize this properly but should be well versed in the topics that are relevant within the game and what they could mean to the subject specific curriculum aims they intend to focus on.

Gee (2013, p.61) draws an interesting comparison between digital games and books. While there are some key differences, there are also some similarities. According to Gee (2013), both digital media and books "are both forms of literacy in the sense that they are forms of taking meaning (reading) and making meaning (writing)" (p.61). If you treat digital games as text, it is easier to see why the Ministry of Education have decided to include terms as "language features" and "literary devices" in the aim.

2.11 Literature review and previous studies

This section presents several studies and research conducted on the use of digital games in the English classroom, digital games as an extramural activity and the use of digital games a media for education. Several studies have found a positive correlation between the use of digital games and English language learning. The teachers have a key role in using digital games for educational purposes, therefore several studies have been carried out to map the teachers' beliefs and attitudes concerning the use of digital games in an educational setting. Generally, the beliefs are positive, but research also indicate that the teachers are reluctant users of digital games. Blume (2020) found a positive connection between gaming and L2 learning. She carried out a survey on pre-service EFL teachers' beliefs and practices concerning digital game-based language learning. The overall results demonstrated that younger teachers generally hold positive beliefs about the use of digital game-based language learning.

Previous research on digital games in formal education has shown that students who consider digital games as tools offering learning opportunities score higher on their preference for using games in a classroom setting (Bourgonjon et al., 2010). It has also been shown that digital games can have a positive influence on learner performance and productivity (Bourgonjon et al., 2010; Sundqvist & Sylvèn, 2012). Research has also found that students with experience in playing digital games have a different view on the possibilities and limitations of digital games in an educational setting, meanwhile students with less experience lean more towards general beliefs (Bourgonjon et al., 2010). Digital games are widely linked with play instead of learning and therefore it is natural that those with little or no experience using digital games in an educational setting will be drawn towards the notion that games are only for entertainment.

Brevik & Holm (2022) conducted a study on the link between playing video games and language development. They reported results that indicated that informal and formal language teaching and learning were connected in two ways. The first link was that the students who used English outside of the classroom setting was primarily linked to two medias: online gaming and social media. The second link was the teachers who designed tasks that extended the students *affinity space*. Affinity space refer to a place where people interact with each other, typically remotely and through shared practices or endeavors. This resulted in the students utilizing English in the classroom with more frequency and confidence. Brevik & Holm (2022) also argue that the teachers have a responsibility to avoid schools being seen as isolated spaces for academic learning. By using and promoting digital games and digital tools in their classrooms teachers can facilitate an opportunity for students to increase their intrinsic motivation of learning English both inside and outside of school.

Brevik (2019) also studied learners` experiences and beliefs concerning their own English development. The students in her study reported that their English proficiency was due to their extensive use of English technology and tools outside of schools. She identified three main categories of students, the Gamer, the Surfer, and the Social Media User. All of these categories approach English language differently, but the common ground being they get exposure to English language through their interests. Brevik therefore concluded that the learners` interests and L2 proficiency are intertwined.

3. Methods

3.1 Introduction

This chapter aims to describe the methods that have been used to answer the research questions of the thesis, which are as follows:

- What are the beliefs of newly educated teachers compared to more experienced teachers concerning the use of digital games in the English subject in VG1?
- What are the reported practices of newly educated and experienced VG1 English teachers concerning their use of digital games in their English classrooms and what kind of digital games are they using?
- What are the beliefs of VG1 students concerning the use of digital games in the English subject and outside of school?
- What are the learners` experiences concerning the use of digital games in the English classroom?
- What are the main similarities and differences in learner and teacher beliefs concerning the use of digital games in the English classroom?

In order to answer the research question, the thesis uses a combination of a qualitative and quantitative data collection method, resulting in a mixed-methods approach. This chapter explains the data collection methods that were employed for this thesis about the teacher and learner beliefs and practices by discussing mixed methods as well as the attributes of quantitative and qualitative approaches.

3.2 An overview of the study

In this section, the data collection methods that were used in order to answer the research questions of this thesis will be outlined. As a reminder, the research questions deal with teacher beliefs, which computer games English teachers use in upper secondary schools, and the beliefs of upper secondary school students have about the use of digital games in the English subject and outside of school. The interviews were completed first with the teachers and afterward, the students were given the opportunity to complete the questionnaire online. The questionnaire was administered using the anonymous version of SurveyXact. According to Borg (2015b) disclosure may impact what the teachers and students report. After careful consideration the following approach was taken. The teachers that were interviewed did not get any specific questions in advance, they were, however, told the topic of the interview and a few sample questions. The students did not get to know anything about the questions in the

questionnaire beforehand. The researcher did not specify anything to the teachers concerning the information they gave to the students concerning the topic of the questionnaire but based of feedback from the teachers some of the teachers introduced the topic of the questionnaire to the students. This was done to record the most natural responses if students/teachers were given the questions in advance they might discuss them with their classmates/colleagues and then they could potentially form a collective response instead of their own natural response. The teacher had the option to view the questions in the questionnaire, but they would not know which students participated or what their answers were. The reasoning for doing the questionnaire online instead of in-person was partially a practical one. The data material was significantly easier to handle and saved a lot of time when done online. Additionally, it also ensured the anonymity of each student as the teacher could not look at the responses if they were to do a physical questionnaire. Furthermore, when this questionnaire was created and administered there was a lot of uncertainty concerning the Covid-19 virus. There was no guarantee if or when the students would physically be in class, so therefore the decision to do an online questionnaire was a necessary one.

3.3 Mixed methods

This study employed a mixed methods approach. Dörnyei (2007) argue that a mixed methods approach is a combination of quantitative and qualitative data. He explains how a mixed methods study will involve the collection or analysis of both qualitative and quantitative data in a single study. It is also commonplace to integrate the qualitative and quantitative data at one or more stages within a study. Furthermore, combining several research strategies can help broaden the scope of the investigation and help the researcher when making conclusions. (Dörnyei, 2007). There are many benefits of mixed methods research, and several scholars advocate for using mixed methods in research (Dörnyei, 2007). One of the main benefits of a mized methods research is that by utilizing both qualitative and quantitative data researches can bring out the best of both paradigms. Therefore, the strengths of one method can be used to overcome the weakness of another method. Additionally, mixed methods research allows for an improved understanding of a complex phenomenon by converging numeric trends from quantitative data and specific details from qualitative data. Finally, mixed methods research can also improve validity of the research by producing evidence for the validity of research outcomes through the convergence and corroboration of thee findings.

Christensen and Johnson (2019) argue that adding a quantitative component to qualitative research or the other way around is necessary to produce a mixed methods study. Mixed

method is when both quantitative and qualitative data is collected from a single data source. This study collected data through one qualitative and one mixed method. The interviews collected qualitative data, while the questionnaire collected both qualitative and quantitative data. Christensen and Johnson (2019) define qualitative research as data that follows an exploratory mode. Furthermore, they indicate that qualitative research is research that allows for a more in-depth description, for instance, interviews that contain direct quotations from personal experiences to get a better understanding of individuals or a particular group. Quantitative research on the other hand deals with numerical data, analyzing the numerical data to find patterns, averages, and more. (Christensen & Johnson, 2019).

3.4 Data collection

3.4.1 Teacher interviews

Kvale (1996) describes the typical qualitative interview as a "professional conversation". The main purpose of this conversation is to obtain a description of the real world of the interviewee. The present study aims to study teachers' beliefs and teachers reported practices. Kvale and Brinkmann (2008) in Brinkmann (2014) elaborates on this notion arguing that "an interview with the purpose of obtaining descriptions of the life world of the interview in order to interpret the meaning of the described phenomena" (p. 286-287). Merriam and Tisdell (2015) argue that the main purpose of an interview is to obtain a special kind of information. Patton (2015) suggest that when interviewing, the researcher wants to learn what is in somebody else's mind. These things can not be observed. Therefore, it is important that the researcher choose appropriate methods to attempt to make beliefs more explicit. Interviewing is an appropriate method in terms of exploring teachers' beliefs (Merriam & Tisdell, 2015).

The present study used the semi-structured interviews. Semi-structured interviews are the most common type of interviews in applied linguistics research (Dörnyei, 2007). This structure has found a compromise between the structured and unstructured interview styles. The semi-structured interview is characterized by how the interviewer prepares some guiding questions and prompts, but the format is still open ended (Dörnyei, 2007) The open format encourages the interviewee to elaborate in an exploratory way. This format still requires the interviewer to prepare an interview guide, but the questions need to be formatted in a way that they do not limit the breadth of the responses from the interviewee. Normally the interviewer will ask the same questions to all the participants, but not necessarily in the same order or

wording. Additionally, this style allows for probing when the interviewee does not answer satisfactory, or the interviewer believes there is reason to dig deeper (Dörnyei, 2007). Brinkmann (2014) argues that there are several benefits to semi-structured interviews. They offer better use of knowledge producing potentials of dialogues by giving more freedom for follow up on matters that are considered important for the interviewee. Additionally, the interviewer has greater control to direct the conversation towards topics that are considered to be important in relation to the research project.

This study employs the semi-structured interview format. The reasoning for this is that the nature of the research goals wishes to uncover personal experiences from the interviews with the teachers. However, the specter of the research field is too broad to conduct this style of interview in an unstructured format, therefore there needs to be some structure implemented. This study also focuses on different target groups of teachers based on experience and expertise within a certain field of English didactics, namely the use of digital games in the English classroom. For the interview subjects with significant experience or expertise within this field an unstructured interview approach might be viable, but for the teachers with less experience or expertise within this field this interview style would yield less information and the interview could stagnate, as they do not have the in-depth knowledge required to provide satisfactory answers. (Dörnyei, 2007). This was discovered in the piloting process, where the interview guide was tested on both friends and family who work within education on different levels. The interview guide went through several different formats and draft during the discussions with the participants of the piloting and the researcher's supervisor.

The interview guide was designed with some main points, and some follow up questions, in order to ensure that the body of the interviews carries the same line of inquiry through all the interviews (Patton, 2015, p.439). Dörnyei (2007) goes into detail of how a good interview guide should look like. The interview guide should help the interviewer in the following areas: ensuring that each topic that the researcher wants to highlight through the interview is properly covered and nothing is left out by accident, by suggesting appropriate question wording, by suggesting a useful its of probing questions, by offering a suggestion for an opening statement and by listing some comments to bear in mind (Dörnyei 2007)

Dörnyei (2007) suggests that there is a general agreement in literature concerning semi structured interviews when it comes to recording them. For this study the interviews were recorded, using an audio recorder, and then transcribed. Note taking is a demanding process

regardless of if done by the help of electronical means or by hand and will be a distraction in the professional conversation.

3.4.2 Audio recordings and transcription

Dörnyei (2007) argue that interviews should always be recorded due to the fact taking notes is simply not sufficient, due to the fact that the researcher will not be able to catch all the details of nuances of personal meaning; furthermore, notetaking disrupts the interviewing process (p.139). There are a few aspects concerning recording the interviews that needs addressing. Firstly, there is the practical aspect. The researcher acquired an audio recorder for recording when conducting the interviews. However, the sound quality of these recordings was very low, especially when some of the teachers wanted to do the interview over Teams. When recording the interviews, the audio recorder was placed on the table between the interviewer and the interviewee. For those teachers that did not have the possibility to conduct the interview physically the audio recorder was placed next to the speaker of the computer. In hindsight the researcher should have opted for Nettskjema audio capture when conducting the interviews online to capture just the interviews sound, which would have provided better sound quality for the transcription work that followed. Secondly, there is the theoretical aspect. Some interview subjects do not like to be recorded. A small audio recorder is often a lot less antagonizing than a camera which arguably could have given more context if the interview subjects were open to the idea of filming the interview. When only recording the audio of their voices some information such as facial expressions or eye movements are naturally lost in the process (Dörnyei 2007).

After the interviews were completed, the researcher transcribed the interviews to analyze the data. Most qualitative data is transformed into textual form. This study used the intelligent verbatim transcription (Dörnyei, 2007). This transcription methods allowed the researcher to exclude discourse fillers such as uhm, pauses and discourse markers, while still maintain the inerviewees' beliefs and reported practices (Eppich et al., 2019). This approach to transcription allows the researcher to focus on the interviewees' messages instead of how they expressed themselves. This transcription approach was taken to allow the researcher to keep the responses from the interviewees' accurate, in addition to keep translate the responses into a reader-friendly format. The transcriptions are not included as a part of the appendix due ot ethical considerations and confidentiality.

3.4.3 Questionnaires

Questionnaires are one of the most common methods of data collection in second language research. Dörnyei and Taguchi (2011) claim that the main benefit of questionnaires are the ease of their construction and the importance of the participants' anonymity. Brown (2001) in Barnard and Burns (2012) defines questionnaires as "any written instrument that present respondents with a series of questions or statements to which they are to react either by writing their answers or selecting from existing answers" (p.31). Dörnyei (2007) explain that questionnaires are common within L2 research are due to the versatility and the questionnaires capability of gathering large quantity of information quickly. Questionnaires usually contain both closed- and open-ended items (Barnard & Burns, 2012). The questionnaire introduction (see Appendix) consisted of the questionnaire title and some general information about the project, and how they could contact the researcher if they wanted their response redacted or removed. The student questionnaire was answered online through the anonymous version of SurveyXact and consisted of 15 questions, three of which were open-ended. The questions were related to the student's beliefs concerning the use of digital games in the English classroom as well as their own use of electronic devices and their extramural English activities. Dörnyei and Taguchi (2010) suggest that the questionnaire should not be more than 20 minutes to complete. Therefore, questionnaire was made rather short and concise to make it as easy as possible to understand and help the students concentrate to complete the questionnaire. The students also answered the questions in Norwegian and the questionnaire was given in Norwegian to avoid confusion as suggested by Dörnyei and Taguchi (2010). The teacher was also asked to be present when the students were responding to the questionnaire, this was a measure taken to decrease the changes of misunderstandings. If the students do not understand the questions, they could be considered unreliable, which would be a threat to reliability and validity.

Christensen and Johnson (2019) argue that close-ended questions can be divided into different categories. Rating scales, which are used in this study, are the most common items in research questionnaires. Dörnyei, and Taguchi (2010) explains a rating scale as an item that requires the respondent to make an evaluative judgment of the target by marking one of a series of categories organized into a scale (p.26). Dörnyei and Taguchi (2010, p.27) suggest that one of the scales that are commonly being used is the Likert scale which consists of a series of statements all of which are related to a particular target, where the respondents are supposed to indicate the extent to which they *disagree* or *agree*. In the questionnaire, the students were

asked to respond if they agreed or disagreed with certain statements when answering the close-ended questions. One example from the questionnaire could be: "I am positive towards the use of digital games in the English classroom". The response options for these statements were: disagree, somewhat disagree, neutral, somewhat agree and agree. This is an example of a close-ended question where the students were provided with ready-made response options to choose from. Therefore, the students were not required to produce any writing when answering these questions (Dörnyei, 2010). When analyzing the data material from these statement questions they were assigned numerical values so they could be analyzed in a more convenient way. However, the questionnaire itself does not have any numerical scale items, which is when the scale item itself is numerical. An example of a numerical scale item could be if the questionnaire asked the students to rate a statement from 1-10 where 1 symbolized disagree and 10 symbolized agree (Christensen & Johnson 2019).

The open-ended questions provided the qualitative data and offer the respondents the opportunity to provide more detailed answers. An example of an open-ended questions was: "Why do you think your teacher uses or avoid using non-commercial games in the English subject?" This question could also be used as an interview question and gives the students the opportunity of using their own words (Christensen & Johnson, 2019). There were some additional instructions included within the questionnaire when answering the open-ended questions to avoid confusion and preserve anonymity. These instructions asked the students to answer with full sentences and not to disclose something that could reveal their identity. Perhaps it should not be necessary when the targets of the questionnaire are at the upper secondary level, however, by specifying, the researcher avoided the problem altogether. These measures were taken to keep the students' anonymity intact, as well as to provide them with some further guidance to answer the questions adequately. Ideally, the researcher would like to be present in the classroom to explain the survey, however, this was difficult due to the Covid-19 situation as well as the researcher's schedule, making the researcher unable to be present when the students were doing the questionnaire.

3.4.5 Sampling

The teachers were contacted between October of 2021 and January of 2022. They were asked either informally through various contacts the researcher had made during his teaching practice at various schools or formally through the administration. When reaching out informally usually the contact was made through previous teaching practice supervisors. Most of these did not feel qualified themselves or did not fit the criteria for selection. The

supervisors did help find other colleagues of theirs who they would recommend the researcher to contact. When approaching through the administration the researcher would contact the school reception physically and then the reception would either recommend someone for the researcher to contact or find the English section leader and then that person would recommend someone.

I set two criteria for participation in the teacher interview. The researcher wanted to divide the participants into two different opposed categories of teachers. One category would consist of teachers who were recently educated (NE), and the other set would consist of teachers with longer practical teaching experience (EXP). Furthermore, the researcher also tried to find teachers with varying competence in the field of using digital games within the English subject. The researcher managed to recruit six teachers, three with formal training within ICT or educational use of digital games (GE), and three teachers with no formal training in ICT or educational use of digital games (NGE. The process proved difficult, as the schools partly shut down in December of 2021 because the government issued "red level" for upper secondary schools across the country due to Covid-19 infection rates. This meant that most schools only had partial staffing or in some cases less, meaning that both recruitment and conducting the interviews physically would be challenging. Due to this, a compromise was made, and the interviews were mostly conducted on Teams, or physically when possible. The interviews were backed up on an external hard drive within a password-protected zip file in accordance with NSD guidelines. The interviews were audio-recorded with a dictaphone and then moved to store on the external hard drive with the same encryption policies as described above.

For this study criterion sampling was chosen as the most fitting approach due to the nature of the research questions. Dörnyei (2007) explains that criterion sampling is when the researcher selects participants based on one or several predefined criteria. The criteria for this research were that half the chosen teachers had to have some formal education concerning ICT and the use of digital games in the English classroom. This teacher category is referred to as GE teachers. This decision was made to make sure that the teachers could provide competence and knowledge concerning the use of digital games in the English classroom, which would give better data material when coupled with the opposite. This meant that the other half of the teachers did not have much prior experience concerning the use of digital games in the English classroom or had any educational competence relevant for the topic. This teacher

category was referred to as NGE teachers. Furthermore, this study also aims to research the different practices and beliefs of both newly educated and experienced teachers, therefore it was also necessary to select teachers that were either newly educated or experienced. The newly educated (NE) teachers would have less than five years of experience and the experienced teachers (EXP) had ten or more years of experience. Recruitment went quite well despite the challenges presented by doing educational research in the Covid-19 pandemic. The students who were asked to participate in the questionnaire were recruited from the English classes of the teachers who were interviewed. As some of the questions within the questionnaire concerns the teachers and their teaching methods it was necessary that the students were selected from a class the interviewed teacher teaches or helps facilitate. This can be categorized as non-probability criterion sampling. According to Cohen et al. (2007, p.127) there are two different sampling strategies: probability and non-probability sampling. While probability sampling is random selection participants, a non-probability sample selects a specific portion of the population that have the opportunity to participate. Dörnyei (2007) also mentions Kemper et.al's (2003: 273-4) conclusion which is that scholarly decisions may be driven by theoretical concerns, but when theory meet the harsh reality of time and resources sampling issues almost always force pragmatic choices. This was most certainly the case for this study as well, not only when it came to recruitment, but also for how the interviews were conducted as some of the teachers could only find the time to participate through online interview.

3.5 Ethical considerations

This section aims to describe several ethical considerations that have been taken into account in the present study. Educational concerns people's lives and thus involves ethical issues (Dörnyei, 2007, p.63). Dörnyei argues that in a mixed methods studies there is a likelihood for the occurrence of ethical dilemmas. Qualitative research historically intrudes more into the human private sphere. Data collection methods, anonymity, confidentiality handling the data material and ownership of the data have been taken into account in the present study.

The researcher needed to apply and receive approval from the Norwegian Centre for Research Data (NSD) in order to conduct research. NSD has high standards in terms of ethical and legal guidelines. There were some ethical concerns were considered before approval. First, informed consent is crucial when conducting studies. (Dörnyei, 2007). The participants must also be informed about the research to know whether they want to participate. (Seidman,

2013, p.64). This was the case for the students. The teachers had to sign a consent form (appendix C) as they could be separated from the data material. These consent forms were all collected as soon as possible after the interview. The teachers who administered the questionnaire was given oral instructions concerning the administration of the questionnaire, as well as a physical copy of the questionnaire (appendix F) so they give a short introduction and could walk the students through the questionnaire or so that the researcher could answer any questions they might have. NSD had some concerns if the students required a consent form and if the students were truly anonymous. After making some adjustments to the questionnaire, NSD suspended the need for a consent form for the questionnaire, as the students would be anonymous and therefore did not need a consent form like the teachers required. Furthermore, some additional information was added in the online questionnaire to further guide the respondents and preserve their anonymity and a word limit of 150 word were included in the open-ended question after a suggestion from NSD. After these adjustments, NSD approved the project in January of 2022 based of the documents provided in the previously mentioned appendices. (See appendix A).

One ethical dilemma that the researcher faced had to deal with gender. The response options were male, female and other. Three students picked other. Therefore, these responses were pulled from the questions that took gender into account and reintroduced when they could not be separated from the other responses.

Alle the data were collected using the questionnaire software supported by the university, called SurveyXact. The anonymous version was used for the collection process. The student provided the teachers with direct links that would send the students to the questionnaire. For the teacher interviews an audio recorder was used, and then transcribed to written documents in accordance with NSD regulations. When conducting the interview, the audio recorder was placed in between the interviewer and the interviewee. When conducting remote interviews, the audio recorder was placed next to the speaker of the computer. Confidentiality is an ethical issue which entails that the participants' identity should not under any circumstances be disclosed. The teachers' identities were coded with Teacher 1 (T1), Teacher 2 (T2) etc. The schools' names and any other personal information were not published. Only the researcher had access to the recordings, transcriptions and signed consent letters, and all digital information was kept in a password encrypted hard drive. All data materials were deleted when the project was finished.

3.6 Validity and reliability

Cohen et al. (2007) argue that validity is a key element to any effective research, because if a piece of research is invalid, it can not be used in the research. Furthermore, Cohen et al. (2007) explain that the threats to validity and reliability can never be fully erased, however these threats can be reduced if the researcher pay close attention to validity and reliability concerns throughout the duration of the research. Cohen et al. (2007, p.144) suggests that reliability and validity can be achieved through honesty of respondents, the richness and scope of the data, triangulation, careful sampling, and appropriate instrumentation. Dörnyei (2007) argues that there is a consensus amongst researchers that they must continually strive to assess and document the legitimacy of their findings. Furthermore, Dörnyei (2007) explains that these terms are mostly refer to empirical studies, as qualitative studies are always to some extent inherently subjective as the researcher interprets the findings. Dörnyei therefore argues that "truth" is a relative concept, as what can be true for one researcher may not be true for another.

Research validity concerns the whole process and is separated into two main categories, internal validity, and external validity. (Dörnyei, 2007) A research study demonstrates internal validity if "the outcome is a function of the variables that are measured, controlled or manipulated in the study" (Dörnyei 2007, p. 52). Therefore, "findings of a study are internally invalid if they have been affected by factors others than those thought to have caused them" (Dörnyei, 2007, p.52) External validity, according to Dörnyei (2007) refers to "the extent to which we can generalize our findings to a larger group or context" (p. 52). Based on this explanation, a study is externally invalid if the results or findings only apply to unique sample in which they were found (Dörnyei, 2007). In this research piece, the external validity is challenged because it aimed to investigate particularistic findings of teachers' and student' beliefs instead of findings which could be generalized. The sample size of all the different groups which this research aims to compare are inherently too small to accurately represent the larger groups which they claim membership to.

Reliability refers to the degree of consistency within a study (Dörnyei, 2007). Morse and Richards (2002) in Dörnyei (2007) argue that reliability requires the same results would be obtained if the study were replicated (p.57). In the present study, significant measures were taken to maintain the reliability of the study. The researcher made an interview guide which were piloted in advance of the interviews on two different family members who also work as in-service teachers. This were done to make sure that the questions within the interview were

clear. Some changes were made due to their feedback. They reported that some of the questions were redundant to the research and could be revised. The teachers who were interviewed received information about the topic in advance of the interview, but the teachers did not get exact information, such as to which questions, they would be asked or which themes would be discussed within the interviewed, but they were informed about the overarching main theme of the present study. The researcher tried to ensure authenticity. To accomplish this the researcher tried to remain neutral during the interviews, and to avoid expressing personal beliefs and asking leading questions. The teachers participated anonymously and were not paid or given other incentives to participate, meaning they did not participate to gain anything personally or receive recognition from their participation in the present study.

The student questionnaire which was administered to the students of the teachers that participated in the interviews consisted of mostly close-ended questions, but also a few openended questions. The open-ended questions can also serve to cross-check validity of responses (Brown, 2009). In this way the participants were given the opportunity to add more information to enrich their responses. Furthermore, the students were also specifically asked not to give away any information that could take away their anonymity in accordance with NSD regulations. The researcher did not meet the students which participated in the study. This decision was mostly made because of Covid-19 considerations, but in an ideal setting this could have been done differently to avoid any confusion the students might have when answering the questionnaire. According to Barnard and Burns (2012), several scholars have argued for the necessity of a pilot to avoid ambiguous questions and to check the feasibility of procedures. The student questionnaire was therefore piloted by a class of VG2 students administered by a colleague. The feedback was collected by the researcher's colleague. The students which took part in the pilot reported that the questionnaire was clear, and no further changes was required.

4. Results

4.1 Introduction

In this chapter the results from the teacher interviews and student questionnaire are presented. Section 4.2 reports the findings from the teacher interviews. This data provides information about their beliefs and reported practices concerning the use of digital games in the English classroom. The sub sections are ordered in the same manner as they were given in the interview. Section 4.3 report the results from the student questionnaire. This data provides information concerning their use of electronic devices, gaming, and their beliefs regarding the use of digital games for English language learning both in and out of school. The sub sections are ordered in the same manner they were presented in the questionnaire.

4.2 Teacher interviews

This section is divided into six sections. Part 4.3.1 is the introduction where there is a summary of the recruited teachers and their respective professional backgrounds. Section 4.3.2 is their respective framework factors at their place of work, which revolves around question 2 and the corresponding sub questions from the interview guide. Section 4.3.3 covers the questions concerning digital games in the classroom and reported practices which covers question 3 and 5 and the corresponding sub questions from the interview guide. Section 4.3.4. Covers the new competence aim and the teachers' respective practices and experiences concerning the aim which is question 4 and corresponding sub questions from the interview guide. Section 4.3.5 covers the teachers' beliefs concerning digital games in the English subject which covers question 6 and the corresponding sub questions from the interview guide. The final section 4.3.6 covers the teachers' beliefs about their students' views and practices which covers question 7 and the corresponding sub-questions from the interview guide.

4.2.1 Introduction & Background

The teachers were divided into four different categories. There were three teachers recruited who had background using digital games as a tool, there were also three teachers who were not used to using digital games as an educational tool in the English subject. Three of the six teachers who were recruited also were newly educated teachers, meaning they had less than five years of working experience. The other three teachers who were recruited had five or more years as in-service teachers. Furthermore, the following abbreviations will be used for this point onwards in when presenting the interview data.

Table 1	RQ1: Beliefs about the use of	RQ2: Reported practices in the English
	digital games in the English	classroom
	classroom	
Teacher 1 Male,	Held generally positive beliefs.	Had educational and practical
GE, EXP, VC	Focused a lot on motivational	experience using digital games. Used
	aspects.	digital games occasionally. Reported
		good results for both subject learning
		outcomes and motivation.
Teacher 2 Male,	Was skeptical of the practical	Had a little experience using digital
NGE, EXP	uses of digital games. Main	games and had limited success.
	concern: Time spent on making	Reported that the learning outcome for
	the digital games work	the students were limited, but positive
	according to plan.	outcome for motivation.
Teacher 3	Held generally negative	Had very little experience using digital
Female, NGE,	beliefs, but this was mainly	games but had completed a few sessions
EXP	caused by inexperience with	before the interview to form an opinion.
	the media. Main concern: Did	Reported increased motivation, but
	not hold enough knowledge of	limited learning outcome. Reported that
	how it could be used in a	her inexperience with the media could
	constructive way.	be the reason for this.
Teacher 4 Male,	Held generally positive beliefs.	Had significant practical, and some
NE, GE, VC	Focused more on opportunities	educational experience using digital
	that the media presented.	games. Reported positive results for
		both learning outcomes and motivation.
Teacher 5 Male,	Held generally positive beliefs.	Had significant educational and some
NE, GE	Focused more on the	practical experience using digital
	opportunities that the media	games. Reported positive results for
	presented	both learning outcome and motivation.
Teacher 6	Held generally positive beliefs.	Had some practical experience using
Female, NE,	Focused a lot on motivational	digital games. Reported some
NGE, VC	aspects.	improvements for both learning
		outcomes and motivation

T1, T2 and T3 were experienced teachers. They each had at least nine years of being inservice teachers. T4, T5, and T6 were newly educated teachers with less than 5 years of teaching experience. T1 and T4 also had university levels of education within IT subjects. T5 also had their MA-degree written about using a digital game in the English subject. Therefore, T1, T4 and T5 were considered as GE teachers. All but one of the teachers were under the age of 40, which means that from a theoretical standpoint more of them could be perceived as technological natives, but for the purpose of this study the distinction T2, T3 and T6 will be considered non-technological teachers (NGE) because they had no formal education that involved the use of digital games in an educational setting, like the other three teachers had. Furthermore, half of the teachers were teaching vocational classes. This is not directly impactful for this study beyond that it illustrates that the data material collected from both the student questionnaire and the interviews covers a wide variety of both teachers and students.

4.2.2 Contextual factors

Contextual factors or framework factors are the resources available to the teacher directly, but also the students. These kinds of resources could be anything from computer rooms to digital game libraries. The resources available to the students are also important as it impacts what kind of lesson plans the teachers can develop.

All the interviewed teachers reported that their students had either a computer, Mac, or a Chromebook available for all their sessions. The county does not provide clear guidelines, however some of the programs incentivizes the students to pick a Mac or a Windows computer as some of the software is preferred by the program. T2, T4, T5 and T6 said that they had computer rigs available to the students. Computer rigs are a certain number of preprogrammed computers along with other necessary gaming equipment, such as keyboards, mouse-clickers and headsets, which the students can use for educational purposes. T4 was the only one who was clear that the computer rigs were used for educational purposes and available to all students. T2, T5 and T6 said that the rigs were either there for program specific classes or for social purposes. T1 and T3 said that they had no specific computer resources beyond what the students had with them to class. Furthermore, T6 said that the computer rigs were not meant to be used for digital games, but for other coursework in program specific classes.

All the interviewed teachers also reported that they had either whiteboards or large screens in combination with projector in their classroom to share their screens with their students or show coursework materials in front of the class. Additionally, T2 and T5 also reported that

they had some sort of "Makerspace" available for the students. "Makerspace" is an area that typically has equipment such as 3D printers, laser cutting or similar equipment that are available to all students at the school. Most universities have something similar, and it has become increasingly popular for upper secondary schools to provide their students with a similar option in some form or another. However, both T2 and T5 are schools that have the IT & Media programs, which is probably why they have invested in.

Overall, the teachers were quite happy with the resources that were available to them, despite the difference in equipment that were available to them. T1 and T2 also had some concerns regarding the lack of an overall guideline concerning the machines the students could choose from. Both T1 and T2 had more experience with computers using the Windows operative system. Therefore, it could be challenging to help students who used either Chromebooks or Macbooks. Both reported that this was a point of frustration for them when using software that potentially could malfunction or behave differently depending on what operative system that ran the software.

4.2.3 Digital games in the English classroom and reported practices

When asked: "Why are you using/or not using gaming/digital games in your English classes?", all the teachers interviewed reported that they had at least attempted to use digital games in one form or another in their English classes. T3 admitted she would not have done so unless they knew they were participating in this project, therefore tried to implement a couple of sessions to better answer the questions of this study. T2 also reported that he shared a class of students with another teacher, in which they had tried to use digital games. T3 reported that he had chosen to not use digital games when they were teaching his own classes. T2 explained that when they had their own class, they struggled to justify the time spent on the game compared to the learning outcome. T3 explains why he chose not to use digital games: "Despite my background as a gamer, when given the option I choose not to do this sort of thing, mostly because of the time constraints imposed on me." (T2) Furthermore, T2 also reported that they had not chosen to have a larger focus on games because not everyone plays games amongst the teenagers.

Additionally, T2 also reported: "I struggle to justify the time spent on the games; the learning outcome does not seem to match the time spent on the game. I also struggle to identify the learning outcome of the game that is related to the competence aims in the curriculum." (T2). T3 also argued similar points to T2, especially concerning the struggles to identify the learning outcome of the digital games that would be related to the competence aims. T3 had

more concerns regarding how to utilize the digital games correctly due to her inexperience with the digital games. T2 on the other hand had identified himself as a gamer, which in turn allowed him to have the knowledge of how different games worked.

The teachers also reported that they used digital games for variety. T1 and T6 reported that they taught mostly vocational classes, which meant that their students had motivational challenges. T6 argued that she used digital games for variety and motivational purposes: "It needs to be good variety, not just any variety. I could bring them something different every week, but that does not mean that they would enjoy it. So, it has to be good variety." (T6). T1, 4, and T5 also agreed that the motivational aspects of digital games were a main reason for why they used digital games in their teaching practices. T6 further argued that the one of the key aspects of digital games for their teaching practices were that the students would not think of the session like conventional coursework, which several of her students had a negative association to. "I always tell my students that I will "trick" them into learning" (T6).

Another key reason why the teachers argued for the use of digital games in the English classroom was for the immersion aspect. T6 argued: "Experience is a different kind of learning than theoretical learning.". She went on to argue that especially for the vocational classes that she was teaching a practical approach felt more meaningful for her students. She pointed out that her students typically responded positively when they got to try something out for themselves instead of reading about it.

T5 also argued that: "They are engaging, and they are familiar for the students. I feel like the platform for gaming is growing. It is a different approach to experiencing a story or a literacy compared to reading it. They get to experience the story on their own."

T1 and T4 also echoed the points made out by T2 and T5 concerning the immersion aspect of the games. T2 was not opposed to the notion that games were immersive and that was one of their strengths. T2 believed that for the students to achieve this immersion, they would have to spend a long time playing the digital game. When comparing the time spent on the exercise, this would not give a satisfactory learning outcome when considering the amount of time that would have to be invested into a project like that.

When discussing what parts in the English curriculum digital games could be inserted into there were some different opinions. T1, T2, T4 and T5 argued that digital games could easily be implemented as a substitute for a literary piece. T3 was not sure, at first, but after some afterthought they also concluded that substitution a literary story with a game could be one

way of implementing games into different curriculum aims. T6 argued that digital games are so diverse they could be implemented into several parts of the curriculum. This was supported by T1 and T4. T2 disagreed with the arguments made by T6, by arguing that he could not see how digital games could be inserted into working with academic writing in a natural way.

The teachers were also asked to report on which digital games they used. They reported that they used mostly games that were either non-commercial or substitutes for literary works. Titles such as Gone Home, What Remains of Edith Finch, This War of Mine were just a few of the titles that were commonly referred to by several of the teachers for substitutes for literary pieces. T1 explains: "These games are in a sense walking simulators. They do not lean very much on to the gameplay aspect but lean much more on the storytelling and narrative aspect." Other titles the teachers referred to were non-commercial games such as *PlaySpent* and *We* become what we behold. Almost all of the teachers also reported that they had experience with Keep talking and nobody explodes. This was the one notable exception, as this title is leaning heavily on gameplay, but contains very lite narrative elements. However, all of the teachers were using this as a game to build oral activity in classes that had more reluctant speakers and acknowledged that the game itself had very limited connection to subject material from the curriculum. The game revolves around defusing a bomb. One player can see the bomb, another player can see the instructions, meaning that the vocabulary that will be necessary is rather niche and for most purposes the oral activities are the most important, not the game specific content. T2 argued that the game could have some therapeutic properties for reluctant speakers in particular, but beyond that and promoting oral activity, the game itself did not yield anything of value. T1 was more positive, but T1 also taught students who struggled with motivation, therefore T1 recognized that they valued the properties of this game more because it was helpful for their specific pedagogic and didactical situation.

When asked to account for one time that they had used digital games in their English classroom, the teachers had many different accounts. T1 had used the game *What Remains of Edith Finch* in a setting where they had to first play the game over several sessions and take turns playing on a projector in front of the class. Afterwards they were given assignments. As a conclusion to the project the students were supposed to either give an oral presentation on aspects of the game or have a subject conversation with their teacher about different aspects of the game. These subject conversations were graded and evaluated as an oral presentation. T1 reported that the game would take about two sessions to complete. The impression overall was quite positive, but T1 recognized that this was perhaps not the ideal way to conduct the

playthrough of this game, as it allowed some of the students who were not playing at the time to zone out, taking away the engagement which according to T1 was one of the primary strengths of the digital game media. T1 also thought that some of the students may have learned more if they worked with a traditional written novel, but that would have taken significantly more time with this group of students.

T2 reported that the students were very motivated and had a high level of engagement with the game. The main learning outcome of the game was the emphasis on communicational skills. T2 reported that they initially had some technical difficulties that took away a sizeable part of the session while they worked out how to remedy the issue. The students reported that they enjoyed the session despite the technical difficulties. The takeaway from the lesson was a bit unclear for T2, besides that the students learned to cooperate and helped promote oral activities in an informal setting. T2 argued that the conversations that ensued from the games were more organic and lifelike, because there were more back and forth within the game. Therefore, the conversations were more natural. T2 elaborated that normally they use either teacher or student presentations, but those are more static and less dynamic.

T3 had just started to experiment using digital games to prepare for this project. T3 had attempted to use the game *Play Spent*. T3 acknowledged that the digital game did what she had envisioned, but she also reported that their own lack of experience in the teacher role when using a digital game was disadvantage in hindsight. Therefore, T3 reported that it did not work properly as they did not see what the takeaway from the session were. T3 also made the case that they had barely scraped the surface of what this game was supposed to do and tried a learning by doing approach which did not work to their satisfaction in the first attempt. Furthermore, one of the main properties of *Play Spent* is the ethical deliberations that the player must make. T3 reported that some of her students got a bit lost in playing to win, instead of actually playing the game as intended. T3 reported that the students liked the session, however, she also argued that she was not satisfied with the learning outcome from the session.

T4 had used a game called *Inside* and its predecessor *Limbo*. Both games are similar when considering the plot and character development. *Inside* had a significant upgrade in terms of graphics compared to *Limbo*. T4 had instructed the students to play the game and then use the same tools that they had worked on to analyze a novel in a previous session. T4 reported that the students experienced significantly increased motivation. T4 helped teach several classes,

and especially, the vocational classes that had students which did not normally have motivation for conventional coursework assignments turned in two pages of text instead of their normal half a page. T4 had also helped instruct other teachers at their school on how to use this game in an appropriate way and thus were happy with their progress. One remark that T4 made was that he consciously chose to involve himself as little as possible. He did not help the students much because he wanted the students to work together and communicate in English if they got stuck in the storyline and needed help to progress. Therefore, they only got one "lifeline" from the teacher where he would help them along.

T5 similarly to T4 used a game called *Gone Home* as a substitute for a novel. T4 described the game as a "game-based novel". The students got to play the game individually and had to give an oral presentation at the end of the project. In this oral presentation the students could choose to focus on either character development, plot development or social issues. *Gone Home* deals with some controversial topics, such as homosexuality, child abuse, and alcohol abuse. The students reported that they felt more connected to the story by playing it. T4 reported that they thought the students could have extracted the same learning outcome from reading a book, but T4 also acknowledged that digital games may also express topics and issues in a special way compared to written books. However, they had already read a book, so the digital game was also introduced to utilize a different media and the different experiences that comes with a different media.

T6 had yet to implement a specific session for a digital game at the time of the interview, but she had used a game about fake news. The students had to identify which articles were fake news and which were real news. A lot of the students were surprised when they learned how real fake news could look. The learning outcome was that the students should not take everything at face value without asking critical questions. T6 reported that the session went well, it was both fun and educational. The students also had the option to choose to work with this game, as a part of an "assignment buffet". Most students chose to work with the game. T6 reported that using the digital game was a good way of adding to the theme they had worked on. This was not the only activity they had for that session, but the digital game was one of several ways to add depth to the topic they had worked on.

When discussing the commercial games and the non-commercial games T1 argued that they had used some commercial games. The selection process was mostly down to that he had previous experience with these games from beforehand, and therefore could include them in

their teaching practices. T2 had more emphasis on the time required to play the commercial games.

T2 argues: "I find that playing video games can be used to improve language skills. Its just that using video games for that purpose is not very efficient. The issue is that there may be several hundred hours of gameplay from start to finish. On that basis I find the non-commercial games better for teaching because they are more efficient and made towards a specific audience. The learning outcome for the commercial games are not equal to the time spent on the game". (T2)

T2 concludes that he would not use a commercial game in their classroom unless there is a specific sequence from a game that could be easily extracted to illustrate a point, in the same manner that one could use a video clip. T1 argues that non-commercial games are made for teaching one concept. "Since the non-commercial games are not meant to be entertaining, they usually are not, which weakens one of the main strengths of the digital game media." (T1). However, T1 also agrees with T2 to some extent in the sense that the non-commercial games are easier to adopt into classroom practices and require less preparation for teachers because they are shorter and to the point.

T6 expressed her concern how students could also get lost in the entertainment part of a digital game. T6 continues explaining that the students may as a result be unable to take away what the teacher intended them to take away from the class. The non-commercial games on the other hand are very centered around what you are supposed to learn. T6 argued when using a commercial game, the teacher must guide the students towards see the relevant part of it. If you know your students from before, this is significantly easier, if you do not know them that could prove to be difficult. T3 agreed with the points made by T6, her experience was that the students did not properly register the importance of their actions when they were playing digital games. T3 expresses her concerns that her students struggle to convert what is happening on the computer screen into a learning outcome.

"When students work on paper and there is this whole visual aspect and work in a systematic way, I think that they get more out of it compared to when they work on the computer. Students will tell me that they find it easier to read on paper compared to the computer and that they do not remember as much when reading on the computer so I just feel like there is more learning on paper. When you are paying out cash from

your hand you feel that visual aspect much more compared to these days when we just swipe our cards or click on our computers. "(T3)

T4 reported that he only used commercial games. T4 argued that the commercial games are a cultural object, and from his point of view that is more in line with the intended goal of the curriculum. T4 expressed that his teaching practice is more centered around the development of new lesson plans and was one reason why they discarded the non-commercial games, as they left little to no room for creative interpretation for how the game should be used. There was already an intended way for that game to be used, and therefore T4 did not see how they could add something to that. Additionally, T4 argued that the non-commercial games also held little to no cultural value as it was not a cultural artifact in the same way that a commercial game that are open to anyone to play and interpret, while the non-commercial games were already pre-digested. T5 also argued for the cultural aspect of the commercial games. T5 points out that the non-commercial games do not feel authentic, because they are not trying to guide people towards a specific opinion about the game. T5 also echoes T4's arguments concerning how the commercial games leave more room for both teacher and students to interpret it. T5 points out that this notion could be different depending on the learning objective of the session. T5 explains that if the objective is to strictly learn the facts, then it could be helpful to utilize a non-commercial digital game, but if we are training our interpretational skills the non-commercial digital games leave a lot to be desired.

4.2.4 New competence aim (LK20)

When asked about their opinions a few patterns emerged. T2 and T3 had more negative beliefs, while T1, T4, T5 and T6 had overall more positive beliefs concerning the aim. There are also reports about a difference in the interpretation of the aim between the teachers. T1 and T6 have different interpretations concerning how digital games should be implemented.

When asked about their opinions on the new competence aim from LK20, the teachers had different opinions on several points of the aim. The aim in question is:

"discuss and reflect on form, content and language features and literary devices in different cultural forms of expression from different media in the English-language world, including music, film and gaming" (LK20, 2020).

T2 argued that they found it being one of the more difficult aims to implement. They pointed out that there is a difference in the translation between the Norwegian version of the aim and the English translation. In the English version they have added language features in addition

to form and content. T2 found it strange that the LK20 designers would embellish the English translation to reach wider than the Norwegian version of the aim. T2 said that both they and their colleagues found it difficult to understand what the students were supposed to learn from the aim. T2 also found it interesting that the creators of LK20 have chosen to implement gaming, when not every student is playing digital games, which would force them to develop competence within a media which they do not enjoy. However, T2 recognized that for most teenagers they would find this competence aim quite nice to work with and most students would most likely enjoy these sessions. T2 concluded that the aim is both interesting and groundbreaking.

T1 reported that he liked the aim. T1 reported that it is not as heavy handed as forcing teachers to use all the media listed. "I think that one would not arrest English teachers that are not using digital games in their teaching practice". (T1) T1 furthermore believed that the aim is a nice encouragement to teachers who are not currently using digital games in their practices to make the leap to do so. T6 however, reported that they had to use digital games now, so they were under a different impression than T1. T6 reported that she believed the aim was a valid addition.

"It shows that we are updated and linked into the experience of the students we are teaching. Gaming is a big part of everyday life of our students. I use gaming to get a connection to my students, I think it is important that we are now unlimited as to which media we choose to use in our teaching practice. I can understand that some of the teachers might feel forced to use games and I understand that it might feel difficult for some teachers to implement this into their practices, but I believe that it is tour benefit to evolve alongside our students." (T6)

T5 also shared the views of T6 that some teachers might feel forced to use digital games in their practices. However, T5 also argued that introducing this new media is not as scary as some of their colleagues might think. T5 argued for a learning by doing approach and to "jump in" and not be afraid of failure when trying the new media out for the first time. However, T5 did not place much emphasis on the cultural aspect of games, but mostly saw the digital games as a new tool for their toolbox. T5 also argued the importance of teacher qualifications when implementing a game. T5 explained that there seems to be a bigger steppingstone for some of their colleagues was the fact that they had to find a game, learn the game, and understand how the game was supposed to be used in an educational setting. That is something that even experienced teachers and gamers alike could find difficult. T5 for those reasons had helped instruct other teachers from their school.

T4 had a different approach to the aim compared to T5, as they focused more on the cultural aspect. One of the main things he taught the other teachers at his school was that gaming is a cultural thing. T4 argues: "Gaming has now become comparable to the movie and music industry and is such a huge cultural thing for the children and young adults now that we cannot ignore it." T4 emphasized that we as teachers should not use digital games just as a tool but learn more about the cultural aspect of digital games. T4 also argued that they understood that the barriers to entry for using digital games for teachers who were not familiar with the media was the time constraints as it demands a lot of the teachers to get to know the media in a satisfactory manner so that that they may properly teach the students in what way they should play the game.

T3 argued that even if using digital games was neither of interest nor within her skillset she would have to try since it is now within the curriculum. T3 argued that they felt uncomfortable to teach and implement gaming in their teaching practices. She understood that it was necessary to an extent, but they also felt that there were much more important things for the students to learn than interpreting digital games. Furthermore, T3 argued that her impression of the aim was that it was implemented as something populistic for the students and therefore seen as a phenomenon that was created by the newest trends within English teaching, or teaching in general, rather than the notion that digital games were that useful in their own right compared to other working methods. T3 also acknowledged that the inclusion of digital games could serve a purpose for diversity and variety but held little faith in the media based on its own merits.

When asked if they had received training concerning how to use digital games most of the teachers reported that they had very limited training concerning how to build their own lesson plans and implementing their own games. T1, T2, T4 and T5 reported that they had taken some courses orchestrated by their employer. These courses were mostly reported to be examples of games that could be used for educational purposes and how they may be used, but it was a simple selection. T1, T4 and T5 were happy with the outcome of the courses, while T2 reported that the people who held the course did not convince him about the concept they were trying to sell them. T1, T4 and T5 had taken active roles in teaching their colleagues about how they could use different games in an educational setting, while the other three teachers said that they had no leading figure concerning the use of digital games amongst their colleagues.

4.3.5 Teacher beliefs about digital games in the English subject

When asked about their beliefs concerning the use of digital games in the English classroom T1, T4, T5 and T6 reported that their beliefs were overall positive. T2 and T3 were a bit more negative, based on their experiences. T2 and T3 would not label themselves as negative, but rather skeptical. T2 believed that the inclusion of digital games could be a short-lived phenomenon, as he explained he had seen similar things with previous technology who had failed to live up to expectations.

T2 argued:" I think I might be more on the critical side compared to some of my colleagues. I see using video games in the English classroom as a fad. I think it caters a bit too much to the student's interest. I think it has something to do with that I have been involved in discussions with ambassadors of video games. I have always been sort of the critical voice in these discussions. I have yet to be convinced by someone who knows video games and teaching. There are a lot of false prophets praising video games in my opinion. With the exception of the games I have mentioned, which are short and to the point with a clear and defined learning outcome, I do not see the point." (T2)

T3 beliefs aligned with T2 concerning how she was unimpressed by the use of digital games in the English subject. T1, T4, T5 and T6 had a more positive outlook, but they also shared some of the concerns regarding the uncritical use of digital games. They all believed that the teachers need to have knowledge of digital games before implementing them for the digital games to work as intended. T5 argued that the main emphasis needs to be on what information you want your students to extract from the game, not on the game itself.

When asked about what their colleagues thought about the use of digital games the teachers all had different answers. Most of them reported that they had some colleagues who were more skeptical and some who were more positive. T1, T4 and T5 all had influence on the implementation of digital games at their schools in different capacities. T2 said that there were plenty of teachers who had "jumped on the bandwagon" concerning the use of digital games. T1 and T6 said that most of the teachers they interacted with in their own departments were mostly positive, but also reported that they did not have significant experience with digital games. T4 reported that his colleagues were more skeptical, but most of them also had given positive feedback after attempting to implement different games into their own classes. T5 reported that his colleagues were overall supportive of digital games, but also argued the same as T1, most of them did not have a large amount of experience in the matter. Several of

the teachers, most notably T2 and T3 argued that the younger teachers generally were more inclined to introduce digital games within their own teaching practices.

T5 reported that he had several colleagues who were uncertain about how to implement new digital games in their teaching practices. T5 recommended them to try out games themselves, the first time he had tried to implement a new game himself. T5 recalled that it did not go as well as he had hoped, but that is the nature of learning new skills, it does not always come out perfect the first time. T5 argued that it was perhaps easier to start out with a smaller digital game and work on bigger projects down the line. T4 aligned with the views of T5. He also found that a lot of his colleagues were enthusiastic about the possibilities that digital games could provide but tended to not take initiative to construct their own lesson plans. However, they were more than happy to try something new if they got a lesson plan readymade.

At this stage the interviewed teachers were given two statements:

Statement 1: "It is primarily young newly-educated teachers that are using digital games in the English subject?"

Statement 2: "Age is not an important factor for which kind of teacher uses games in the English subject, personal interest is more important."

The interviewed teachers were then asked to choose the one they felt were more accurate. Most of the teachers agreed with the second statement, arguing that they had older colleagues who had adapted new technology into their teaching practices, both in the English subject and otherwise, but they all agreed that as a general notion, the younger and newly educated teachers were more inclined to introduce digital games in their classes as a general principle. They all also agreed that both statements had some truth to them. They all agreed that the second statement was truer, but that the truth of the proposed statements was somewhere in between. When asked about which was true for their colleagues the teachers were split. Some reported that the first statement was truer for their colleagues, while others reported the opposite. T5 argued that while he generally agreed with both statements to a certain extent, he found that the second statement was the truer based on his own experiences.

T4 argued that he found that that both statements had a certain merit, he found that in his experience that mostly newly educated teachers who were using digital games in the English subject, based on the colleagues he has had approach him for help with their own lesson plans and how they could integrate a digital game into their session. T3, while still agreeing with both statements, argued that in her experience age was more prevalent because age also

shaped personal interest, therefore if you are younger, you are more likely to have certain interests. T6 argued that both statements were equally true, but for her own part she argued that personal interest was more important and more fitting for both her and her colleagues.

The teachers were given another statemen and asked to provide their thoughts on this statement: "The use of digital games at home improves the L2 language skills of children/young adults". The consensus between all the teachers was that the use of digital games can improve the L2 language skills of young adults. However, most of the teachers also pointed out that other media are equally important, other perhaps more, such as music and social media. T2 argued that his own personal experience also corroborated the study done by Sundqvist and Sylvèn (2016). He explained that playing video games sparked an interest in English language which had an important effect on his life. The same was also true to different capacities for T4, T5 and T6 who all shared similar experiences in their youth. T1 argued that the statement might not be true for everyone, as some of his students were more inclined to play digital games to enjoy the process of playing the games instead of understanding the message the digital game was trying to convey.

T5 argued that the connection that a student gets from experiencing something within a game helps to build a bridge towards understanding. This can be as mundane as learning new names for furniture in *The Sims* or learning more advanced vocabulary from a medieval setting from *Skyrim*. Furthermore, T5 pointed out when students are exposed to online gaming, they are put in a situation where they must speak English in order to achieve their objectives in the game. T4 agreed with the sentiments made by T5 concerning the online gaming aspect. T4 reported that he found that especially the oral proficiency of male students was significantly better due to the amount of online gaming they did. T3 agreed to a certain extent with the statement. She argued that while the vocabulary gains were somewhat lackluster, playing digital games, especially online digital games, as an EE activity usually meant that they became more willing to contribute orally in the English classroom. T6 reported that her students had managed to build both vocabulary and oral skills. T6 had discussions with her students about their relationship to the English subject. T6 reported that several of her students said that they did not encounter much English outside that of digital games and music.

4.2.6 Teachers thoughts on students` beliefs

When asked what beliefs the teachers thought their students had concerning the use of digital games in the English education a few patterns emerged. All the teachers believed that most of their students would experience increased motivation when encountering digital games, but there seems to be some indication that some students require mot interaction with digital games to benefit from this.

T2 argued that he believed that some of his students would argue that using digital games in class can help them improve their language skills, but most would also recognize that they can not spend all their lessons playing digital games as this would not give them the necessary skills according to the curriculum. T2 also reported he had students who did not have an interest in digital games and concluded that it would be a contested question among his students. T1 reported that his students would be overall positive as they understood digital games as "not schoolwork" and thus would be more inclined to participate in sessions that included digital games in them simply for the fact that it did not feel like conventional schoolwork. This was also supported by T6 who also argued previously that she "tricked" her students into learning by presenting the course materials through a media which they normally associated with entertainment. T1 did, however, also argue that this would not apply to all his students. T1 argued that students who struggled with motivation would not receive significant increase or decrease in motivation if he had used digital games just occasionally. He argued that these students would need significantly more use of digital games to get increased motivation from it, the odd session here change their attitude towards school in general. T5 also reported making some observations that some of the more experienced gamers amongst his students did not always enjoy the projects or session where he had implemented digital games as they had more set preferences in digital games and found them boring. T4 reported that most of the students were enthusiastic at the beginning, but this could to a certain extent dissipate when they had to use the game as a tool, and not as an entertainment device. T3 reported that her students were very supportive towards using digital games as an instrument for English learning, however, she questioned if they wanted to use the digital games to actually learn something or if it was just for the entertainment aspect of it and not to understand the learning mission.

The interviewed teachers were then asked to assess the following statements and select the statement they agreed more with:

Statement 1: "Students get more motivation from digital games because they enjoy diverse methods of teaching in the English subject".

Statement 2: "Students get more motivation from digital games in the English subject because they enjoy using a media they normally associate with entertainment."

T1 argued that the variety was more important for his students. Overall, he reported that his impression was that the digital games was more impactful as something else, and for most students would not work as well if it was something they did a lot of as digital games is still based on personal interest. T2 also argued that he agreed more with the first statement, because he whenever one would introduce a new method in the English classroom that you have not used before it will create an interest. The element of surprise is a significant factor in this. Diversity becomes more important. For instance, if we play the same game, like *Keep talking and nobody explodes*, it will not generate the same kind of interest the third, fourth or fifth time using it.

T5 agreed with T2 and argued that the first statement was truer to him because he found that if he kept using digital games a lot they would not be remembered as well. He preferred to use a game called *Gone Home* for larger projects, which really helped the students remember the lessons and experiences. He argued that if he had implemented heavy use of digital games the experience would not last as it would be one of many experiences, therefore breaking the monotony was an important aspect of why he felt the first statement was truer. T4 argued that he could not separate the two statements, and thus argued that they were both equally true, because it would be different from the student's vantage point. Some students would enjoy the media that they were given the information through more than they would value the information that they received, and others would want to use a game as a fresh of breath air in their "daily school-routine".

T3 argued that diversity and variety in teaching practice was significantly more important than any media that she could think of. T3 argued that in her experience in the English classroom she learned that doing different thigs was the best way to go, no matter how well something had worked in class. T6 argued that it was the digital games themselves who gave more motivation, because she could use a different media, but not get the same effect. T6 reported that while variety is important, it needs to be good variety.

When asked their impressions concerning their students screen time, and how this would be a challenge or a benefit for the way they teach English the teachers had different accounts. All

the teachers that were interviewed argued that their students spent a significant amount of time in front of a screen. T1 argued that since his students were so encompassed by social media, it was often a significant distraction for them which caused the students to struggle to pay attention in class. The easy access as the computer had become such a daily tool also meant that it was hard to control if they were doing what they were supposed to do on their computers. T2 also argued that the students spend a lot of time in front of a screen. However, despite arguing that he thought it was a lot of time, he also argued that he thought it was overall acceptable in the context of the society that we live in. T2 argued that he expected his students to have the skills to use computers as a tool, and that the time they spent in front of a screen impacts their progress as English students

T3 argued that for her way of teaching the screens were more of a challenge than a benefit. T3 reported that her experience was that students spent far too many hours in front of a screen of different sorts. T3 corroborated T1 sentiment concerning the distractions of social media as well as the attention span of students deteriorating. Furthermore, T3 argues that their reading skills, their note-taking skills, and their written ability all suffered due to significant overuse of screens amongst VG1 students. T6 also reported challenges concerning the use of different screens, which she suspected could be problematic for their development in English, echoing the concerns expressed by T1 and T3.

When asked if the utilization of digital games could help even out the disparity in grades and percentages within those who play computer games T2 answered that it might be a possibility that since boys are playing more computer games increased use of digital games within education might be able to impact these numbers, but it would have to be at a much larger scale compared to what is happening around him, as it is not nearly frequent enough to measure if it would make any difference. T2 argues that if it is down to motivation, then digital games could make a difference, but if it down to the way we communicate, teach, or the skills we emphasize or that the goals we are teaching are more beneficial towards girls than boys, T2 does not think even heavy use of digital games would help bridge that gap. T1 agrees with this notion, but he also believes that if applied in a clever way, digital games may help to bridge the gap.

T5 argued that in his experience the students who understood the themes of the digital games they had used more often was girls, rather than boys. T5 reported that, despite being more prolific gamers, the boys tended to miss the message and kept getting lost in playing the game instead of understanding the game. T4 argued that the disparity between boys and girls comes

from the fact that girls use their preparation time a lot better than the boys based on his experience. T4 therefore argued that with the same preparation time the girls could probably still outperform the boys in standardized tests. T3 agreed with both sentiments from T5 and T4. T6 argued that doing something will make you remember it better, which in her experience translated better for the learning outcome of boys compared to girls.

4.3 Questionnaire

4.3.1 General background information

There were 104 students that agreed to participate in the questionnaire. The first item in the questionnaire inquired about students' gender. There were 56 male students, 45 female students, and 3 students who selected "other" for gender. For the purposes of privacy rights these students will be left out of any stats comparing genders but will be a part of the total number of students. The responses were also distributed into subcategories such as male students, female students, students who had an experienced teacher (EXP), students a newly educated (NE) teacher, students who had a teacher with formal education concerning the use of digital games in education or ICT(GE), students who had a teacher without formal education concerning the use of digital games in education or ICT (NGE). The student group belonging to a NE teacher had 40 responses, while the students group belonging to EXP teachers had 64 students, the GE teachers had 47 student responses, and the student group with a NGE teacher had 57 responses. Beneath you will find a table with an overview of the statements that students agreed the most with in descending order.

Table 1. Statements:	Mean score
I am positive concerning the use of digital games in the English subject	4.25
I learn more English when I play digital games or use other media	4.23
English media at home compared to at school	
I get more motivated when my English teacher utilizes digital games in	4.11
the English subject.	
I spend too much time in front of a screen	3.88
I think my English teacher has positive beliefs concerning the use of	3.75
digital games in the English subject	
I am learning more when the teacher utilizes digital games in the English	3.4
subject	
We use digital games frequently in the English subject.	2.28

4.3.2 The students' electronic device and gaming habits

The second question in the questionnaire was "how many hours do you play digital games (including computer games, PlayStation, Xbox, cell phone games etc.)." The students were given five response options. These were: less than 3 hours weekly, 3-7 hours weekly, 7-15 hours weekly, 15-24 hours weekly and more than 24 hours weekly. The mean score from Figure 1 (see below) were 2.59 which indicates that the average student uses between 3-7 hours playing digital games weekly.

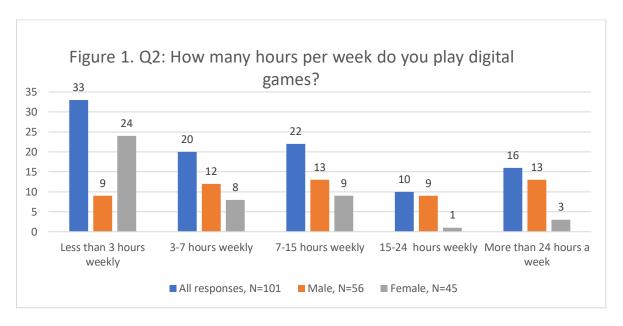


Figure 1 above shows us the overall distribution from all students which participated in the questionnaire. Furthermore, it also shows us the distribution in gender. There were 33 students in total who responded that they played less than 3 hours weekly consisting of 9 male and 24 female students. 20 students reported they played 3 to 7 hours weekly consisting of 12 male and 8 female students. 22 students replied that they played 7 to 15 hours weekly consisting of 13 male and 9 female students. 11 students replied that they were playing 15 to 24 hours weekly, consisting of 9 male and one female student and 17 replied that they were playing digital games more than 24 hours every week consisting of 13 male and 3 female students. These numbers show us that the male students on average spend more time playing digital games at home compared to the female students.

The third question from the questionnaire asked: "Approximately how many hours do you use in front of an electronic device (PC, Smart phone) during a normal week, both in school and at home?" The answers to this question were very different ranging from 120 hours a week to 3 hours a week. As this was an open-ended question there were two male students who answered that they did not know how many hours weekly they estimated they used on

electronical devices, but the remainder of the participants reported the number of hours they spent in front of an electronical device on a weekly basis.

Table 3 Q3: How many hours weekly do you estimate you spend using an electronical device?		
Average from all responses N=99	40.6	
Male students N=54	42.7	
Female students N=45	36.2	

Table 2 above shows the average time spent using an electronical device. Female students reported they spent an average of 36.2 hours weekly in front of an electronical device, male students reported they spent an average of 42.7 hours in front of an electronical device, while the combined average for all participants were 40.6 hours weekly. Table 2 in combination with Figure 1 indicate that the male students spend more of their time in front of a screen gaming, while female students prioritize differently, but still have a significant number of hours in front of a screen, but their time is mostly spent doing other activities than gaming.

4.3.3 The learners` reported beliefs concerning the use of digital games in the English subject

This section shows findings concerning the students' views about the use of digital games in the English subject. In this section the findings concerning students' beliefs reported beliefs about their teachers' practices using digital games in the English subject will be presented. Questions 4 through 10 were made as statements and the students would have the option to grade them on a scale of 1 through five. The response options they could select were as follows: 1 – Disagree, 2 somewhat disagree, 3 neutral, 4 somewhat agree, 5 agree.

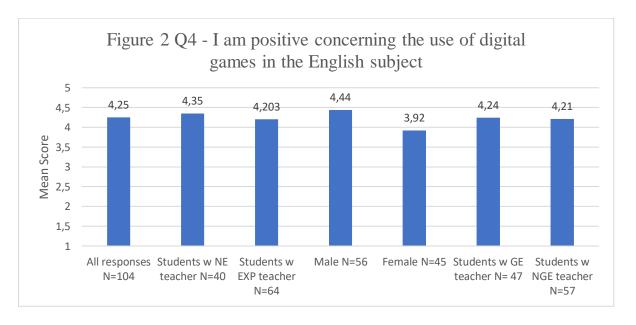
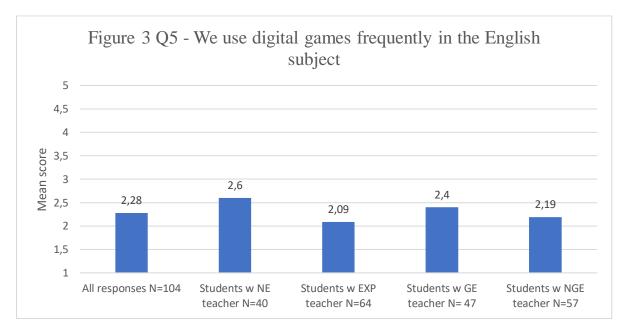
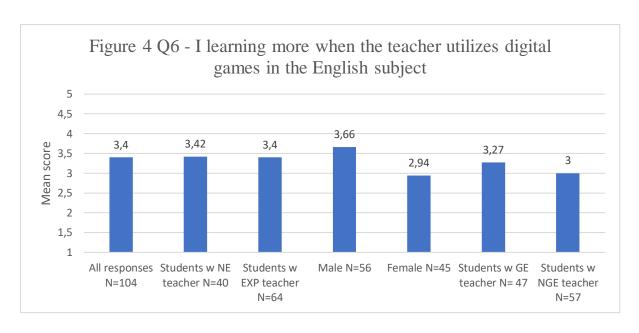


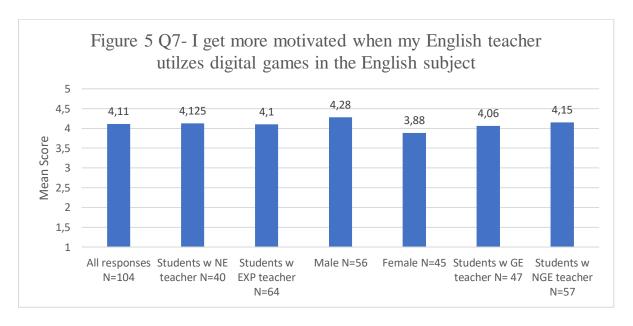
Figure 2 shows the average student responses from the different segments of interest to this study. The statement given to the students in Q4 was: "I am positive concerning the use of digital games in the English subject". Q4 received a mean score of 4.22 of a possible 5. There are some differences within the segments, the most significant difference being that the female students agreed less with the statement reporting a mean score of 3.92. The male students agreed the most with the statement reporting a mean score of 4.44. There was also some minor difference between students NE and EXP teachers. The students who had an EXP teacher had a mean score of 4.2, while students who had a NE had a mean score of 4.35. Finally, there were also some minor differences between the students taught by GE teachers and the students with NGE teachers. The students with a GE teacher had an average of 4.24, while the students with a NGE teacher had an average of 4.21.



Q5 gave the students the following statement: "We use digital games frequently in the English subject. Figure 3 above show that the overall mean score from all the responses were 2.28 indicating that most students somewhat disagreed with the statement. The students with a NE teacher reporting mean score of 2.6, the students with an EXP teacher agreed the least with the statement reporting a 2.09 mean score. The students with a GE teacher reported a mean score of 2.4. The students with a NGE teacher reported a mean score of 2.19.

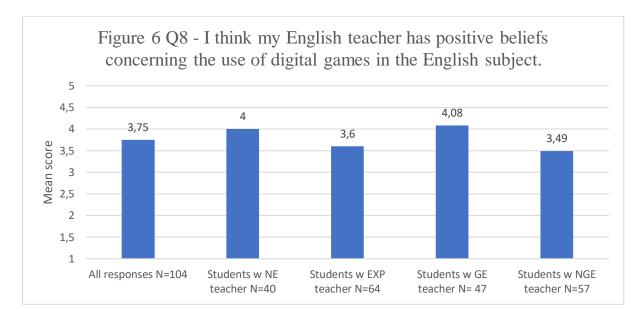


Q6 gave the students the next statement: "I am learning more when the teacher utilizes digital games in the English subject". As we can see in Figure 4 above the mean score for all students was 3.37 meaning that most student had a neutral response to the statement. The two segments that were the most different were the male and the female students. The average for the male students was 3.66 compared to the female average of 2.94. The students with NE and EXP teachers received similar mean scores of 3.42 and 3.4, while students with GE and NGE teachers also received similar mean scores with 3.27 and 3.0 respectively.



Q7 presented the students with this statement:" I get more motivated when my English teacher utilizes digital games in the English subject". The reported average score for all the students was 4.11 which can be found in Figure 5 above, indicating that most students somewhat agreed with this statement. The students with a NE reported a mean score 4.125,

while the students with an EXP teacher reported a mean score of 4.1. The male students agreed the most with the statement receiving a mean score of 4.28, while the female students agreed the least with the statement achieving a mean score of 3.88. Surprisingly the students with a GE teacher reported a mean score of 4.06, while the students with a NGE teacher reported a higher than average with a mean score of 4.15.



In Q8 the students had to evaluate the following statement: "I think my English teacher has positive beliefs concerning the use of digital games in the English subject". Figure 7, displayed above, show that that most students somewhat agreed with the statement with a mean score of 3.75. The students with a NE teacher achieved a mean score of 4, which meant they agreed more with the statement compared to the students with an EXP teacher which achieved a mean score of 3.6. The students with a GE teacher agreed the most with the statement receiving a mean score of 4.08 while the students with a NGE teacher agreed the least with the statement receiving a mean score of 3.49.

Table 4	Q9 - Mean Score	Q10 - Mean Score
All responses N=104	3.88	4.23
Students w NE teacher N=40	4.17	4.42
Students w EXP teacher N=64	3.7	4.1
Students w GE teacher N= 47	4.08	4.29
Students w NGE teacher N=57	3.71	4.17
Male	3.73	4.3
Female	4.11	4.13

In Q9 the students had to evaluate the following statement: "I spend too much time in front of a screen." Most students somewhat agreed with a mean score of 3.88. The students with an EXP teacher agreed the least with a mean score of 3.7 compared to the students with a NE

teacher who agreed the most with a mean score of 4.17. The students with a GE teacher agreed more than the students with a NGE teacher with mean scores of 4.08 and 3.71 respectively. In Q10 the students had to consider the following statement: "I learn more English when I play digital games or use other media English media at home compared to at school (other media entails social media, music, movies or television etc)." The mean score of all responses was 4.23, which indicate that most student at least somewhat agree to this statement. Students with a NE teacher agreed the most with a mean score of 4.42 compared to the students with a EXP teacher who agreed the least with a mean score of 4.1.

4.3.4 Reported practices of what kind of digital games English teachers use and why they use them

In this section findings that concern what kind of digital games the English teachers use and why they use them will be displayed. Q11 asked the students to report what kind of digital game their English teachers used in the English subject. This section will continue using the segments that were established previously, but also contribute with some qualitative data, as Q12 and Q13 are open ended questions. In accordance with NSD a 150 word limit was applied to describe why they think their English teacher used non-commercial digital games (Q12) and commercial digital games in the English subject.

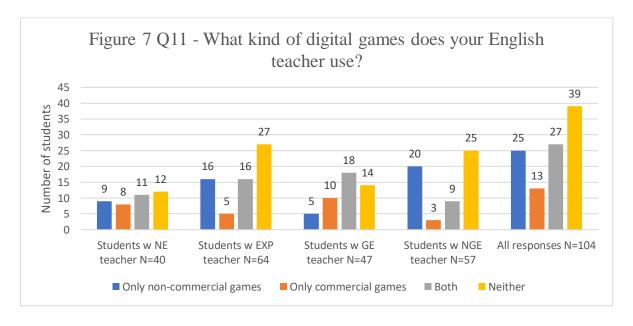


Figure 8 shows the responses to Q11. The question was: "Which kind of digital game does your English teacher use?" The question was close-ended, and the students could select from "only non-commercial games", "only commercial games", "both" and "neither". The students were also given examples of what a non-commercial digital game could be and what a commercial digital game could be, so they knew what was expected of them. The students

with EXP and NGE teachers had a significantly higher number of students report that their teacher did not use digital games. The students with NE and GE teachers had less students report that their teacher did not use digital games. These segments also had the most students report that they used digital games, both commercial and non-commercial.

Q12 poses the following open-ended question: "Why do you think your teacher uses or avoids using non-commercial games in the English subject?" There emerged a few patters from the data material. The two main patterns indicated that the teachers used digital games for variety and for motivational purposes. The students who reported that their teacher chose not to implement non-commercial games in their practices believed there were two main reasons. The first reason was that the teacher did not want to spend time on it. The students believed it was either lack of knowledge concerning how to implement digital games in their teaching practices or because the teacher was unwilling to change his or her teaching practices. The second reason was that the students believed that their teacher had the impression that they were using digital games sufficiently as an EE activity outside of school and did not need any more exposure to this media at school.

Q13 on the other hand asked the students the same question as Q12, but with commercial digital games instead of non-commercial digital games. The main patterns that emerged indicated that the teachers who did not use non-commercial games avoided using them for the same reasons as the non-commercial games. The two most prominent patterns were the lack of knowledge or interest concerning how to implement the digital games and that they believed a commercial game would be too difficult for the students to interpret. The students believed that the teachers believed that they would get preoccupied with the playing aspect of the digital game instead of learning from it. Some of the respondents also reported that they believed their teacher had a negative view of digital games in its entirety because there were more important things to emphasize in the English curriculum. The same patterns that emerged in Q12 also appeared when the students tried to explain why their teacher used commercial digital games. Motivation and variation were the two most prominent answers here as well. Additionally, some students also argued that commercial games provided content from them to work with, which non-commercial games did not do to the same extent.

Q14 asked the students to respond to the following statement: "Do you think you are learning more English by playing digital game at home or at school?" The students had three response options. They could answer "at home", "at school", or "I prefer to not play digital games at either one". Out of 104 student responses, 78 respondents reported that they believe they

learn more English at home, 12 believed they learned more English playing digital games at school, and 14 reported that they preferred not to play digital games either place. That means that 75% of students reported that they learn more English when playing digital games at home compared to 11,5 % at school.

Table 5				
	Number of		Percentage	
Category	responses		score	
At home		78	75 %	
At School		12	11.50 %	
I do not play digital				
games		14	13.50 %	
N=104				

Q15 asked students to report what they believe they learn from playing digital games which features English language, either at home or at school. There was a wide range of answers to this question, however, most answers could at large be placed into three broad categories: Oral skills, vocabulary, and written English. Most students listed one or more items but some of the responses did not list any item within their response that could be placed into these categories. The students who did not list anything or any items that would fit in the categories aligned with the responses in table 6.

Table 6				
Category	Percentage score	Number of responses		
Oral skills	51 %	54		
Vocabulary	44 %	45		
Written English	10.50 %	11		
N=104				

54 students reported that they had improved their oral skills, 45 reported that they had improved their vocabulary and 11 reported that they had improved their written English from playing digital games which features English language. Several students also mentioned that they had played *Minecraft* and that this game was, or had been, helpful for their English language development.

5.0 Discussion

5.1 Introduction

This chapter discusses the findings presented in the previous chapter and relates them to the theoretical framework and previous research presented in chapter 2. The chapter is structured after the research questions. Section 5.2 discusses the beliefs of newly educated teachers compared to the more experienced teachers concerning the use of digital games in the English subject in VG1. Section 5.3 considers the reported practices of VG1 English teachers concerning their use of digital games in the English classroom and what kind of digital games they are using. Section 5.4 considers the beliefs of VG1 students concerning the use of digital games in the English subject and outside of school. Section 5.5 discusses the learners` experiences concerning the use of digital games in the English classroom. Section 5.6 discusses the main similarities and differences in learner and teacher beliefs concerning the use of digital games in the English classroom. Section 5.7 discusses the limitations of this study, and section 5.8 presents the implications for teaching.

5.2 Teacher beliefs concerning the use of digital games in the English classroom.

According to Borg (2009) it is important to understand what teachers believe in order to understand their teaching practices. The first research question in this study investigated teachers' beliefs concerning the use of digital games in the English subject in Vg1. There was no clear consensus when taking the experience of the teachers into account. T2 and T3 held generally more negative beliefs, while T1, T4, T5 and T6 held more positive beliefs concerning the use of digital games in the English classroom. One of the main findings that all the teachers agreed upon was that digital games increase motivation. T1 and T2 argued that this is not the case for all students, but when generalizing this is still the case. This also corroborates the numbers presented by Medietilsynet (2020) which reports that 87% of students play digital games. Some of the teachers also taught vocational classes, and all these teachers reported a significant increase in learner motivation when they implemented digital games which align with the findings made by Sitzmann (2011). T4 argued that a student that would normally only hand in half a page for a graded assignment would hand in three or four times their normal length when working with a digital game as opposed to a conventional written work. This could be interpreted as a practical demonstration of Ryan & Deci (2000) which argues that intrinsic motivation result in high-quality learning and creativity.

The teacher groups who held more positive beliefs concerning the use where mainly the NE teachers (T4, T5 and T6) and the GE teachers (T1, T4, T5). The EXP teachers (T1, T2,T3)

and the NGE teachers (T2, T3,T6) were generally more skeptical. T1 and T6 used digital games for the sake of variety motivation. This meant that they used the digital games mainly for a change of scenery for their students. This in turn means that their main reason for using digital games is mostly for motivational purposes. T4 and T5 indicate that their view is different and the place more emphasis on the affordance digital games provide as a tool compared to T1 and T6. This view was more aligned with the practices of Staaby & Husøy (2019) which search for the affordances of digital games. T4 and T5 tried searching for what unique abilities a digital game can provide the teacher and learner with. Motivation is a beneficial aspect of playing digital games, but increased motivation is not exclusive for digital games. Therefore, it can not be viewed as an affordance evaluating when implementing a digital game. Both T4 and T5 argued that they value the beneficial properties of commercial digital games to develop their students ability to interpret and make meaning of Despite some initial concerns rooted in theory (De Castell & Jenson, 2003; De Grove et al., 2012; Ruohotie-Lyhty, 2016) concerning the NE teachers freedom to develop their teaching practices, results indicate that the NE teachers seem to display a large degree of freedom within their teaching practices, and both of the teachers who were in both the NE and GE teacher groups (T4 and T5) have positions where they help develop their colleagues skills concerning the use of digital games in the English subject.

One of the challenges by using digital games which was more prominent in the EXP teacher category, and the NGE argued that they were concerned that the learners would get lost in the play aspect of the digital game and lose focus on the learning objective for the session. This is supported by findings by Bourgonjon et al. (2010) who argues that teachers who are not used to implementing digital games in their own teaching practices will associate them more with play instead of learning, and thus be drawn towards the notion that digital games are for entertainment. However, some of these concerns are also a bit conflicting as the Core Curriculum (LK2020) also emphasizes that students must be able to assess different sources of knowledge and think critically of knowledge it developed. The students must take responsibility for their own learning (Core Curriculum, 2020). The teachers naturally have these professional concerns as they in turn are obliged to give their learners the best possible learning arena, but what is the best learning arena? This is mostly influenced by the teachers' own beliefs, attitudes, and experiences (Borg, 2015b) of how the learners acquire knowledge in the most efficient way possible but can also be influenced by the input from the learners as well.

Findings indicate that some of the EXP teachers could be fearful of implementing a new media because they want to give their students the best possible learning environment. Andreassen's (2015) findings suggest that it is fair to assume that many teachers have some sort of fear or reluctance when being asked to implement a media and cultural expression which they have not themselves taken part in. For T3 this might be the case, as she described that her lack of interaction with digital games to some extent had influenced her beliefs to become negative, because she did not see the point in them. It is also not impossible that Braley (2005) has some relevancy in this particular situation, as the fear of not providing what T3 perceives as the best possible learner environment could influence, the decision to use digital games very sparingly due to the lack of experience with the media. The theory also aligns with what Higgins (2013) argued in that student and younger teachers adopt new technology more efficiently when it is socially desirable and serves their own personal interest. The comparison can therefore be drawn between T3 and T6. T6 had some personal interest in the use of digital games as a tool in the English classroom. Despite being in the NGE teacher group she had no qualms about implementing digital games in her teaching practice when she could find possible benefits. This also aligns with the findings reported by Blume (2020) which indicate that newly educated teachers are more positive towards the implementation of new technology.

Ertmer (2005) argues that the individual teacher plays an important role in deciding how and why new digital technology are used in the classroom. This can be seen as T2, despite sharing the general concerns with T3, had some different main concerns. T2 labelled himself as a recreational gamer, meaning that he had taken part in the cultural exchange and should in theory be able to mediate it (Andreassen, 2015). His beliefs align substantially with those presented by Egenfeldt-Nielsen (2005, 2007) who argues that the bar for using digital games in the English classroom should be raised. T2 also aligns with Egenfeldt-Nielsen (2007) view that a lot of the studies carried out by both researchers and developers are not being sufficiently questioned by some of the more problematic aspects that should be raised by digital games. He also shares the main concern attributed to Egenfeldt-Nielsen (2005) concerning the time investment it takes to properly implement digital games in the English classroom. T2 agrees that it is a necessity to develop the skills necessary for implementing digital games to create the best environment for acquiring knowledge for the students.

The EXP teachers also voiced some concerns that playing digital games could have a negative impact on academic performance. This is in stark contrast to the research conducted by

Sundqvist & Sylvèn (2012) who argue that playing digital games as an extramural activity has a positive impact on the student's academic performance. Bourgonjon et al. (2010) also argue that playing digital games can have a positive influence on learner performance and productivity. T1 argued that "there is only so much one can learn from playing hundreds of hours of *Rust* (popular MMO digital game)". He argued that after a certain point, the students would focus more on playing the game, and therefore the learning outcome decreases steadily when performing the same actions repetitively. This notion is interesting, because it points out that when playing the same digital game over a long period of time it could change value of the extramural activities, thus leaning more towards the traits displayed by edutainment games (Egenfeldt-Nielsen, 2007) and perhaps showcase some of the same fallacies. To prove or disprove this requires research following willing participants over a longer period but could be an interesting proposition for future research.

When the teacher was asked what they thought about gaming being included as a part of the curriculum, two main patterns emerged. The first pattern was that there was a general belief by T1, T4, T5 and T6 that it was a positive change for several reasons. T4 argued that it was nice because the teachers had to develop their teaching practices to better accommodate the culture that was developing amongst the younger generation, and that the teachers should try to meet the students on "their arena". This aligns with the research made by Arstorp & Røkenes (2022) which argue that digital competence should not only consist of the knowledge and skills needed to design lesson plans, teaching and assessing, but also should encompass how digital technology changes school and teaching methods.

The second pattern, mostly displayed by T2 and T3 argued how the inclusion of digital games, albeit necessary, could be seen as heavy handed by the authorities, as not all students or teachers have interest in including digital games in the English classroom. Research show that a large portion of the youth are playing digital games in their spare time (Medietilsynet, 2020). On the other hand, Blikstad-Balas, Roe, Dalland, & Klette (2022) also argue that despite the expectation for teachers to be able to draw on digital tools, there is yet to be developed a platform, even across a single school, where teachers can share their digital repertoire of practices. This indicates that there are need for more teacher training, which was further supported when the NGE teachers argued that they would at large prefer to have more training in the use of digital games in the English classroom.

5.3 Reported practices of VG1 teachers

When approaching the reported practices there were a few key differences that appeared. The GE teachers had significantly more experience using digital games in the English classroom compared to the NGE teachers. The GE teachers reported that they had used digital games on many occasions, while some of the NGE teacher had only started implementing digital games shortly before participating in the current study. T6 had not implemented a full digital game project yet in this semester, but she had used a digital game about fake news, as a part of an "assignment buffet". She reported that the majority of her students chose to work on the digital game assignment. The findings from the teacher interviews indicate that the teachers believe personal interest is more important than age when discussing the implementation of digital games in the English classroom. This was generally something all the teachers agreed upon. Deci & Ryan (2000) argue that intrinsic motivation is generally driven by something the person finds inherently interesting or enjoyable. Up until this point the motivational aspect have mainly been aimed at the learners, but this is equally important for teachers as working with a media they enjoy also generates intrinsic motivation for them, which in turn promotes high-quality learning and creativity.

The NGE teachers at large preferred the use of non-commercial games. Despite some of the fallacies presented by Egenfeldt-Nielsen (2007) concerning edutainment games, the general reasoning presented by the NGE teachers indicates that they prefer these games because they are short and to the point. Some of the games they had used were *Play Spent* and *Keep talking and nobody explodes*. *Play Spent* is a conventional non-commercial game, in the sense that it has a designed learning outcome. *Play Spent* does not display all the main fallacies of edutainment games. *Play Spent* does not have a separate reward system or a high-score design but it does contain some integrated learning experience. *Keep talking and nobody explodes* is different, as it is made for commercial use in the sense that it is a party game. It does, however, display some of the edutainment games fallacies. The game has very limited freedom in the sense of what you can do within in it and contains no integrated learning experience, meaning that the learning outcome of the game is that you need to cooperate and communicate with your team to disassemble the bomb. The game itself is player centric but has limited freedom within the frameworks of the game.

T2 and T3 both reported similar challenges when discussing their interaction with digital games in their English classrooms. Both teachers reported increased motivation on behalf of the students, but neglectable learning outcome. As discussed in section 5.2 both teachers

voiced concerns about time constraints, and that this also was a main contributing factor as to why they chose to use these non-commercial games. There are studies that support this notion, that if they should implement more expansive digital games, there are challenges to implement them in a satisfactory manner within the English classroom (Becker, 2007; Brom et al., 2010). T2 argued that some digital game titles could potentially be many hours. The rationale behind this was that not only would the learners need many hours to complete the game, but he himself would have to invest so many more hours into researching and developing the necessary skills to implement the digital game in a satisfactory way that it was unfeasible.

T3 reported some different concerns compared to T2. She argued that her lack of experience utilizing the digital media arguably was the main factor that the digital game did not achieve what she had envisioned for the session. While T2 had used *Keep talking and nobody explodes*, where the main challenge for implementation is to have the practical aspects ready before the session, T3 had used *Play Spent*, which has a much less practical side, but is far more demanding if the teacher wants the students to extract the best possible learning outcome from the digital game. Egenfeldt-Nielsen (2005) explains that it is not sufficient to only possess the knowledge of the technical aspects of running through a game. There is also a need for the teacher to be a mediator and to contextualize what they want the students to take out of it. T3 had very little experience with using digital games in general, which meant that she missed some of these skills, which she also reported in the interview. Furthermore, she also expressed the desire to get more training so she would be better equipped in the future. Her reports align with the findings of Ketelhut & Schifter, (2011) and Wastiau et al. (2009), who stress the need for teacher training and support, both in terms of materials and guidance by a more experienced peer.

There was a significant difference in the kind of digital games used by the GE teacher group compared to the NGE teacher group. The GE teacher group exclusively preferred commercial games for their teaching practices, with an emphasis on digital games with a lighter gameplay component and a heavy narrative component. This aligns with the Liestøl's (2001) findings. She argues that the commercial games have significantly more attributes that are in alignment with the Core Curriculum. She explains that the commercial games encourage the learners to display independence and accountability for their own learning outcome. Further, she argues that "commercial digital games manage to convert educational settings into a positive and exciting experience" (Liestøl 2001, p.134), which in turn can build intrinsic motivation (Ryan

and Deci, 2000) for education. T4 argued that the reason he used mostly commercial games was because his perception of non-commercial games was that they left too little up to the teacher as to what to do with them. T4 reported that he had essentially discarded the non-commercial games because he believed that the commercial games are a cultural object, which was according to him more in line with what the curriculum intended to achieve with the implementation of gaming. He explained that arguably non-commercial games are already predigested and therefore could not be perceived as a cultural artefact, like the commercial games could.

T1 reported that he used a digital game called What Remains of Edith Finch. He explained that the game in its essence can be perceived as a walking simulator, which he argued was true for many of the digital games with a heavy narrative component. Because he had some previous experience with the game and sufficient knowledge of how to implement it (Egenfeldt-Nielsen, 2007), he argued he could justify spending several sessions on it. T1 reported that the game could be treated as a multimodal text therefore it could be analyzed in the same way one would analyze a book. By taking this approach T1 argued that the time spent on the digital game was justifiable because they could work on several aims from the curriculum. The game had the narrative properties to serve as a substitute for a printed novel, but also had some of the interreactive properties of a digital game which in turn gave a different experience compared to reading a novel as suggested by Gee (2013, p.61). One of the didactic drawbacks of his implementation of the digital game was that he only had one copy of the it. T1 solved this by having the students take turns playing in front of the class. This meant that all students could not play the digital game simultaneously. This took away some of the beneficial properties of a digital game and made the learners who were not actively playing the digital game enter an off-line engagement state (Newman, 2002) which is not optimal. T1 concluded that in an ideal setting he would have the learners play the game individually, or in pairs, so he could let them progress at their own pace. This would let the learners utilize the immersive and differentiative (Paraskeva et al. 2010) properties that the media inherently has, as well as decrease their time spent in off-line engagement within the digital game.

T5 used a game called *Gone Home*. *Gone Home* has a heavier gameplay component compared to *What Remains of Edith Finch* but is still significantly more narrative driven than gameplay driven. T5 implemented a similar lesson plan structure to T1, but had several copies, so all the students could play the game at their own pace. This implements a larger degree of freedom

and differentiated experiences (Paraskeva et al. 2010) for the students compared to the approach that T1 had to use. Paraskeva et al. (2010) argue that games have a natural way of adapting to the skill level of the player, which *Gone Home* does not demonstrate particularly well, but the didactical approach taken by T5 gave the students the opportunity to progress at their own pace. This decision implements a certain degree of differentiation inherently. The game used by T4, *Inside*, has a very similar concept to *Gone Home* in the sense that the player must explore, but *Inside* has a more linear storyline than *Gone Home*, where each player may find the different clues in different orders compared to each other. *Inside* has a more technical gameplay component, meaning that the skill differentiation is more present in *Inside*, as it lets the player have a differentiated experience based on player skill.

5.4 Learners beliefs concerning the use of digital games

Lightbown & Spada (2006) argue that learner beliefs are based on previous learning experiences and that the learners have assumptions concerning how they acquire knowledge in the most efficient manner. Kalaja & Barcelos (2013) also argue that the learning process and the learning context are charged with positive or negative experiences. This is easily identifiable in the findings. Most of the students responded that they have generally positive beliefs concerning the use of digital games in the English classroom. The mean score of all student responses to the statement: "I am positive towards the use of digital games in the English subject", can be seen in Figure 4 with a mean score of 4.25 out of a maximum score of 5. This is not surprising reviewing Medietilsynet's surveys from 2018 and 2020 which align with the current findings. The most significant differences throughout the questionnaire can be found between the male and female students. These numbers not uncharacteristic for this age bracket when comparisons are drawn towards the numbers presented by Medietilsynet (2020).

One of the most interesting findings was that 75% of the students reported that they believed they learned more English when playing digital games at home. When considering the findings in Table 4 from Q10, this reinforces the notion that EE activities have an important role in the SLA of VG1 students Q9 being the statement that the students agreed the second most to with a mean score of 4.23 out of 5. Sundqvist & Sylvèn (2016) argue that there are many benefits for taking advantage of students EE activities at school, including utilizing serious gamers when working with digital games at school could be a significant benefit. These findings also align with the theory presented by Brevik & Holm (2022) which argue that learners think that EE activities have benefits for their language acquisition. To my

knowledge, previous studies have not compared whether the learners favor EE activities or digital games at school. According to Kalaja & Barcelos (2013), all learning contexts are charged with positive or negative experiences. Because of the intrinsic motivation that usually goes hand in hand with playing digital games as an EE activity, it is not surprising that Sundqvist & Sylvèn (2016) found ways to utilize EE activities in the classroom. These findings also support the affective filter theory (Krashen, 1982). The students that display low amounts of stress and anxiety and a high degree of motivation may have increased SLA.

5.5 Learners' experiences concerning the use of digital games in the English classroom Some of the main findings the students' reported concerning the use of digital games for their English language acquisition both inside and outside of school were that they had three main benefits from playing digital games. The three benefits listed was oral English, vocabulary, and written English. In Table 6, the students listed oral English the most frequently as beneficial for their language acquisition. Brevik & Holm (2022) argue that there is a link between informal and formal English and language learning. According to Medietilsynet (2018, 2020) there is a substantial number of learners who play digital games online. Medietilsynet (2020) learned that *Fortnite* is one of the most played digital games for VG1 students. *Fortnite* has limited usefulness for English language learning in the actions that are performed inside of the game but has benefits for the informal oral skills of learners playing this game as an EE activity. According to Brevik and Hom (2022), learners playing this Fortnite, or other games, increase their affinity space, which may translate over to the English classroom if coupled with relevant tasks by the teacher.

The second benefit the students reported they had acquired from playing digital games was vocabulary. Several of the students who listed vocabulary in their open-ended answers also argued that they played one digital game that had a direct link to their increased vocabulary proficiency. This game is named *Minecraft*. This game is an open world sandbox game. This kind of game have a large degree of freedom for the player to explore, with a very high degree of player agency giving the digital games strong interreactive properties but has a limited narrative component. *Minecraft* is a digital game which has been used extensively in school for a while in Norwegian context. Staaby and Husøy recently discussed the possible overuse of the game in their podcast *Spillpedagogene*. Mostly in other subjects than English, most notably science and mathematics and the developers have even provided a version of the game which is specifically tailored for educational purposes. The game does not offer particularly much in terms of direct input towards the English specific curriculum besides the

fact that it is in English and that it fosters cooperation between the playing parties. However, when being utilized as an EE activity it most certainly has benefits, sharing a large portion of the same affordances that made Sundqvist & Sylvèn (2012) value the MMORPG games for EE activities for language acquisition.

The final benefit the students reported they had acquired from playing digital games was written English. These students did not list any specific digital games, but it is fair to assume that these students play games with a degree of interaction with authentic written English, like the MMORPG genre suggested by Sundqvist & Sylvèn (2012) or coupled the digital games they play with tasks that the teachers have given them in a classroom setting. This can be either through a non-commercial game or through digestion of a commercial game which have forced them to work on their written skills as a part of an assignment. All the digital games that the GE teachers have reported using could be utilized to promote written English skills if mediated to do so through tasks. This group is also the significantly smallest of the three groups, which indicates that the link between written English, and in particular academic written English is the weakest by the three suggested.

5.6 Main differences and similarities in learner and teacher beliefs concerning the use of digital games in the English classroom

The main similarities found in this study between learner and teacher beliefs were that there was a similar split between the teachers who were positive towards the use of digital games in the English classroom and the students. Figure 7 indicates what the students think about their teacher's belief concerning the use of digital games in the English classroom. The findings seem to be appropriate to what was said in the teacher interviews with the GE and NE teacher groups being generally more positive compared to the NGE and EXP groups for both teachers and the students who had teachers from these groups. These findings align with the research done by Blume (2020) in the sense that both students and teachers hold generally positive beliefs, and especially the newly educated teachers and their students. It is also aligned with the research by Lightbown & Spada (2006) which suggests that learners have certain beliefs concerning how their learning instructions should be presented, and that their beliefs are based on previous learning experiences. This indicates that the students to a certain extent have been influenced by their teacher's beliefs. This seems to be the case based on the data collected by the present study. The students also seemed to echo the teachers' experiences with playing digital games, in the sense that both parties reported a general positive belief, motivational benefits, but average learning outcome.

Q12 and Q13 from the questionnaire asked the students why they thought the teachers used/or did not use commercial and non-commercial digital games in the English classroom. The students reported three main reasons why they believed their teacher chose to not use noncommercial digital games in their English classroom practices. The first reason was that the teachers did not want to spend time on digital games. The students who went into more detail reported that they believed their teachers either did not know how to utilize digital games or because they saw it as not being important. The second reason was that the teacher would have to change their teaching practices and the students believed that their teacher would not be willing to do so. Some of the student replies that went more in-depth suspected that the teacher had spent many years developing their way of teaching and were unwilling to change. The final reason was that the students believed that their teacher believed that they already had too much exposure to digital games through EE activities and therefore did not require more exposure to this media at school. The EXP teacher group had the highest number of students report that they did not use any digital games in Figure 7. According to Borg (2015b), the teachers use their belief as a filter and may influence how they react to educational change. Therefore, it is not unreasonable to argue that some of the teacher beliefs from the EXP group could validate the students' reported beliefs in Q12 and Q13.

When asked why their teachers chose to use or not to use commercial digital games in their English teaching practices the students reported two main reasons. The first reason was that the students believed their teacher believed the students would get lost in playing the game, and thus not take away the designed learning outcomes. The second reason was that the students believed that the teachers viewed commercial games as too complicated for them to unpack. The first reason reported by the students were agreed upon by T1, T3 and T5 to a certain extent. Concerning the second reason, the teachers were not so concerned about the difficulty of unpacking the necessary depth to make meaningful use of the digital games. Research shows that some of the concerns regarding getting lost in play are echoed by Egenfeldt-Nielsen (2007) concerning the use of commercial games. deHaan et al. (2010) also have research show decreased vocabulary recall if there are other modes that takes too much attention.

Peacock (1998) addresses the link between teacher and learner beliefs, and how this may impact the learners' language progress in a negative manner if their beliefs are not sufficiently aligned. The findings of the current study show that learner and teacher beliefs are mostly aligned. Nunan (1995) argues that the learners should be involved in making decisions among

various options, which is easier when there are similarities between learner and teacher beliefs. Only T6 reported that the students had some meaningful impact on the way they worked with the subject materials, however, this does not mean that the other teachers who participated in the current study does not yield meaningful choices concerning the way they work with digital games, or other subject materials for that matter, they did simply not get into it during the interviews. Despite this some of the answers seem to indicate that the students have a good understanding of what their teachers' beliefs are and vice versa. Student and teacher beliefs were mostly aligned for most of the questions given to them such as what perceptions of each other's view of digital games and the benefits they believed they could get from digital games. There seems to be some discrepancies when it comes down to how the students learn best from the use of digital games, as 75% of the students asked reported that they learned more English when playing digital games at home compared to in other arenas. The teachers had an overall belief that EE activities mostly had a positive influence on the learner's English language acquisition which are aligned with research by Brevik (2019), Brevik & Holm (2022), Estensen (2020), and Sundvist & Sylvèn (2012). This poses the challenge of how teachers can gain benefits from the EE activities that their students participate in.

5.7 Limitations

The main limitation of this study is the low number of participants. Six VG1 teachers participated, and the questionnaire was distributed to 104 VG1 students. The findings can not be generalized to represent all teachers or the students in the Norwegian context (Dörnyei, 2007, p.52). There is also some reliability and validity concerns in the study. The study utilized a mixed methods approach, which consisted of both teacher interviews and a student questionnaire. There is a chance that students may have interpretated the questions differently. Additionally, the questionnaire's open-ended question and the findings may be reduced because the fact that the interviewer is left to interpret the and questionnaire's responses open-ended responses (Brinkmann & Kvale, 2015). The questionnaire was conducted in Norwegian and then translated into English, therefore there is a chance that the translation may have affected the wording of the responses. Furthermore, some of the questions in the questionnaire and interview guide could be perceived as leading, which is a limitation of this study. However, by including both teacher and learner beliefs and experiences concerning the use of digital games in the English classroom their responses may be compared and discussed, which should strengthen the validity of the current study (Dörnyei, 2007).

5.8 Implications for teaching

This section aims to outline the main teaching implications proposed by the findings of the present study. According to the findings the beliefs of the NE teachers were more positive compared to the EXP teachers concerning the use of digital games in the English classroom. GE teachers preferred commercial digital games with a significant narrative component in their practices because they had closer ties to the curriculum aim, and the NGE teachers preferred the non-commercial digital games because they were short and to the point. GE teachers reported success in both learning outcomes and motivation, while the NGE teachers reported a mediocre learning outcome but increased motivation from their students when they had used digital games in the English subject. These findings align themselves with the theory outlined in chapter 2 by Egenfeldt-Nielsen (2005, 2007), where he argues that there it takes a significant amount of time spent learning the skills necessary to implement a digital game successfully into the English classroom. Several of the NGE teachers also voiced their opinions that they would have preferred to have more training on the subject. Thus, it seems crucial to provide the teachers with more training, as there seems to be a discord when considering how digital games should be used in the English subject. When the authorities implement new competence aims, they should also be following up with teacher training.

The learners reported general positive beliefs concerning the use of digital games in the English classroom. They also reported increased motivation, but mixed learning outcomes. The majority of learners reported that they learn better when playing digital games at home compared to at school. The reasons for this could be that they get to choose which games to play to better suit their own personal interests, which generates more intrinsic motivation. This aligns with the theory of Ryan & Deci (2000), which suggests that high levels of intrinsic motivation result in high-quality learning and creativity. Overall, the teacher and learner beliefs were largely aligned with each other, but the main differences seemed to be that the learners want to play digital games with more player agency compared to the different digital games that the teachers utilized in their teaching practices. Despite not directly saying this, this can be interpreted by the significant number of students who argued that they learn more English when playing digital games at home compared to school in this study, further research is necessary to uncover the nuances.

6.0 Conclusion

6.1 Main findings

The current thesis aimed to explore teacher and learner beliefs concerning the use of digital games in and outside the English classrooms. Additionally, it aimed to investigate the reported experiences and practices that learners and teachers have concerning the use of digital games in and outside of the classroom. A mixed method research design, including six teacher interviews and a student questionnaire distributed to 104 students, was used to answer the following research questions:

- What are the beliefs of newly educated teachers compared to more experienced teachers concerning the use of digital games in the English subject in VG1?
- What are the reported practices of newly educated and experienced VG1 English teachers concerning their use of digital games in their English classrooms and what kind of digital games are they using?
- What are the beliefs of VG1 students concerning the use of digital games in the English subject and outside of school?
- What are the learners` experiences concerning the use of digital games in the English classroom?
- What are the main similarities and differences in learner and teacher beliefs concerning the use of digital games in the English classroom?

Most of the teachers held some positive beliefs concerning the use of digital games in the English subject. However, a few patterns emerged. T1, T4, T5 and T6 held generally positive views concerning the use of digital games in the English classroom, while T2 and T3 were more skeptical. T1, T4, T5 all belonged to the GE teacher group, and despite not having any formal education in ICT or concerning the use of digital games in education T6 also had personal interest in using digital games in the English classroom. The GE teacher category preferred commercial games with a significant narrative component, while the NGE group at large preferred non-commercial digital games. The GE teachers emphasized digital games with a significant narrative component, while NGE teachers predominantly used digital games with a more practical approach. Conclusively, the teachers did not have a full uniform belief and widespread reported practices concerning the use of digital games, but they did all agree that digital games can be used to increase motivation in the English classrooms.

The learners' beliefs were in line with the beliefs of the teachers, the learners reported that they believed digital games could increase motivation for them. The learners also showcased

a non-uniform belief concerning the learning outcome of the digital games in the English classroom. 75% of the learners also reported that they believe they learn more English when playing digital games at home compared to only 11.5% reporting that they learned more from playing digital games in the English classroom. While all the teachers believed to a certain extent that playing digital games as an extramural activity could be useful for English language acquisition, there seems to be somewhat of a difference in beliefs when considering the number of students who report that their use of digital games at home gives them a more beneficial learning environment when using digital games compared to at school. These findings indicate that more teacher training is required, as the use of digital games have, and gaming have just recently started in the English subject. Blikstad-Balas (2022) pointed out that there is no platform for the teachers to use when looking for answers concerning the implementation of digital games, and the differences in the reported practices seem to indicate that a more uniform platform for how to use digital games could be useful. There are also very promising future opportunities if it is possible to harness more of the significant EE activities our students engage in for classroom benefits.

The comparison between the reported digital games that students play from Medietilsynet (2020) in combination with the few instances we know of from this study compared to the digital games used by the GE teachers indicate that students prefer to play digital games with more emphasis on player agency within the digital game. The structure of all the digital games implemented by the GE teachers predominantly focuses on the narrative aspect, which relates closely to reading a book. The didactic approaches taken by the teachers makes sense, because it is significantly easier to tie the digital games into the curriculum if they provide a similar tool to what a book does, thus validating the use of literary devices to interpret the digital game in the same manner one would interpret a literary work. Further, this also helps with the concern raised by some of the more skeptical teachers concerning the time spent on the digital games. If one reads the aim that specifically refers to gaming, it is only a third of one aim. However, if it is baked in with different aims, it can also warrant spending more time on an assignment, which aligns with the approach reported by the GE teachers. Scholars are still debating if one can consider a digital game as a literary work based on their properties. According to Gee (2013) there are sufficient similarities between books and digital games that the approach taken by the GE teachers in this study have some merit.

6.2 Contributions and implications for further research

The present thesis aimed to contribute towards the field of L2 English to gain a better understanding of teachers' and students' beliefs concerning the use of digital games in the English subject. The study has contributed towards this growing field by exploring it from both learner and teacher perspectives. Furthermore, this study aimed to get a better overview of what kind of digital games are being used by both newly educated and experienced VG1 English teachers. Additionally, it aimed to explore the similarities and differences in learner and teacher beliefs concerning the use of digital games in the English classroom.

Further studies are recommended to gain more knowledge about this important topic of digital games in the English subject. The findings presented in this study also indicate that there is grounds for further research concerning what kind of digital games are most beneficial for English language learning. The learners believe that they would benefit more from digital games with a higher degree of player agency compared to what they are being introduced to in the current English classrooms. In comparison GE teachers are mostly using digital games with low player agency. Further research concerning how teachers can utilize more of the beneficial properties of extramural English activities for classroom practices seems to be a valuable study that could be conducted in the future. If there is a way to translate these beneficial properties into English classroom benefits, there is grounds to believe that there is significantly more potential to extract from the use of digital games in the English classroom.

There seems to be a necessity to develop a framework for teachers that makes the use of digital game implementation simpler, as well as more achievable, especially for the non-digital native teachers that are currently in-service. Lk20 have opened a door when they chose to introduce gaming in the curriculum, but there also seems to be a lack of an overarching practice on how the digital games should be used. When the use of movies was implemented, this technology had already been around long enough for teachers to develop a professional and cultural understanding of how this technology should be used, but the concept of using gaming in the teaching practices have been around for significantly less, which means that there are very little previous practice or cultural indications concerning how this should be presented in an English classroom setting.

7.0 References

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8.0 Appendices

Appendix A: Approval from NSD

Det er vår vurdering at behandlingen av personopplysninger i prosjektet vil være i samsvar med personvernlovgivningen så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet med vedlegg den 07.01.2022, samt i meldingsdialogen mellom innmelder og Personverntjenester. Behandlingen kan starte.

DEL PROSJEKTET MED PROSJEKTANSVARLIG

For studenter er det obligatorisk å dele prosjektet med prosjektansvarlig (veileder). Del ved å trykke på knappen «Del prosjekt» i menylinjen øverst i meldeskjemaet. Prosjektansvarlig bes akseptere invitasjonen innen en uke. Om invitasjonen utløper, må han/hun inviteres på nytt.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 30.06.2022.

LOVLIG GRUNNLAG

Utvalg 1 (lærere): Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake.

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

Utvalg 1 har taushetsplikt som lærere. Intervjuene må gjennomføres uten at det fremkommer opplysninger som kan identifisere elever

Utvalg 2 (elever): Utvalget skal være anonymt, og regelverket for personopplysninger kommer derfor ikke til anvendelse for utvalg 2.

PERSONVERNPRINSIPPER

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

DE REGISTRERTES RETTIGHETER

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

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

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

FØLG DIN INSTITUSJONS RETNINGSLINJER

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

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

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

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde:

https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema

Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET

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

Lykke til med prosjektet!

Appendix B: Changes in the project approved by NSD

Kommentar

Bekreftelse på status

Personverntjenester har vurdert endringen i prosjektsluttdato.

Vi har nå registrert 31.12.2022 som ny sluttdato for behandling av personopplysninger.

Vi vil følge opp ved ny planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet/pågår i tråd med den behandlingen som er dokumentert.

Kontaktperson:

Lykke til videre med prosjektet!

Vil du delta i forskningsprosjektet mitt?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke lærere og elevenes holdninger til bruken av digitale spill i engelskundervisningen. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Formålet med prosjektet er å undersøke lærere og elevers holdninger til bruken av digitale spill i engelskundervisningen. Utvalget har derfor blitt slik at vi skal intervjue seks lærere fordelt på to grupper hvor gruppe nummer en har lang erfaring fra læreryrket, mens gruppe nummer to nye til læreryrket. Dette bygger spesielt på læreplanmålet fra LK20: «diskutere og reflektere over form, innhold og virkemidler i engelskspråklige kulturelle uttrykksformer fra ulike medier, inkludert musikk, film og spill.»

Noen av forskningsspørsmålene vi skal analysere er: hvordan de to forskjellige gruppene vil implementere det nye læringsmålet, hvilken type digitale spill bruker de, eventuelt hvorfor velger man å ikke bruke digitale spill, hva synes elevene om bruken av spill i undervisningen.

Dette forskningsprosjektet er en mastergradsoppgave. Formålet for denne datainnsamlingen er for å kunne svare empirisk på forskningsspørsmålene.

Hvem er ansvarlig for forskningsprosjektet?

Karl-Erik Hansen er ansvarlig for prosjektet. I tillegg vil min veileder fra Universitetet i Stavanger Torill Irene Hestetræet også ha tilgang til informasjonen som innhentes.

Hvorfor får du spørsmål om å delta?

Du har fått forespørsel om å delta fordi du arbeider med Engelsk på VG1, enten gjennom at du underviser eller hjelper til med utformingen av undervisningen i dette faget. Du har enten tatt kontakt med meg som respons på en forespørsel sendt til din skole eller fordi jeg har tatt kontakt med deg direkte.

Det skal delta totalt seks lærere i dette prosjektet og dere er også valgt ut slik at det blir to målgrupper som er omtrent like store. En målgruppe som er ganske nyutdannede og en gruppe som er ganske erfarne. Med nyutdannet menes det at du har undervist i mindre enn 10. Med erfarne menes det mer enn 10 års erfaring.

Hva innebærer det for deg å delta?

Din deltakelse innebærer at du gjennomfører et dybdeintervju. Dette intervjuet er semistrukturert og kommer til å ta 30-40 minutter. Det vil bli gjort lydopptak av dette intervjuet. Intervjuene vil bli gjennomført i januar. Da vi i nyere tid har hatt en økning i Covid-19 smitte i regionen kan det bli mulighet for at intervjuet gjennomføres digitalt dersom fysisk oppmøte er uforsvarlig. Dette vil bli tatt stilling til og vil legges til rette for i tråd med NSD sine retningslinjer.

Det vil i tillegg forventes at du gjennomfører en spørreundersøkelse med elevene dine i en av klassene som du underviser eller utformer engelskundervisning for. Denne spørreundersøkelsen vil være en forkortet og forenklet versjon av de spørsmålene du får i dybdeintervjuet. Denne undersøkelsen vil

naturligvis være frivillig å delta på, men det oppfordres til deltakelse for elevene. Den vil ta omtrent 10 minutter å svare på og vil ta for seg elevenes holdninger til bruken av digitale spill i engelskundervisningen.

Det er frivillig å delta

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

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

Karl-Erik Hansen (student) og Torill Irene Hestetæet (veileder) vil ha tilgang til datamaterialet.

Lydopptakene vil lagres eksternt på en harddisk med kryptering og vil bli slettet ved prosjektslutt. Spørreundersøkelsene vil bli gjennomført gjennom portalen til UiS, SurveyXact, og vil være anonyme.

Ditt navn og kontaktopplysninger vil jeg erstatte med en kode som lagres på egen navneliste adskilt fra øvrige data. Ditt navn og skolen du jobber på vil ikke komme frem i intervjuet, annet enn ved signatur av samtykke skjema. Det vil ikke komme frem noe biologisk data om deg da intervjuet vil bli transkribert, annet enn hvilken av de to gruppene ditt kodenavn har tilhørt. (Se hvorfor får du spørsmål om å delta).

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er 30.06.22. Selve lydopptakene vil bli slettet, men transkripsjonene vil man kunne finne som en del av oppgaven på UiS sine arkiver. Disse arkivene heter Brage og det legges ved lenke her: https://uis.brage.unit.no/uis-xmlui/

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Universitetet i Stavanger har NSD – Norsk senter for forskningsdata AS 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 Torill Irene Hestetræet. Epost: torill.hestetreet@uis.no
- Karl-Erik Hansen Epost: 242576@uis.no
- Vårt personvernombud kan du kontakte her: personvernombud@uis.no

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

• NSD – Norsk senter for forskningsdata AS på epost (<u>personverntjenester@nsd.no</u>) eller på telefon: 53 21 15 00.

Med vennlig hilsen				
Torill Irene Hestetræet	Karl-Erik Hansen			
Samtykkeerklæring				
Jeg har mottatt og forstått informasjon om prosamtykker til: □ å delta i dybdeintervju	osjektet, og har fått anledning til å stille spørsmål. Jeg			
Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet				
(Signert av prosjektdeltaker, dato)				

Spørsmål til lærerintervju

1. Bakgrunn

- 1. Hvor mange år er det siden du fullførte graden din ved universitetet og hvilken grad tok du?
- 2. Hvor lenge har du undervist siden du fullførte utdanningen din?
- 3. Har du tatt noe ekstra utdanning etter du ble ferdigutdannet som lærer?

2. Rammefaktorer

- 1. Hva er rammefaktorene for bruk av spill i ved din skole? Rammefaktorer er de ressursene som er tilgjengelige for deg når du underviser. Det kan være eksempelvis være klasseromsmateriell eller andre ressurser.
- 2. Finnes det egne gamingrom med dataparker?
- 3. Hvilken type maskiner bruker elevene til undervisning og har skolen lagt noen føringer på hvilke datamaskiner elevene skal bruke?
- 4. Hvilke føringer legger rammefaktorene på din engelskundervisning?

3. Bruker du digitale spill i undervisningen?

- 1. Hvorfor velger du å bruke/ikke bruke digitale spill i engelskundervisningen din?
- 2. Hvilke deler i engelsk faget opplever du at det det fungerer greit å bruke spill i engelskundervisningen? Eventuelt om du ikke praktiserer dette selv, hvilke deler av engelskpensumet tror du at det kan fungere å bruke dataspill i?
- 3. Hvilke av engelskpensumet opplever du at det ikke fungerer spesielt godt med bruk av digitale spill?
- 4. Eventuelt om du ikke praktiserer bruk av digitale spill, hvilke deler av engelskpensumet tror du det kunne fungert bra å implementere digitale spill i?
 - Hvorfor tror du at det vil fungere dårlig å implementere digitale spill inn i akkurat denne delen av engelskpensumet?
- 5. Fortell om en av gangene du brukte spill i engelskundervisningen, eller observerte dette, (dersom du har det).
 - Hvorfor brukte du (digitalt)spill?
 - Hvordan var din opplevelse rundt dette?
 - Fungerte det som du hadde trodd det skulle gjøre?
 - Hvorfor virket denne tilnærmingen bra/dårlig?

- Hvilket utbytte følte du elevene satt igjen med av timen?
- 6. Hva var læringsutbyttet av timen du brukte digitale spill?
- 7. Tror du elevene hadde fått et bedre læringsutbytte dersom du hadde valgt et annet undervisningsmedium?

4. Nytt innslag i LK20.

Et av de nye kompetansemålene lyder som følgende: «diskutere og reflektere over form, innhold og virkemidler i engelskspråklige kulturelle uttrykksformer fra ulike medier, inkludert musikk, film og spill». (LK20).

- 1. Hva er dine meninger om dette kompetansemålet og hvordan ville du implementert det i din undervisning?
- 2. Hva er dine erfaringer med dette kompetansemålet?
- 3. Hvordan har du implementert det så langt i din undervisning og hvordan har det fungert?
- 4. Hvordan underviser du dette kompetansemålet?
- 5. Har du fått noe opplæring vedrørende bruk og tolkning av spill fra en eller flere av disse: utdanningen din, kurs i regi fra arbeidsstedet, kurs som man har meldt interesse for selv, kolleger?
- 6. Dersom du har fått opplæring fra en eller flere av de overnevnte opplæringsressursene hvilken av disse typene opplæring har vært mest nyttig for deg og hvorfor?
- 7. Dersom du har fått opplæring, hva gikk denne opplæringen ut på?

5. Finnes det spill du anbefaler til undervisning og hvorfor?

- 1. Hva er tankene dine om bruken av såkalte "lærespill" (non-commercial games) vs kommersielle spill (commercial games) som er laget for underholdning?
- 2. Hvilke fordeler og ulemper ser du med de forskjellige spillene når det kommer til bruken av disse i engelsk undervisningen?
- 3. Hva er dine tanker om bruken av kommersielle spill og ikke-kommersielle spill i undervisningen basert på din egen erfaring og opplæring?
- 4. På hvilke måter tror du at digitale spill kan være nyttig i engelsk undervisningen og for hvilke formål?
- 5. Hvilke læremål kan støttes opp av bruken av digitale spill?

6. Hvordan er dine holdninger til bruken av digitale spill i engelsk klasserommet?

- 1. Hvordan er ditt syn på bruken av digitale spill i undervisningen?
- 2. Hvorfor er du positivt/negativt innstilt til bruken av spill i undervisningen?

- 3. Hvilket forhold tror du kollegiet ditt som helhet har til bruken av spill i undervisning?
- 4. Hvilken av disse to påstanden føler du er mest sann og hvorfor?
 - Påstand 1: "Det er hovedsakelig unge nyutdannede lærere som bruker spill i engelsk undervisningen".
 - Påstand 2: "Alder har lite å si for hvem som bruker spill i engelsk undervisningen, dette er hovedsakelig drevet av de forskjellige lærerne sine personlige interesser".
- 5. Hvilket av de to forrige utsagnene passer best til ditt kollegium?
- 6. Sunqqvist and Sylven gjennomførte i 2016 en empirisk studie som viste at ekstramurale engelsk aktiviteter (bruk av digitale spill i dette tilfellet) gir økt språklæring. Vurder påstanden: «Bruk av digitale spill hjemme forbedrer engelskferdighetene til elevene».

7. Hvilke holdninger tror du elevene dine har til bruken av digitale spill i undervisningen?

- 1. Hvilke holdninger tror du dine elever sine holdninger er til bruken av digitale spill i engelsk undervisningen er?
- 2. Hvorfor tror du at elevene opplever økt eller redusert motivasjon dersom du har/hadde brukt spill i engelskundervisningen?
- 3. Hvilken av de neste to påstandene mener du stemmer best og hvorfor?
 - Påstand 1: Elevene får mer motivasjon av å spille digitale spill fordi de liker variert undervisning i engelskfaget.
 - Påstand 2: Elevene får mer motivasjon av å spille digitale spill i engelsk faget fordi de assosierer dataspill mediet med underholdning?
- 4. Har du et inntrykk av at dine elever bruker mye tid foran en skjerm (sikter både til på skolen og ekstramuralt)? Hvordan kan dette være en fordel eller en ulempe slik du pleier å undervise engelsk?
- 5. Hva er dine holdninger til at skolearenaen i økende grad blir mer og mer digitalisert?
- 6. I undersøkelsene som er gjort av medietilsynet kommer det frem at det er 97% av guttene og 62% av jentene i alder 15-16 spiller dataspill. Det er også tydelig tall fra statistikker fra SSB som viser at skolen er en arena som jentene presterer bedre i de fleste fag.

Tror du at å innføre dette bruken av dette mediet i klasserommet kan være med å utjevne noe av de forskjellene som har oppstått/er i ferd med å oppstå?

Link til medietilsynet: https://www.medietilsynet.no/globalassets/publikasjoner/barn-og-medier-barn-og-medier-2020/200402-delrapport-3-gaming-og-pengebruk-i-dataspill-barn-og-medier-2020.pdf

SSB link: https://www.ssb.no/utdanning/grunnskoler/statistikk/karakterer-ved-avsluttet-grunnskole

Interview guide English version

1. Background

- 1. How many years is it since you graduated from university and what is your educational background?
- 2. How long have you been teaching since you became a qualified teacher?
- 3. Did you take any other education after receiving your teacher qualification?

2. Framework Factors

- What are the framework factors for your school? Framework factors are what
 resources are available to you as a teacher from the school. This could be classroom
 materials or other resources.
- 2. Are there designated gaming rooms with computer equipment?
- 3. What kind of computers is being used by the students and is the school providing any guidelines on which computers the students should be using?
- 4. What constraints are the framework factors putting on your teaching practices?

3. Digital games in the English Classroom

- 1. Why are you using/not using gaming in your English classes?
- 2. What parts in the English curriculum do you think are easy to implement gaming into?
- 3. If you are not using games in your own practices, what parts of the English curriculum do you think would be suited for implementing gaming into?
- 4. In which parts of the English curriculum do you think gaming would not work particularly well?
 - Why do you think the use of digital games would not work in this particular part of the curriculum?
- 5. Describe one of the times you used digital games in the English Classroom (if you have done so).
 - What were your experiences?
 - Did it work well/not so well?
 - Why did this approach work well/not so well?
 - What did the students learn from the session?
- 6. What were the learning outcome of the session you used digital games?
- 7. Do you think the students would have learned more if you had used a different media than digital games?

4. New competence aim in LK2020.

1. One of the new competence aims sounds as follows: "discuss and reflect on form, content and language features and literary devices in different cultural forms of expression from different media in the English-language world, including music, film, and gaming" (Lk20)

What are your opinions concerning this competence aim, and how would you implement it in your teaching practice?

- 2. What is your experience with this competence aim?
 - 3. How have you implemented the competence aim so far in your teaching practice and how have these methods worked?
- 4. How do you teach this competence aim?
- 5. Have you received any training concerning the interpretation of games from one or more of the following: your education, courses orchestrated by your employer, courses outside the workplace, or other colleagues?
 - 6. If you have received any training concerning the interpretation of games which one of the previous (or different) training resources was the most useful and why?

5. Are there games you recommend for education and why?

- What is your view on the use of non-commercial games vs commercial games? Noncommercial games are made for a specific purpose, like education, while commercial games are made for entertainment.
- 2. Which benefits and challenges, in your point of view, are there when using both commercial and non-commercial games in the English classroom?
- 3. What are your thoughts concerning the use of commercial and non-commercial games in the English classroom based on your own experience and training?
- 4. In what ways do you think gaming can be useful in the teaching of English, and for what purposes?
- 5. What learning aims could it support?

6. Teacher beliefs about digital games in the English subject.

- 1. What are your beliefs concerning the use of digital games in the English classroom?
- 2. Why are your views on digital games in the classroom positive/negative?
- 3. What relationship do you think your colleagues have as a whole to the use of digital games in education?
- 4. Which of these statements do you think is more true and why?

Statement 1: "It is primarily young newly-educated teachers that are using digital games in the English subject?"

Statement 2: "Age is not an important factor for which kind of teacher uses games in the English subject, personal interest is more important."

- 5. Which of the above statements are most fitting for your colleagues?
- 6. Sundqvist and Sylven (2016) did an empirical study that revealed that extramural English activities (in this case the use of digital games) were beneficial for L2 language learning. What is your thoughts on this statement: "The use of digital games at home improves the L2 language skills of children/young adults".

7. Teachers thoughts on students beliefs

- 1. What beliefs do you think your students have concerning the use of digital games in English education?
- 2. Why do think your students experience increased/reduced motivation if you have/have not used digital games in the English classroom?
- 3. Which of the following statements do you think is more true and why?
 - Statement 1: "Students get more motivation from the digital games because they enjoy diverse methods of teaching in the English subject".

Statement 2: "Students get more motivation from digital games in the English subject because they enjoy using a media they normally associate with entertainment."

- 4. Do you have an impression that your students spend a lot of time in front of a screen? How do you think this could be a benefit or a challenge to the way you teach English?
- 5. What are your beliefs concerning how the school is getting increasingly more digitalized?
- 6. In a survey conducted by Medietilsynet we get to know that 96% of the boys and 76% of the girls are playing computer games. It is also commonly known that school is an arena that the girls are better suited for, compared to the boys, and this is shown through that the grade average for girls a higher than the boys. Do you think that utilizing a media that boys know better could help even out those differences that have appeared?

Link til medietilsynet: https://www.medietilsynet.no/globalassets/publikasjoner/barn-og-medier-undersokelser/2020/200402-delrapport-3-gaming-og-pengebruk-i-dataspill-barn-og-medier-2020.pdf

 $SSB\ link:\ \underline{https://www.ssb.no/utdanning/grunnskoler/statistikk/karakterer-ved-avsluttet-grunnskole}$

Appendix F Student questionnaire approved by NSD.

Elevspørsmål

Informasjon

Du har blitt bedt om å delta på denne spørreundersøkelsen fordi din lærer eller noen som medvirker til engelskundervisningen din har sagt ja til å være med på mitt mastergradsprosjekt. Prosjektet gjennomføres av Karl-Erik Hansen (student) og Torill Irene Hestetræet (veileder) ved Universitetet i Stavanger. Prosjektet handler om lærere og elevers holdninger til bruken av digitale spill i engelskundervisningen. Informasjonen vil bli lagret elektronisk via Universitet i Stavanger sin elektroniske spørreundersøkelsesportal (SurveyXact) og vil bli slettet ved prosjektets slutt, men summen av datamaterialet vil bli offentligjort sammen med oppgaven på universitetets arkiver (Brage).

Du har lov til å si nei til å delta på denne spørreundersøkelsen. Dersom du ikke ønsker å delta gi beskjed til din lærer i den aktuelle timen så vil læreren gi deg noe alternativt å gjøre. Dersom du sender inn det elektroniske spørreskjemaet forståes det som aksept til å delta i prosjektet.

1. Jeg identifiserer meg som...?

Mann/Gutt Kvinne/Jente Annet

2. Hvor mye spiller du digitale spill (dataspill, playstation, Xbox, mobilspill osv.) på fritiden? Alternativer målt i antall timer i uken.

Mindre enn 3 timer i	3-7 timer i	7-15 timer i	15-24 timer i	Mer enn 24 timer i
uken	uken	uken	uken	uken

3. Omtrent hvor mange timer bruker du foran PC-en og mobilen iløpet av en uke, både på skolen og ellers til sammen?

4. Jeg er positiv til bruken av spill i undervisningen?							
Uenig	Delvis uenig	Nøytral	Delvis enig	Enig			
5.	5. Vurder utsagnet: Vi bruker mye spill i engelskundervisningen?						
Uenig	Delvis uenig	Nøytral	Delvis enig	Enig			
_	6. Vurder utsagnet: "Jeg lærer mer engelsk når læreren lar oss spille digitale spill i engelskfaget."						
Uenig	Delvis uenig	Nøytral	Delvis enig	Enig			
7. Vurder utsagnet: "Jeg blir mer motivert når man bruker spill som undervisningsverktøy sammenlignet med vanlig undervisning i engelskfaget?"							
Uenig	Delvis uenig	Nøytral	Delvis enig	Enig			
8. Vurder utsagnet: "Min lærer er positiv til bruken av dataspill i engelskundervisningen." Husk dette er ditt inntrykk så det er ikke et "rett svar her".							
Uenig	Delvis uenig	Nøytral	Delvis enig	Enig			

9.

Vurder utsagnet: "Jeg bruker for mye tid foran en skjerm iløpet av en dag."

Uenig	Delv	ris uenig	Nøytral	Delvis enig	Enig
Læres Under	visning pill er s holdnir		a grammatikk som	for eksempel K	•
Kun lærespil	1	Kun underholdningss	pill Be	egge deler	Ingen av delene
		e bruker lærespill, hvor			ndervisningen? Dersom uke disse spillene?
velger	m din l	ærer ikke bruker under bruke underholdningss	holdningsspill i u	ndervisningen, h	engelskundervisningen' vorfor tror du din lærer
13.	Mene	r du at du lærer mest e			
		D° 1 1	n	Leg spill	'11 4 1
Hjemme		På skole		Jeg spin	er ikke noen av stedene

Appendix G Screenshots from the digital questionnaire with added directions before the open-ended questions.

L	
1	Universitetet
ļ	i Stavanger
	100%
D dı	enne spørrsundersøkelsen er en del av min mastergradsoppgave ved Universitetet i Stavanger. erfor ønsker jeg å takke deg for din deltagelse. Husk at det er frivillig å delta i denne undersøkelsen, så dersom du ikke ønsker å delta så trykker u deg ut av denne undersøkelsen og din lærer vil gi deg et alternativt opplegg dersom denne gjennomføres i en skoletime. et er viktig for meg at du svarer så ærlig som mulig og at man ikke oppgir tullesvar. Dersom dette forekommer så blir undersøkelsen din trukket.
D	u er også nødt for å svare på alle spørsmålene for å fullføre undersøkelsen. Den burde ikke ta mer enn 10 minutter å fullføre.
T	usen takk for din deltagelse. arl-Erik Hansen
IX	di Park Hausen
Η	Ivilket kjønn identifiserer du deg som?
(Mann/Gutt
(Kvinne/Jente
(Annet
	<i>J.</i>
Н	Ivor mye spiller du digitale spill (dataspill, Playstation, Xbow, mobillspill osv.) på fritiden. Alternativene er antall timer i uken.
(Mindre enn 3 timer i uken
(3-7 timer i uken
(7-15 timer i uken
	15-24 timer i uken
(Mer enn 24 timer i uken
C	Omtrent hvor mange timer bruker du foran PC-en og mobilen iløpet av en uke, både på skolen og ellers?
٢	
På d	e neste sporsmålene vil du få presentert en rekke utsagn som du skal vurdere. Du kan svare enten uenig, delvis uenig, nøytral, delvis enig eller enig på disse. Velg det
alter	nativet som passer deg best. g er positiv til bruken av digitale spill i engelskundervisningen".
_	
	Uenig Delvis uenig
	Noytral
\circ	Delvis enig
0	Enig
"Vi	bruker mye spill i engelskundervisningen".
0	
_	Delvis Uenig Noytral
0	Delvis enig
0	Enig
"Jeg	g lærer mer engelsk når læreren lar oss spille digitale spill i engelskfaget".
0	Uenig
0	Delvis Uenig
-	Noytral
O	
_	Delvis enig Enig

"Jeg blir mer motivert når man bruker spill som undervisningsverktøy sammenlignet med vanlig undervisning i engelskfaget".	
O Uenig	
O Delvis Uenig	
O Neytral	
O Delvis enig	
O Enig	
"Min lærer er positiv til bruken av dataspill i engelskundervisningen". Husk, dette er ditt inntrykk så det er ikke et rett svar her!	
○ Uenig	
O Delvis Uenig	
O Nøytral	
O Delvis enig	
O Enig	
"Jeg bruker for mye tid foran en skjerm iløpet av en dag".	
O Uenig	
O Delvis Uenig	
O Neytral	
O Delvis enig	
O Enig	
"Jeg lærer mer engelsk når jeg spiller digitale spill eller bruker andre medier hjemme enn på skolen. (Andre medier kan være sosiale medier, musikk, film eller tv-serier).	
O Uenig	
O Delvis Uenig	
O Nøytral	
O Delvis enig	
O Enig	
Bruker læreren din hovedsakelig digitale lærespill eller underholdningsspill i engelskundervisningen? Lærespill er spill som lar deg øve på grammatikk, som for eksempel Khan Academy. Underholdningsspill er spill som er ute på markedet for salg (som Assassin`s Creed, The Walking Dead og lignende)	
Kun lærespill	
Kun underholdningsspill	
O Begge deler	
O Ingen av delene	

Du er nesten ferdig med undersøkelsen min nå. De neste spørsmålene er spørsmål hvor du får anledning for å svare med dine egne ord. Her er det et par viktige spilleregler som gjelder. 1. Undersøkelsen din er anonym, så derfor er det viktig at du ikke oppgir informasjon som gjør at noen kan gjenkjenne deg. (Som hvordan du ser ut, hva læreren din heter og hvilken skole du går på).

2. Det er viktig at dere svarer med noe på disse spørsmålene og ikke svarer kun med spørsmålstegn eller punktum for å komme videre. Svar med minst 2-3 setninger pr spørsmål. 3. Samtidig som det er viktig at dere svarer, så blir det også satt en begrensning på hvor lange svar dere kan gi. Det vil bli satt en begrensning på 150 ord som lengste svar mulighet. Dette er ca et avsnitt. Hvorfor tror du din engelsklærer bruker lærespill i engelskundervisningen? Dersom din lærer ikke bruker lærespill, hvorfor tror du din lærer lar være å bruke disse spillene? B *I* <u>U</u> | **:**≣ | Size 13. Hvorfor tror du din engelsk lærer bruker underholdningsspill i engelskundervisningen? Dersom din lærer ikke bruker underholdningsspill i undervisningen, hvorfor tror du din lærer velger å ikke bruke underholdningsspill i engelskundervisningen? Mener du at du lærer mest engelsk av å spille digitale spill hjemme eller på skolen? O Hjemme O På skolen Jeg spiller ikke noen av stedene. Hva lærer du av å spille engelskspråklige digitale spill? (Uansett om det er hjemme eller på skolen) B *I* <u>U</u> | **:**≣ | Size > AVSLUTT