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## **The Potential for Empathy Learning through Video Games**

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## Abstract

This thesis has looked at the potential for empathy-learning and exploration of ethical issues through the use of narrative video games in education. Video games is a relatively modern medium that is unique in the sense of the level of interaction, player-agency and engagement it has the potential to produce. Video games can be used as story-telling devices within education, along the lines of traditional narrative text, while also allowing players to craft their own player-generated narratives. To explore the potential for empathy learning and exploration of ethical issues, the thesis presents an analysis of a narrative apocalyptic video game in the survival genre, *Frostpunk* (11 bit games, 2018). The video game's framing of ethical issues and its potential for empathy learning is examined in relation to the notion of *persuasive games*, curricular texts, and genres. Based on the previous analyses, this thesis includes suggestions of how to engage *Frostpunk*, and by implication of other similar games, in both the English subject and to teach interdisciplinary subjects such as *Democracy and citizenship*, and *Sustainable development*.

The study concludes that there is potential to use commercial video games as a platform for empathy-learning, while acknowledging that there are practical and pedagogical concerns and challenges with respect to implementing them in an educational setting.

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# 1 Introduction

## 1.1 Video games in school and research

Video games have grown in popularity across the globe in the last decades and most teens in Norway have a connection to video games outside of school. A research report from *Medietilsynet* shows that 86 percent of 9- to 18-year-old children (n=3400) play video games (Medietilsynet, 2020). As a response to this development, the use of video games in classrooms is on a steady increase. A possible reason behind this increase may be the sense that video games, due to their popularity, may have a capacity to build bridges between the students' every-day life and their life inside school. Even so, there is a lack of research about using video games in school and education. Practicing teachers might plausibly have different opinions about how video games should be applied in school, and to discuss the efficiency of learning through video games we need to achieve a deeper understanding of their potential for learning.

A concern for teachers wanting to engage with gaming culture is bullying. The Student Examination 2020 from the Norwegian Directorate for Education and Training shows that 5,8 percent of the students in Norway experienced being bullied two to three times every month or more, often at school, while 2,2 percent experiences reported being cyberbullied (Wendelborg, 2020). Video game culture is often surrounded by negative expectations in this respect, since gaming addiction, cyberbullying and harassment continue to be problems within gaming environments. The online far-right social movement *GamerGate*, which started in 2014 to counteract the rising influence of feminist influence on the gaming industry. *GamerGate* began as a harassment campaign directed towards female game developers, but consequently a discussion of social justice within the industry was brought to the internet mainstream.

This was still possible to see in the many strong negative reactions from gamers in comments sections and on social media regarding the release of *The Last of Us 2* (Naughty Dog, 2018), where the female protagonist, Ellie, was revealed to be in a relationship with another woman in the game. Such examples show us that bullying, harassment and xenophobia are problems that still exist on the internet and in the everyday life of Norwegian students. How can teachers, then, use video games to counteract students' negative social attitudes?

The core curriculum of 2020 states, under *Social learning and development*:



*When interacting with their pupils, the teachers must promote communication and collaboration that will give the pupils the confidence and courage to express their own opinions and to point out issues on the behalf of others. To learn to listen to others and also argue for one's own views will give the pupils the platform for dealing with disagreements and conflicts, and for seeking solutions together. Everyone must learn to cooperate, function together with others and develop the ability to participate and take responsibility. (Norwegian Directorate for Education and Training, 2020)*

This means that the teacher must have an active role regarding the promotion of empathy and teach the students to handle difficult social interactions. Every interaction is different, and as teachers we must adjust and find our own ways of teaching empathy efficiently. Such concerns have already started to influence game development. The *Center for Healthy Minds* produced a videogame called *Crystals of Kaydor* in order to study the efficiency of using video games to develop young people's empathy through learning to read face expressions (Kjørstad, 2018). To test if the game made players more emphatic, they instructed half of the 74 participants within the age gap of 11-14 years old to play *Crystals of Kaydor* for two weeks, while the other half was instructed to play the commercial game *Bastion*. The results of the research showed changes in the neural pathways in the brains of the participants which are connected to empathy, which could indicate that it is possible to use videogames to affect the learning of empathy. However, while they did see concrete changes within the brain, there was no concrete evidence as to precisely what those changes meant, and there were no measurable changes in behavior among the participants. Studying empathy by measuring the brain contributes to an overall understanding of how the humans develop empathy, but it is difficult to arrive at conclusions of how effective empathy learning is with this kind of data material.

While *Crystals of Kaydor* is an example of game design that actively tries to teach the players something, commercial video games are designed primarily for entertainment purposes. Although commercial media is driven by their consumption, it is still possible to learn from commercial story-telling in all forms. Likewise, story-driven or narrative video games, serve as a platform for a variety of stories that can provide insight into other cultures and lives. Narrative games like *Gone Home* (The Fullbright Company, 2013) puts the player inside the thoughts of a young woman who arrives at her childhood home and is trying to find out what has happened with her missing parents. The player is given little instruction about what to do

and minimal introduction to the story of the video game. In this way, the player has to explore and piece together the story independently. As the player gets to know their character through narration and notes they find, they form their own interpretation of her. In the later part of the video game, the player can find notes about her relationship with another girl. This allows the player to humanize and empathize with the character before it is revealed that she has a different sexual orientation which is often met with homophobia. This makes *Gone Home* is an example of a believable story that has the potential to affect players and could have the potential to change their attitudes and opinions.

The English subject is both a subject in its own right with an interdisciplinary identity, spanning language, culture, history, and society. In this sense, the English subject can, and should, be opened up for collaboration with other school subjects as part of interdisciplinary teaching. Language subjects have great potential to be taught in a great deal of ways to both explore new and exciting subjects while, at the same time, teach language. In the relatively new curriculum for 2020, compared to the curriculum for 2006, competence aims has been formulated in a way that allows teachers to be freer in what methods and topics to use in classrooms to teach. Using narrative texts and feature films in English lessons is a common way to contextualize language learning through content-based teaching.

Video games could be also be beneficial to contextualize content-based learning, but could also be beneficial to contextualize language learning though cooperation-based games and communicative exercises. Video games can contribute to a visual and interactive learning experience and every game is unique in presentation and functions. We can see that there is potential in video games to tell stories with complex themes and detailed characters that can promote an emotional response from the player. In the research about the connection between narratology and ludology (the study of games) there is a discussion about the extent to which video games can be defined and used as literature in teaching.

## **1.2 Aims and research questions**

In his doctoral thesis, *Reading the Game* (2018), Andrew C. Turley has argued that video games can be interpreted as narrative literature. If we, along these lines, interpret narrative video games as literature and assume it has potential to be used in education in a similar way to other literature, such as fiction, non-fiction, movies, comic-books, etc., we can study what properties video games have that can contribute to learning of empathy. Empathy learning in school may benefit from the capacity of video games in order to create a deeper immersion in

stories, which in turn could lead to a deeper understanding of other life-perspectives. The aim for this research is to find out and discuss what kind of potential that exists in narrative video games to teach empathy in 8<sup>th</sup> to 10<sup>th</sup> grade in Norwegian schools. This master thesis will attempt to answer this through a research question:

- How can narratives in video games have potential to stimulate students' learning of empathy and exploration of ethical issues?

To find the answer to this research question, I will analyze the videogame *Frostpunk* (11 bit studios, 2018) with an approach to narratological analysis, theories of ethics and empathy, analysis of curricular goals and a consideration of essential institutional and material possibilities and constraints for this kind of material to be used in an educational setting.

## **2 Theory and relevant research**

This chapter aims to discuss theoretical approaches to using video games in educational settings, and will provide the basis for discussing the potential for empathy learning through video games. The main themes through this chapter are about interpreting video games as literature, the persuasiveness of video games and what makes video games suitable to be used as tools to enhance teaching. With reference to the work of Ian Bogost (2008), James P. Gee (2003), Andrew C. Turley (2018), I will attempt to establish a theoretical background for exploring video games in terms of importance of empathy learning and exploration of ethical issues in education. In addition, I will use the Norwegian curriculum for 2020 to frame the theory within this chapter to the present state of education and ethical theory to explore the ethical issues presented in the game, *Frostpunk*.

### **2.1 Video games as literature**

In *The Rhetoric of Video Games* (2008), Ian Bogost argues against the common perception that playing video games is purely beneficial for leisure and entertainment. Instead, he argues, they may be considered as a new form of expression similar to other playful expressions, such as poetry, fiction, and movies. While similar to these traditional expressions, video games make claims about the world which players can understand, evaluate, and deliberate (p. 119-120). Furthermore, video games allow the player to experience other perspectives through simulation, player influence and storytelling. These unique features of video games can provide a platform for stories enabling players to empathize with life situations they are unfamiliar with.

Narrative games also share narratological elements with feature films and literary fiction, such as action, characters and conflict. On this background, researchers James P. Gee (2003) and Andrew C. Turley (2018) argue that, since narrative games thus also consist of elements with feature film and literary fiction, such as action, character and conflict, we may explore their learning potential by interpreting video games as literature and players as readers. But the research on the topic of interpreting video games as literature shows that only a few games that have been analyzed as literature, and Turley encourages future teachers and researchers to explore the relationship between cultivating empathy learning and video games (2018, p. 108).

### **2.1.1 Analyzing video games as literature**

Communicating through visual symbols, such as images, symbols, diagrams, and digital objects, is very important in modern communication. For example, symbols are often used to make it easier to decode what function a button has, without explaining explicitly through text or language. We *read* images and draw meaning from them, regardless of what the authors mean by using these images. Video games often use visual elements to provide unwritten meaning to story or game functions, such as the hearts in The Legend of Zelda games represent the player character's hit-points within the game, but also the life of the character. By using visual symbols in literature, the reader is forced to interpret them if their meaning is not clearly defined by the author through text and language. The reader is also forced to shape his own opinion through critical thinking and their own reflections (Gee, 2005, p. 16). Regarding written texts, one can read sentences literally, but to understand what the author means one must interpret what is written in context with the rest of the text story (Gee, 2005, p. 13-16).

As these forms of reading and writing can be found in many different forms of media, Gee (2005, p. 17-18) argues limiting the definition of what literacy is to traditional terms of printed text is counterproductive and video games especially could be defined as literacy. Gee uses the term *semiotic domains* to talk about the communication of meaning in multimodal practices, which can be seen in how terms, symbols or gestures mean different things depending on the domain. An example of a semiotic domain could be the genre of first-person shooter (FPS) games, where the term "ace" is not used to describe the ace in a deck of cards, but rather when a single player kills all the opponents in a single round. Another term within the semiotic domain of FPS games, "camping" does not mean the act of spending the holiday in a tent, but rather sitting still for an extended period of time to catch their opponent by

surprise. This means that a player can be literate enough to *read* and *write* within the semiotic domain of a video game genre, while being illiterate in other domains.

Narrative video games are unique in how they respond to the player who *reads* them and is often designed to provide the player with individual experiences based on the player's actions, which can be called *player-generated narratives*. Turley (2018) presents a theory of player-generated narratives which describes the relationship between playing / reading the video games and their mental decoding. In this relationship, which distinguishes video games from literary narratives, players become a kind of co-author and participant in their own generated narrative, at the same time as they are observers of what happens in the narrative (Turley, 2018, p. 11-13). This means that the game narrative will always vary, and players may experience different things based on their actions within the game because the players that place themselves in the game narrative are different in nature. Turley argues (2018, p. 112-114) that bringing video games into literature classrooms is not unlike using film, television, comic books or other types of literature in educational settings. Yet, video games provide additional unique reader participation to produce within the work rather than just consuming, which could be beneficial when using literature in classrooms.

### **2.1.2 Games and their genres**

A game such as *Frostpunk* can be described in terms of several game sub-genres, such as strategy games, city builder games and colony simulator games, but can best be understood as a survival game. In the survival genre, the goal is to survive difficult circumstances that challenge the player and his/her character(s) for as long as they can. In such games there is often no end goal, and the game can last for as long as the player survives. The player often begins with little access to resources and must find new sources of resources to continue surviving. Survival games evoke feelings of desperation and worry when the player is in dire circumstances but can evoke feelings of progression and skill when you overcome the challenges the game provides.

*Frostpunk* can also be described with reference to the genre of dystopian literature, which can be defined as a genre and literary tool that presents a future in which society changes drastically for the worse due to a worldwide event, such as environmental disasters, technological surveillance and government repression of individual freedom and expression. Arguably, the most famous example of dystopian fiction is George Orwell's *1984*, which portrays an ominous mass surveillance caused by the idea of "Big Brother" in a futuristic

Great Britain. By using such a depiction of the future, the player is made to reflect on the real society that exists in the present, as well as how our reality can develop into a dehumanizing and frightening dystopia (LiteraryDevices Editors, 2013).

*Frostpunk*, not least by virtue of its name, recalls the steampunk genre, a retro futuristic subgenre of science fiction, where 19<sup>th</sup> century industrial revolution technology and ideas are portrayed as efficient enough to keep the culture and the aesthetics for the period of time from developing or evolving for decades after the real-world period ended. The steampunk genre is often used for writing alternative histories and is characterized by the use of steam powered machinery and clockwork mechanisms, technologies that have been replaced by efficient computer technology in the present. *Twenty Thousand Leagues Under the Sea* written by Jules Verne (1870) is considered to be one of the first depictions of steampunk, where the story follows the crew aboard a high-tech submarine called *Nautilus* during the 19th century. Two popular video game franchises, *Bioshock* (Irrational Games, 2007) and *Fallout* (Black Isle Studios, 1997), explore the similar style of dieselpunk, which depicts the interwar period of the 1950's in America with a retro futuristic expression. The inspiration for the steampunk genre is most likely taken from the predictions of the future portrayed by artists and inventors living during the industrial revolution.

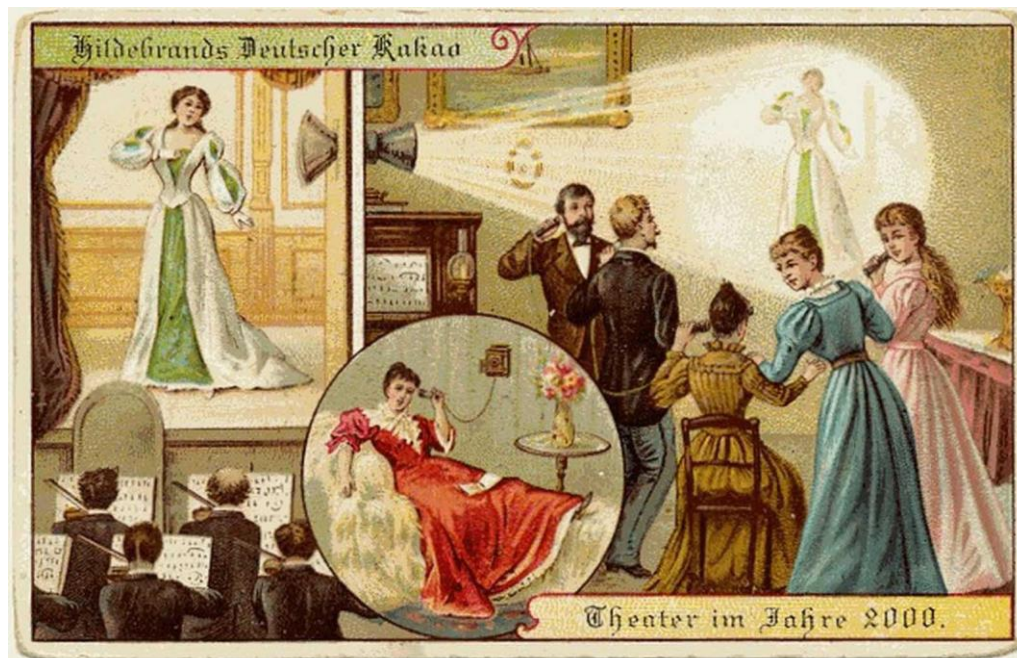


Figure 1: Postcard made by Theodor Hildebrand & Son in 1900 depicting a broadcast of a theater performance in the future year of 2000. Taken from rarehistoricalphotos.com.

The conflicts particular to *Frostpunk* are created by a global environmental freeze and the dictator-like role of the player. In a world constituted by elements from survival games,

steampunk, and dystopian literature, the *Frostpunk* player's needs to make difficult ethical choices for the characters to succeed in surviving. To survive, the player has to manage and maintain several different systems, such as gathering food and building infirmaries, that are paramount in order to keep the population within the video game's world alive. In dire situations, the population confronts the player and requires them to make ethical choices to ensure survival or risk being thrown out of the colony.

## 2.2 Using video games to persuade

Narrative genres as such, beyond *Frostpunk*'s particular world, have their own way of creating different possibilities for creating gaming experiences and therefore also pedagogical possibilities. To persuade can be defined as to change someone's perception, thoughts and feeling of something through reasoning or argument, but games, however, operate differently regarding persuasion, mainly through immersion and engagement. To persuade is a part of the pre-emptive actions taken against xenophobia. If teachers want to do this, they have to find ways for students to understand what others think, feel and experience (Norwegian Directorate for Education and Training, 2020). Literature is already frequently in used in teaching to provide an understanding of other perspectives and lives. But for literature to be persuasive, it is not enough to explicitly tell the reader what morally correct attitudes and thoughts are, but rather show and enact moral dilemmas and conflicts.

In *Persuasive Gaming in Context* (de la Hera, T. Jansz, J. Raessens, J. & Schouten, B., 2021) the authors propose different strategies that game developers use to create more persuasive games. In order for teachers to influence the empathy learning of the students and persuade, the authors argue, one must find good ways to present why they should change their mind. Bogost (2008, p. 113) argues that a good persuasive game does not attempt to "brainwash", but rather provides an understanding for further inquiry, agreement, or disapproval. Video games are often created to express something about the real-world which players can learn to read and critique. By using a video game to educate students about a problem within society, teachers can help them address these issues in the real-world (Bogost, 2008, p. 120).

Virtually all games convey meaning and players are influenced and persuaded in different ways, as well as in varying degrees. De la Hera and Raessens (De la Hera et al., 2021, p. 58-60) therefore argue that there are definable characteristics in video games that can be used to produce effective persuasion. In order for players to be persuaded by video games, one must try to shape, strengthen or change the attitude of the players. Attributes such as giving the

player more *player-agency* (the player's ability to influence the game) and freedom to make their own choices are positive for being more persuasive because the player is given less explicit instructions on how to behave (De la Hera et al., 2021, p. 60). It is also argued here that it is not only the rules of the game that convey meaning, but it is also important to recognize that other video game elements, such as the visuals, the sound and the story can affect how the player perceives the content of the game (De la Hera et al., 2021, p.61).

Empathy has been explored through the study of Human-Computer Interaction (HCI), which attempts to examine the interplay between technology and human input. The goal of HCI research is to discover new and more efficient ways that computers can emulate human interaction with other humans, which in turn makes computer technology easier to use and reduces the requirement for technology competence use it. This concept is used in products such as operating systems such as windows, or smartphones such as Apple's iPhone to make the user experience easier for consumers of such products. Regarding the study of HCI, there is made a connection between the level of immersion and inclusion of human experience within games to foster empathy arousal within players (De la Hera et al, 2021, p. 97-98). De la Hera and Raessens argue that system-immersion can help players temporarily inhabit another person's perspective and to feel what they feel (De la Hera et al, 2021, p. 114). In light of this, the level of immersion of a player could be based on the quality of human senses a game manages to emulate, such as visual perspective, physical movement and emotion. For example, playing video games with a first-person perspective through a Virtual Reality machine might help players empathize with characters that are human-like in the way they display emotion and expression. Such immersion within a video game allows the players to more easily project their own identity onto the character of the game, which can meld the player and the player's character, and make them perceive their characters decisions as their own.

A persuasive video game can either shape new attitudes, reinforce attitudes or change attitudes. To accomplish this, there needs to be established a balancing act between the game's goals, which could be, for example, to help refugees get over a border, and persuasive goals that can affect the level of persuasion. An example of a persuasive goal within a game could be to create compassion for refugees who are trying to escape from war. If the player has little to none established knowledge or opinions regarding a persuasive goal, a game could be used to shape new attitudes with the player. When trying to shape new attitudes with a player, De la Hera and Raessens claim that the most efficient way to achieve this is by



having the persuasive goal and game goal overlap. Meaning, that to persuade a player to behave a certain way, the player is encouraged to play with the intended behavior to achieve victory in the game. In the example of helping refugees over the border, the persuasive goal and game goal overlap in this way to shape a new attitude (De la Hera et al., 2021, p.63-64).

Depending on the player's already existing attitude toward such a persuasive goal, persuasive games could also be used to reinforce attitudes or change attitudes. De la Hera and Raessens claim that if one wants to strengthen the player's attitude, the goal of the game and persuasive goals should be *aligned*, and not *overlap*, which will be positive because the player is already geared towards the same goal. They also add that the purpose of persuading should be to give extra support or motivation to engage in the specific behavior that is wanted (De la Hera et al., 2021, p.64-66). If the player already thinks it is positive to help refugees, to reinforce their attitude the most efficient way could be to provide deeper context by framing the game in a different setting to the persuasive goal. For example, a game could be designed around the premise that a lonely duck wants to cross a road to reunite with their family on the other side but needs the player's help to convince the road workers to stop working for a while so the duck can cross safely. In this way, the game goal is *related* to the persuasive goal, but does not overlap directly with it.

If the player should have the opposite opinion to the explicit or implicit persuasive goal of the persuasive goal, knows a lot about the topic from before, and has laid the foundation for their opinion, there could be resistance to change attitudes. If such resistance to being persuaded arises, De la Hera and Raessens claim that it is better that the goal of the game and the persuasive goal is completely different from each other. (De la Hera et al., 2021, p.66-68). For example, this could happen when the player is a border guard tasked with shooting people trying to cross the border illegally and is rewarded in-game for doing so, but the games show the refugees' genuine cries of agony and families grieving over their lost family member. If such a portrayal the hardships of the refugees is done with authenticity, the player could stop shooting the refugees and the game could maybe trigger another state of narrative where the player starts helping them instead by their own volition.

### **2.2.1 Procedural Rhetoric**

The goal of persuasive games is to operationalize the real world within video games and translating systems from the real-world into representations of those systems within video games. The problem to be for the teacher to solve is to present real-world issues genuinely,

while at the same time being able to deploy pedagogically. Here, it is important to distinguish between the idea of *simplifying education* and *adapted education*. While *simplifying* is a technique to make an issue more digestible for students with less pre-knowledge about a specific issue, it also distills the complexity of an issue which in turn could distill the possible learning outcome. What persuasive games aim for is to preserve complexity and enable learning by simulating and contextualizing it through immersive computer-based experiences. In order to explain this practice, Ian Bogost introduces the term *procedural rhetoric*, in which the word *procedural* refers to understanding processes and *rhetoric* refers to persuasive and effective persuasion. Thus, *procedural rhetoric* can be defined as the practice of using of using processes to persuade (Bogost, 2007, chapter 1, para. 5). *Procedural rhetoric* distinguishes itself from other types of rhetoric, such as verbal rhetoric where persuasion happens through oral speech, because it is specifically used to describe computer-based persuasion (Bogost, 2007, chapter 1, section 9, para. 1).

The world is full of complexities and using procedural rhetoric to design an experience of it to teach such an issue is a technique that can be used by game designers. To build models that represent something from the real-world that a user can experience through computer processes. Computers can be used as model building machines, where a crafted model experience could explain and demonstrate through, for example, a combination of visual elements, simulation and audio to teach and persuade the user. In this sense, limiting oneself to oratory or visual persuasion could have less impact than, for example, using a multimodal medium such as video games.

Bogost (2008, p. 119) writes about the game *Animal Crossing* (Nintendo EAD, 2001), as an example of a video game where real-world concepts such as long-term debt and consumerism are prevalent. In this video game the presentation of long-term debt and consumerism, whether intentional or not, can be interpreted as the developers wanting to draw attention to their real-world equivalent. Since *Animal Crossing* is a video game directed towards children and youth, players of all ages can experience being an adult in a capitalist society through simulation, with all the positive and negative consequences that entails.

When starting the game, the player is given a deserted island that is filled with wildlife, characters and resources. On this island the player can farm, build and explore, but as the game progresses their economical responsibilities start to manifest where they must pay their mortgage on their house, which often means they must acquire loans to pay them when they

are due. In this way, players are slowly introduced to adult responsibilities in a natural progression.

Mortgages and loans and loan interest is hard to explain to children, but experiencing it first hand in a risk-free environment could illustrate it in a playful and engaging way. This contextualizes the concepts that the player can learn which could be beneficial for the learning outcome of the game, but the player does not necessarily connect the in-game representation of the issue to the real-world equivalent. This is where guided *reading*, discussion and reflection outside of the video game is important to relate the player's learning to the real world.

## 2.3 Using video games in school

### 2.3.1 The Norwegian Curriculum for 2020

The curriculum for 2020 (LK20) consists of a core curriculum, lesson distribution for subjects, curriculums for subjects and competence aims for subjects. The core curriculum functions to give a description of the fundamental approach to teach the values and principles for the primary and secondary education in Norway. Within the core curriculum, there are two interdisciplinary topics, *Democracy and citizenship*, and *Sustainable development*, that could be relevant to this thesis because of the topics within the chosen video game, *Frostpunk*. In *Principles for education and all-around development*, the first principle of *Social learning and development* seem to be relevant because of the topic of empathy, ethics and moral in education, which are directly related to the research question in this thesis.

To use video games in the same sense as literature in education makes specific competence aims relevant for this thesis. Here, I exemplify how to adapt video games to education with the English subject, but these ideas could be applied to a variety of subjects. Three competence aims within English seem particularly appropriate to this thesis:

- “use different digital resources and other aids in language learning, text creation and interaction”
- “read, interpret and reflect on English-language fiction, including young people’s literature”
- “read, discuss and present content from various types of texts, including self-chosen texts” (Norwegian Directorate for Education and Training, 2020)

The first competence aim relates to the use of digital resources which can be interpreted as using video games to aid in language learning, text creation and interaction. When combining the two last competence aims in a teaching scheme, the work of the students is directly related to using literature and fiction in classrooms to read, reflect and produce work based on literature.

### **2.3.2 The learning potential of video games**

Visual symbols take up more and more space in the world and school learning, such as more pictures in textbooks, multimodal texts, and video (Gee, 2005, p. 13). Due to this increase, bringing in computer-based teaching into classrooms has become more accepted as a viable option to be explored. Video games are often overlooked as mere entertainment and not as teaching tools, yet good learning principles can be found in most good video games, such as that it allows students to be producers and not just consumers (Gee, 2003, p. 2). Gee (2003) argues that good games are developed in such a way that naturally structures learning within them through common gameplay elements, such as tutorials, which makes good games align with how teachers structure teaching for students to enhance learning. To illustrate this, Gee discusses 36 learning principles that are common to be incorporated into “good games”. Here are two examples of these learning principles:

- Good games give information in context of when and where it is relevant for its use. Contrary to an instructional manual, this progressive spread of information serves to not overwhelm the player. When students are given too many instructions or information at a time, it is harder for them to remember later when it is relevant to use it (Gee, 2007, p. 2).
- Good games introduce concepts and challenges that are easy to solve in the first stages, and progressively makes them harder to overcome to continuously challenge the player. In education, teachers adopt the same technique to enhance learning. When students practice a skill or problem repeatedly while being challenged appropriately it creates a cycle of improvement which leads to mastery (Gee, 2007, p. 2-3).

These discussions of learning principles show that there is potential to use “good” video games in suitable educational settings, but what is left to explore is what defines a “good” game for educational purposes more precisely in terms of empathy learning.

The potential for learning through video games is defined by the different characteristics of each specific game. Games that are suitable for school are often characterized by the degree

of difficulty of the video game, short playing time to complete, are entertaining, avoid sensitive topics and avoid graphic violence. Here, games can be divided into three categories: Games made for school, commercial games, and political games. Games created with educational elements are often simple customized experiences that focus on passing on knowledge or learning a skill, while most games are commercial and independent of having to learn something from the player. The third category, political games, are games made to critique and spark discussion about certain topics or offer players a fictionalized representation of how certain things work in the real world. These political video games are not necessarily driven by commercial value or their ability to be used in education. An example of a political game, also known as newsgames, is *McDonald's Video Game* (Molleindustria, 2006), which was a free online satirical parody game that had players manage the McDonald's industry while showing the player the various unethical shortcuts the McDonald's company takes to ensure profit. For example, the player can add growth hormones to the cattle's food which makes them produce more meat, bribe health officers or destroy rainforests to make space for farmland.

While all three game categories could be used in an educational setting, commercial games might be the hardest to adapt to teaching because of their amount and variety of content. Commercial games often hold learning potential, yet it requires teachers to have knowledge about what game to choose and how to extract learning potential from games.

*Good learning in games is a capitalist-driven Darwinian process of selection of the fittest. (Gee, 2003, p. 1)*

This means that pulling learning potential from video games is a complicated task that requires a lot of preparation and planning on the part of the teacher, since there is no set way and a lack of resources for using commercial games in education.

## **2.4 Choosing a game**

To form criteria to choose a game for this thesis it seemed important to assess games in how they could be relevant to teach empathy and explore ethical issues in an educational setting. In order to be able to find video games for use in secondary school, it seemed important to choose a game that suited the topic of empathy and the use of video games in the 8<sup>th</sup> to 10<sup>th</sup> grade. I wanted the game to foreground ethical issues by using interactive elements forcing the player to let the player take a stand on ethical issues. The game had to be relatively easy to play and the game had to have an age limit of 16 years or less to suit 8<sup>th</sup> to 10<sup>th</sup> grade students.

The first video game that was considered was *This War of Mine* (11 bit studios, 2014) because it fits the criteria that was made, unfortunately with the exception of its age rating. *This War of Mine* is a survival game where the player controls a group of civilian people who lives in a besieged city, which contrasts most war-games with the player controlling soldiers participating in war. As *This War of Mine* portrays how civilians struggle in war, it represents a perspective that is explored through most literary genres, such as the feature film, *Schindler's list* (Spielberg, 1993) or *The Diary of a Young Girl* by Anne Frank (1947), but less often in video games.

In *This War of Mine*, the player's characters live a torn apart house where the player is tasked with caring for their characters and scavenges during the night to gather food and supplies to survive. During the gameplay, the player's characters meet civilian non-player characters that are going through the same hardships, such as struggling to gather food for their family. Non-player characters are the characters within games that the player cannot control. The player has the option to ignore their request for aid, rob them or even kill other civilians to make it easier to survive, yet the player's characters will always be psychologically affected, for better or worse.

While the player will be encouraged to be morally good to survive, it is not necessary to complete the game's narrative and the player will in some cases profit from being predatory. Even if the player chooses to act in a righteous and empathetic way, the player meets other civilians that will attempt to rob and possibly kill the player's characters. The ethical gravity of *This War of Mine* rests on this equal co-existence of the NPC civilian's and the player's desperation to survive and showing the intimate face-to-face interactions between them.



Figure 2: Screenshot of the game, *Frostpunk*. Taken from Steam.com.

Based on the criteria presented earlier in the chapter, I found the game *Frostpunk* promising alternative. *Frostpunk* has a 16-year age limit and is a survival game and city builder that lets the player to be the leader of the last city on earth in the 19<sup>th</sup> century after an apocalypse that caused the world to freeze over. It was released in 2018 by *11 bit studios* and received good reviews for its ethical complexity. This is exemplified by Caley Roark’s review of *Frostpunk* upon the release of the video game.

*“Most original, though, are the ethical quandaries that Frostpunk raises, forcing you to balance the needs of individual and survival of the city without sacrificing your humanity.” (Roark, 2018).*

As the leader of a colony, the *Frostpunk* player must make choices that affect the inhabitants who survived the initial freeze, such as deciding what kind of jobs to prioritize, what buildings to build, and what laws to enact. In order to survive, as I will explore at length further on, one sometimes has to make ethically difficult choices, such as whether to allow child labor or to extend the job shifts to the adults. The player is tested on their moral qualities in the game with respect to these choices and is judged by the inhabitants, by various metrics such as those of a ‘hope-meter’ and a “discontent-meter”. *Frostpunk* explores many ethical and empathy related topics, such as starvation, oppression of civilians, work safety, refugee crises caused by environmental disasters. Later in this thesis, a discussion will develop an

assessment of how these topics could be harnessed to raise questions about ethics and empathy.

## **2.5 Games, ethics, and empathy**

Video games are programmed software which means that all interactions within them are based on calculated formulas. This makes a reactive game world limited to the level of detail the developers manage to include, while limiting errors within the software's coding. This is one of the many things developers have to account for while making video games that can be seen as a limitation when attempting to display the intricacies of ethics within our reality.

*Frostpunk*'s ethics are largely based on the morally ambiguous decisions the player make throughout the video game, while the game challenges the player to relate to others through interactions with other non-player characters, commonly abbreviated to NPC's. As these decisions are created as a set number of choices, the game-designers force the player into making decisions that have a profound impact on the lives of the other human characters in the grim future of the narrative. What makes these decisions relevant as empathy learning tools is the interplay between algorithmically based software and humans' ability to interpret, empathize and give excess meaning to inanimate things, such as the NPC inhabitants within *Frostpunk*.

Even if the player chooses to ignore the emotions and attitudes of the inhabitants, the game is designed to respond to such an ethical playstyle with resistance through questioning from the inhabitants and the negative consequences that follows. This shows that *Frostpunk* does not only recognize and reward "good" or "successful" ethical behavior, but can also allow the player to explore the "bad" or "unsuccessful" behavior and the ensuing suffering of others.

### **2.5.1 Mirroring real-world ethics**

The ethics of games do not necessarily mirror real-world ethics. This is because the environment and rules within a game do not encourage or reward commonly perceived moral behavior, but rather a behavior that contributes to achieving the game's goals regardless of real-world ethics. The ethics of play are based on what is perceived as good behavior within the game-eternal rule-bound activity, where specific actions have concrete consequences for the outcome of a game. For example, the ethically "good" or "successful" behavior within the common children's game of "tag" has a simple objective that is achieved by attempting to not get tagged, which does not concern itself with the moral questions of what is right or wrong within the real world. The developers of *Frostpunk*, however, attempts to bridge the gap



between the ethics of play and the ethics of human interactions, which lays the premise for a *persuasive* game.

Violent online video games such as *Call of Duty* (Infinity Ward, 2003) or *Counter-Strike* (Valve, 2000) encourage players to kill other opponents to win and are awarded with in-game tools to kill more efficiently. The moral and culture within such rule-bound games is based on killing as many soldiers as possible, and any player who does not kill efficiently is regarded by other players as bad for their community. While such violent video games reward players for being a mass-murderer within the video game, it does not translate the motivation for killing to the real-world. Most players regard violent video games as a way to escape reality and play with concepts that have real-world equivalents in a consequence free environment, the same way children entertain themselves by playing war.

The setting within *Call of Duty* and *Counter-Strike* is about morally good soldiers attempting to save the world from terrorists and evil world leaders' military forces, yet there are examples of real-world shootings where shooters name such games as inspiration for their murders which has sparked countless debates about the effects of violent video games within the mainstream media. Abstracting the adult themes in violent videogames leaves the core game mechanics and rules to be explored. *Counter-Strike*, as an example, has similarities to the sport dodgeball in which two teams compete in rounds to eliminate other players by hitting with a projectile or win more rounds. The underlying gameplay of these two games are proven to be entertaining by themselves and can theoretically be applied to vastly different settings and scenarios. *Splatoon* (Nintendo EAD, 2015) is an example of stripping the common war scenario from shooter video games where soldiers are replaced with cartoon humanoid octopuses that use ink and paint to eliminate other players.

The setting of a video game could be important to address real-world problems and ethics, specifically regarding narrative video games. While video games are able to simulate representations of real world systems to teach the player through in-game systems and mechanics, the setting of video games also contextualizes these elements to relate them to the real world. In *Frostpunk*, for example, contextualizing the video game in a less serious setting could theoretically negatively impact the persuasiveness that could be achieved. When *Frostpunk* deals with serious topics such as death, oppression and suffering and the persuasive goal of the game is to show the player how citizens react to oppression, it is reasonable to believe that the game needs to handle these topics in a serious setting. *Frostpunk*'s setting is fictional, however, but the ideas of death, suffering and oppression

naturally fits into the narrative. The setting can also portray real-life systems in a totally fictional world with, for example, inanimate objects with human traits, where the reader could make their own interpretations and translations to the real world. But subtracting the humanity from the characters within the game would be counterintuitive for the video game's capacity for player persuasion

### **2.5.2 The Ethics of *Frostpunk***

The capacity and readiness to feel empathy with others will have a different place and function in different ethical traditions. To discuss the ethics and potential for empathy in *Frostpunk*, it could be useful to refer to some of the dominant ethical traditions, such as utilitarianism, deontology and the ethics of the 'Other', and what distinguishes them from one another. There are two sides of ethics that are going to be explored, the ethics of the player and the ethics of the game world. The ethics of the player is about what kind of ethical behavior the different players project into the video game, while the ethics of the game world is meant to represent how the game is programmed to react to different types of ethical behavior.

Empathy can be defined as "to understand and be able to experience the emotional state of another being". In education, the learning of empathy cannot be isolated from learning in other school subjects, since it is central for the social development of students (Norwegian Directorate for Education and Training, 2020). Empathy can be regarded as a social skill that is necessary to build good relations with others and prevent practical, psychological and social problems within schools, such as bullying. The notion of ethics is based in the question of what virtuous behavior and being "good" within a society or culture is. The relationship between these terms regarding empathy specifically, is that philosophies of ethics often discuss what the correct behavior should be towards other beings. An example of this could be the "Golden Rule" that can be found across many cultures, religions, and ethical philosophies, which is often formulated "treat others the way you want to be treated".

The player might implicitly choose their approach to the ethical dilemmas in *Frostpunk* by either projecting themselves as the leader of a colony or adopting a persona with certain characteristic ethical behaviors. This ethical behavior varies based on what the player feels in the moment of playing but it could also be possible to draw similarities from their overall approach to ethical theories. *Frostpunk* is a game where the ethics and empathy of the player is shown through actions that are reflected back upon them through feedback from the non-

player characters. While the players' ethics and degree of empathy differs between players, *Frostpunk*'s persuasive goal and manifestation of ethics remains static within the game's algorithm.

Such a static manifestation of ethics is not necessarily the case for other games. For example, the video game series *Uncharted* (Naughty Dog, 2007) features a heroic adventurer akin to Indiana Jones who is generally acts and is perceived as a morally good character, yet here the main gameplay function is to shoot and kill several thousands of soldiers on their quest to discover ancient artifacts. As these goals of the main character are considered opposites of the protagonist's moral character, it causes an ethical discord that is common in video games. *Frostpunk*'s protagonist, however, is a nameless and shapeless entity that players project an identity onto, most likely their own or at least based on their own conception of what the role requires. This allows the video game to hold the player directly accountable for their actions with the limitation of predetermined number of choices within the video game. The non-player characters in *Frostpunk* are used to show both their collective ethics as a group and individual thoughts about ethics.

### **2.5.3 Utilitarianism**

The utilitarian ethical tradition, typified by 18th and 19th century thinkers such as Mills and Bentham, and more recently Peter Singer, is one of the central ethical theories in the philosophy of moral and is based on choosing the actions that lead to the most happiness or welfare possible combined (Anfinsen & Christensen, 2013, p. 112-113). Since utilitarianist ethics is not based on religious morality, but rather an instinctual drive which is apparent within all humans, it can be practiced without the belief in religion. In utilitarian thought humans are driven by the feelings of wanting and pain and the reason humans *want* is, in most cases, to increase their own happiness. Utilitarian ethics is related to consequentialist strands of ethical philosophy. It holds, broadly, that it is an act's consequences that determine if it is morally defensible, and not the action itself or the motive behind the action. People who adopt this philosophy should act the way that they make the world a better place to be for as many people possible, and one's happiness and welfare should not be of more worth than someone else's.

Utilitarianism was formulated by theorists such as Jeremy Bentham, who attempted to devise a mathematical-like ethical system in order to measure how much happiness is produced from an act. However, this way of thinking has been criticized for not taking into account

individual rights and a means to conceptualize justice (Anfinsen & Christensen, 2013, p. 113-115). Utilitarianism in practice shows that committing to acts based on a mathematical approach does not prioritize any specific person, which creates problems around a person that adopts a utilitarian view of ethics. For example, if *Person A* borrows 100 dollars from *Person B* that has to be paid back to *person B* eventually, it would be unethical to pay the money back if *Person A* has the option to use the money for something that would create more happiness.

Adopting a utilitarian approach to the gameplay of *Frostpunk* could translate to the player trying their best to please the inhabitants of the colony with minimal conflict, which would be in line with the game's orientation towards survival. In the main game mode of *Frostpunk*, the characters can be identified with groups consisting of workers, engineers, children, emigrants, immigrants, etc. These groups can have different jobs, ideals and motivation which lays the foundation of the main conflict within the colony's inhabitants.

An example of conflict that the player must deal with is the rescuing of refugees from other colonies. If the player chooses to accept all refugees, including sick ones, the "discontent-meter" will rise and the inhabitants of the colony will express their dismay through messages to the effect that they are concerned that the colony's supplies will not be able to supply everyone, regardless of whether there is enough for everyone. A morally right decision from a classic utilitarian perspective could be to accept all refugees, which could be perceived as outweighing the unhappiness of the inhabitants that oppose this decision. But since this may not be a popular choice with the inhabitants, the player could be exiled from the colony and lose the game if the "discontent-meter" reaches maximum capacity. This reaction from the inhabitants could be interpreted as the game showing that a strict utilitarian approach to be a leader is not always the best option to stay in power. Mill shows how to qualitatively differentiate different forms of enjoyment and happiness and states that "It is better to be a miserable human than a satisfied pig." (Anfinsen & Christensen, 2013, p. 115). The measuring of happiness in *Frostpunk* does not really account for such differences, since happiness can also be linked to, or be replaced by, certain forms of meaningfulness and identity as in people sacrificing their lives for something they believe in, or agreeing to live a miserable life in exchange for making someone else happy.

## 2.5.4 Deontology

Just like utilitarianism, deontology which was formulated by theorists such as Immanuel Kant, is an ethical philosophy that attempts to find a universal truth of what good and bad acts are. But deontology's moral acts are not based on achieving a human constant, such as happiness, but rather to establish general perceived norms and moral of society and logic, such as that it is morally bad to steal and kill. Autonomy is emphasized in deontology, where each individual human should be treated as a self-sufficient and reasonable person. In other words, it is the human ability for reasoning that lays the foundation for the ethics of deontology (Anfinsen & Christensen, 2013, p. 125-126).

Another difference with respect to utilitarianism is that it is not the act's consequences that determines if it is morally right or not, but rather a set of limitations created based on reasoning to judge the act itself. This set of limitations is called the categorical imperatives, which was formulated by the creator of Deontology, Immanuel Kant. One of these categorical imperatives is called the universality principle, which states that if an act is to be considered to be morally correct, everyone should be allowed to act the same. For example, if a person lies someone they are acting as if everyone should be allowed to lie, which is not considered by people to be beneficial for society, ergo it should be considered to be morally bad to lie. If an act is considered to be morally bad, according to deontology, the act should not be practiced under any circumstances.

However, regarding the example of lying, deontology is criticized for being too rigid in defining what is morally right or not. If people cannot lie under any circumstances, they cannot lie to spare someone from getting hurt or to save a life, which could cause equal or greater damage to society as a whole (Anfinsen & Christensen, 2013, p. 127-128). It could also accomplish a state of weakness which is not useful in a survival game: An example is DC's superhero Batman, who does not allow himself to kill which could be interpreted as living by the universality principle, even though his arch nemesis, Joker, kills whenever he pleases. The common literary trope of their story is that Batman always catches Joker and imprisons him, but he always manages escape from imprisonment and continues killing. This poses the ethical question if Batman should kill the Joker to save all the people Joker inevitably will kill in the future to be considered a morally good character.

Abstaining from acts that are considered morally bad in real-world ethics might cause problems to achieve the goal of games with differing moral guidelines compared to real world

ethics, such as realistic shooter games that require killing to win or achieve its goals. *Frostpunk* does not necessarily require the player to commit morally bad acts, but since there are decisions that makes the player commit morally gray acts a player that strictly follows Kantian ethics will not agree with. The video game is designed to force the player to make these choices to be able to survive and if they abstain, it will most of the playthroughs result in the player losing the game. It is possible to complete a strictly morally good playthrough without killing, lying or stealing, yet in this case, the player has to be efficient enough because it is not encouraged by the video game's systems. In a game world where sacrifices are almost inevitable to ensure survival, it is harder to commit to being morally good in a Kantian sense.

### **2.5.5 The ethics of the “Other”**

The ethics of the “Other” by Emmanuel Levinas seems especially relevant for the topics presented within *Frostpunk* and other empathy related video games. Levinas was a philosopher that questioned the increasing inclination towards self-adulation and indifference in western society. Levinas, criticizing the commonality of self-centering and attempts to show the importance of selflessness. His writing about the ethics of Others shares core ideas of selflessness with common expressions such as The Golden Rule: “treat others the way you want to be treated”. In religious scriptures, we find this type of selflessness within core religious doctrines such as the biblical phrase “thou shalt love thy neighbor as thyself”.

As Zlatan Filipovic points out, Levinas describes society's focus on one's self as a reign of egotism, thus describing how the ethics of the Other and the need for human solidarity is often overshadowed by a preoccupation with our own being (Filipovic, 2011, p. 58). The “Other” can also be defined as the manifestation of other people, groups or someone outside the self's culture, such as refugees or people with religious beliefs different than one's self. Levinas argues that the meaning of the face of an Other is immediately ethical because seeing one's face immediately humanizes people and demands to be recognized as another being. Levinas writes that the face of Others shows vulnerability, mortality and forbids us to kill (Filipovic, 2011, p. 67). In other words, being in the presence of Others makes us aware of their mortality and vulnerability, which in turn makes the us question our self-righteousness and our presumed ownership of the world (Filipovic, 2011, p. 59).

*“This gaze that supplicates and demands, that can supplicate only because it demands, deprived of everything because entitled to everything, and which one*

*recognizes in giving ... this gaze is precisely the epiphany of the face as a face. The nakedness of the face is destituteness. To recognize the Other is to recognize a hunger. To recognize the Other is to give. But it is to give to the master, to the lord, to him whom one approaches as 'You' in a dimension of height.” (Levinas, 1969, p. 75)*

This citation by Levinas is about the face of the Other and its challenging gaze, and includes the simultaneous poverty and superiority of the Other, as completely other to you. This could provide relevance to the Others of Frostpunk in the sense that the player never meets the challenging direct gaze of the inhabitants, unless the player is conscious of recognizing the humanity of the inhabitants that approach the player through in-game text. The player's visual perspective is always top-down, so they are always looking down upon the inhabitants where they cannot see their faces. The only time we get to see the faces of the inhabitants and read their expression is through paintings, which begs the question of how genuine the player can perceive the NPC's as human entities with their own feelings and ambitions. The player could theoretically add their own meaning to the inhabitants through imagining their individuality, yet each individual NPC can only be identified by the appearance of their model, their job within the colony and name they are given. This absence of individual identity among the inhabitants could also be interpreted as being a feature of the game. A world leader or dictator can meet the challenging gaze of their population, but the idea that they cannot easily *see* the intricacies of their true identity could be the developers' intentional design within the game. In this case, the persuasive nature of the absence of identity could be a positive aspect for the persuasive goal of the game, which could be interpreted as showing the player how civilians are dehumanized and oppressed by their leader.

Levinas describes reducing Others to knowable categories such as race, gender or other fixed identity, which they inevitably exceed as the term, totalization. As Others are bound to exceed such limiting categories, any attempt at totalization is inevitably reductive and unethical because it strips them from what makes them unique and complex in character (Filibovic, 2011, p. 64-65). Totalization often occurs when dictators or world leaders divide civilians into groups or entities, which can be seen in *Frostpunk* through its division of groups, such as the “workers”, “engineers”, “adults”, “children” etc. The player is not able to meet the inhabitants individually and does not experience the hardships of living through a frozen environmental apocalypse. This disconnect essentially functions to physically separate the leader of the colony from its inhabitants and point out that they are not equally at risk of suffering. The

only real risk of the player's character within the game is to be banished from the colony, which is depicted if the player loses the game.

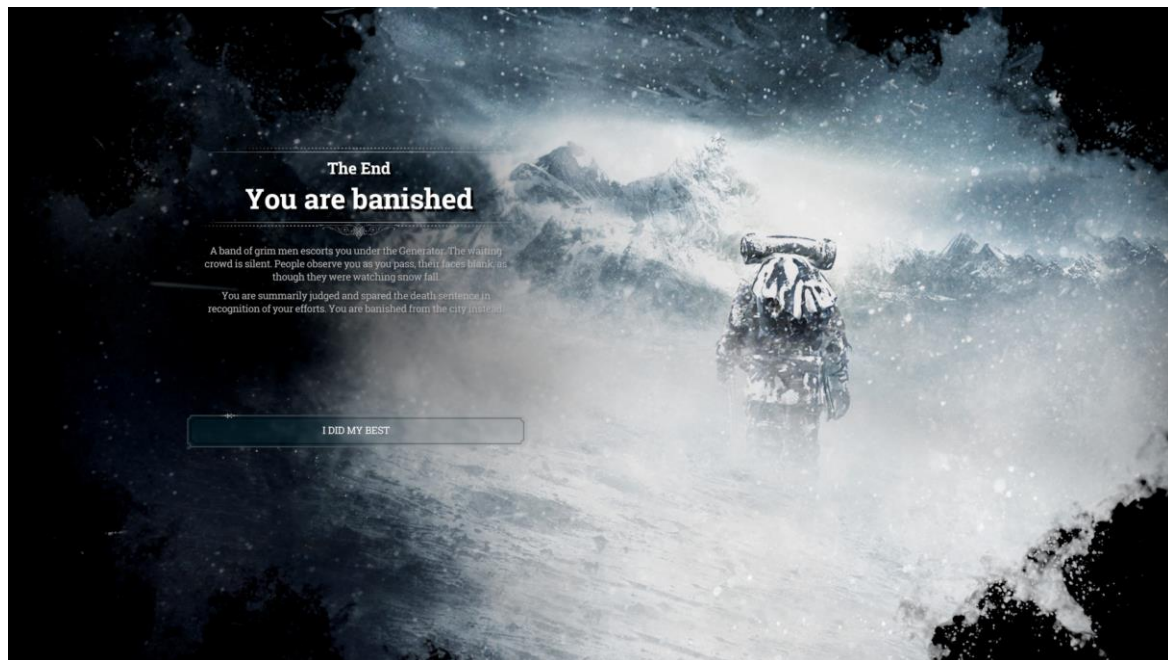


Figure 3: Screenshot of a "Game Over" screen where the player is banished from their colony within Frostpunk

This divide between the player's character and the NPC's of the game could be interpreted in different ways. The player's perception and immersion vary between players, while some might acknowledge the divide and be less immersed into the narrative and others might give additional meaning to their character and perceive themselves as part of the population. Regardless of their characters perceived meaning within the narrative of *Frostpunk*, the feeling of being a separate entity from the NPC's could lead to an inner reflection about privilege within society. In the real world, we can see similarities to world leaders that are cared for financially and protected for the rest of their lives by the government. A common critique towards politicians or world leaders that have high income or an advantageous position in society is that they might lose the perspective of the marginalized population within societies while they decide the majority of how they will be treated. By playing *Frostpunk*, the players will experience what it is like to not be able to consider the individual and totalize the population while making choices that affects each individual in different ways.

The player's character's purpose within *Frostpunk* is to care for everyone within the colony, while themselves are not exposed to any risk other than getting thrown out of the colony or die with it. For example, the player does not need to concern themselves with their character's



basic needs, such as eating, sleeping or other aspects of *wanting*, even though they are technically playing as a human within the game. The character they play lives to serve their colony and cannot be greedy for their own sake, unlike real world-leaders. This makes it easier to adopt a utilitarian-like approach to the game, because their character's only possible outcome is either to survive happily or die from freezing. The inhabitants, on the other hand, have to experience living and working in the cold if the player fails to keep them warm or starve because there is not enough food for everyone. This asymmetry in the treatment of the leader and the inhabitants is not brought up within the narrative of *Frostpunk* which makes the leader-figure appear unrealistic, yet it serves to give the player a role where it is easier to be selfless in their actions. The notion of wanting to stay in power as a leader is a selfish want, and it could be argued that this is portrayed effectively within the video game. The player can bend their morality to extreme lengths to ensure that their colony will not revolt and banish the player from the colony because of the player's failings to care for them.

The relationship between the player and the player's character could be thematized and discussed in an educational setting. As the players are effectively playing as dictators that could all too easily dehumanize their population, it serves to illustrate how distant world leaders and politicians could be to how lower-class citizens live. This is directly relatable to the interdisciplinary subject of *Democracy and leadership* and the principle of *Social learning and development*.

### **3 Frostpunk Analysis**

#### **3.1 Introduction and methodology**

The aim of this chapter is to analyze the video game, *Frostpunk*, and explore the potential of persuading players through game mechanics and narrative. I will consider it as a narrative text and with reference to the notion of 'persuasive games' and procedural rhetoric to look for potential for empathy learning and exploration of ethical issues through the video game. The analysis will also be used to further explore video games in general for pedagogical use.

Narratives can not only convey information but bring information to life and model the world (Cohen, Manion & Morrison, 2018, p. 664). As video game narratives can be vastly different from each other depending on the game, genre, player and game-systems. Video game narratives also does not fit the linear progression of traditional narrative texts, which makes it so that there are not many analytical frameworks that could fit analyzing a video game such as *Frostpunk* to look for empathy learning potential and exploration of ethical issues. I will use a

narratological approach to analysis of video games. The construction of the narratological analysis is based on examining the narrative's chronology, characters, perspectives, main events of the narrative, the main possible decisions of the player character, the possible story arcs the video game provides and the setting of the video game.

### **3.2 Summary of *Frostpunk*'s Game Narrative**

The main goal of *Frostpunk* is surviving an apocalypse that made the world freeze over while building the first society as an appointed ruler. To manage this, the player must utilize a heat-generator which is fueled by coal to ensure the inhabitants stay warm. Caring for your inhabitants is the main goal of the game and as the game progresses, their needs increase.

The inhabitants' needs align with Maslow's hierarchy of needs. When starting a new game of *Frostpunk*, physical needs are the first needs that need to be tended to, mainly food, shelter, and sleep. Building houses, managing workdays, employing hunters are measures that help meet their needs, but there are variables that can impact how successful these measures are. As the game progresses and requirements are met, safety needs must be tended to because the standards of living increases. New challenges arise, such as the inevitable first death in the colony, which means that inhabitants demand better healthcare, work safety and a way to properly deal with the deceased.

### **3.3 Empathy through immersion**

The setting of *Frostpunk* is apocalyptic and extreme compared to what humans experience in the real world, yet the setting dilutes moral and ethical dilemmas without the interference of complex elements, like global politics. While the distinction between right and wrong is portrayed in concrete game systems and simplified dilemmas in *Frostpunk*, it serves to not overwhelm the player and make the decisions relatable to the real-world. For example, the real-life concept of hope is complex, individual and cannot be measured by conventional measurements, but the game portrays this as a game mechanic with points on a scale which can be maxed out or fully depleted. The consequences of having high and low points on said scale is also consistent for each playthrough, where having low points for a specified period of in-game time equates to being overthrown and losing the game. *Frostpunk*'s game mechanics is not explained in great detail within the game, but this serves to keep new players guessing what happens when the "hope meter" depletes. Without knowledge of the inner workings of the game's mechanics the player can unintentionally give game mechanics like the "hope meter" a more complex meaning, while in reality it is deceptively simple.

*Frostpunk* shows other concepts, such as dictatorship and a power struggle between the civilians and the leader, which allows the players to relate their experience within the game to the real world.

As the leader of the colony, the player possesses dictatorship -like control over the inhabitants and is trusted with that power to lead the colony's inhabitants into an apocalyptic winter. This design choice gives the player agency and freedom to choose their own approach to the game. The player can freely choose to be cruel to the inhabitants rather than being helpful. Giving freedom and agency to the player is claimed by De la Hera & Joost Raessens (2021, p. 60) to be an essential part to secure persuasion through video games. The freedom and player agency also contribute to immersing the player in their own narrative.

The setting, audio and visuals of video games also serve to immerse the player (De la Hera et al., 2021, p.61). The audio within video games is often interactive and changes depending on what happens within the game. In *Frostpunk* this can be seen within its soundtrack, ambient audio and responsive audio. For example, when *the great storm* reaches the colony, the ambient winds intensify and the somber orchestral soundtrack shifts into a dramatic score that mirrors the intensity of the winds and drop in temperature. The audio is programmed to respond to the player's actions within the game, such as when the player constructs buildings there are sounds of rubble being placed on the ground, and crowd chatter when inhabitants gather to protest. During gameplay there is an announcer that shouts a message to the inhabitants to mark when certain things happen, such as when a new law is adopted, changes in temperature, and when the work shift starts and ends. The announcer's lines and demeanor changes depending on the laws the player adopts, but most noticeably when the player adopts either the "faith" or "order" approach. For example, when the announcer announces that the work shift starts, the neutral response is "*Move! Time to get to work.*", but when the player adopts the "order" approach it changes to "*Our leader calls us to work. Slackers will be severely punished*" or "*Work is virtue. Praise our great leader*". These responses in audio show how the narrative is altered to value the leader more than the workers through the player's actions. This could impact the players perceptions of their actions.

The visuals and setting of *Frostpunk* is largely depicted with realistic imagery and 19<sup>th</sup> century aesthetics, with the exceptions of retro-futuristic elements. The technology within the game is crude and mechanistic which serves to illustrate the living conditions of the inhabitants similarly to civilian life under the industrial revolution. Civilians are depicted wearing tattered worn clothing who are struggling to keep warmth and the world is generally

depicted in gray colors. There are also no instances of humor throughout the game. These elements within the visual storytelling invoke feelings related to dystopia, survival and steampunk which makes the world seem grim and hopeless. As these genres are reflected through the entirety of the game's elements, it might implicitly affect the player's choices to reflect the serious tone of *Frostpunk*.

### 3.4 How the game world reacts

In *Frostpunk*, the player functions as an actor in a computer-generated play where the computer holds the player accountable and generates consequences for their actions. Consequences vary from how the physical world and the non-player characters react to the player's decisions, for example if the player spend all the coal too quickly the physical world will react by shutting down the heat-generator which is essential for survival. The NPC's consists of the inhabitants of the players colony and the people outside the colony. These entities serve as the supporters and reactionaries of the policies and actions of the leader. The NPC's ultimately decide if the player is fit to be their leader and are able to permanently overthrow the players regime. The first impact the NPC's has on the narrative is the "hope" mechanic and the "discontent" mechanic, which is measured in their respective meters in the game.



Figure 4: Screenshot of the game *Frostpunk*. Taken from *Steam.com*.

The player's choices and performance in the game affect how discontent or hopeful the inhabitants are. The level of complexity to this game mechanics varies throughout the videogame. Sometimes the player is shown how many "hope" and "discontent" points is added/subtracted for specific actions, for example, choosing what building to build. While in other situations it is uncertain to the player how their actions are going to be received by the inhabitants, for example, when inhabitants are affected by the cold temperatures. As these meters rise, the inhabitants will react through messages and actions to the leader where they express their thoughts about their leadership.

Regardless of the player's performance, the problems the player must solve has no correct solution, but instead needs to choose between sacrifices. As an example, if the colony depletes its food rations and there is an urgent need of more food, the player can sign in a law increase the amount of food; either to demand the production of soup or demand the production of meals with added sawdust. Both choices will create a larger quantity of food but may also compromise quality which adds "discontent"-points to the meter. If the player chooses to make sawdust meals there is produced more food than the soup solution, but sawdust meals have a chance of poisoning inhabitants. In this case, an ethical dilemma occurs. Is it more ethical to adapt the "soup"-law and risk not having enough food for the inhabitants, or adapting the "food additives"-law which will produce more food while risking the lives of inhabitants?

If the player choses to adapt either one of these laws, the player unlocks the ability to adapt the "alternative food source"-law, which allows cookhouses to use corpses to produce large quantity of meals. The consequences of adapting and using this law to produce food are immense. When adapting laws in *Frostpunk* they are announced to all your inhabitants, but only the player knows when they are using it. After the initial adaption of the "alternative food source"-law, hope falls drastically and there is a 50% chance of inhabitants finding out they are eating human meat, which will raise discontent and lower hope dramatically.

Inhabitants will cause a series of confrontations if they are not content with the players actions. For example, the lack of healthcare is one of the problems that can confront the player, starting with the problem that more sickbeds are needed. The player can choose to promise to open a new medical structure in four days, promise to treat the sick in three days, or the player choose to not address the problem right away. Not addressing the problem will increase discontent, which leads to further protest and eventually riots.

Later in the game's narrative, a movement in the colony is started by some inhabitants that want to leave and find another settlement in London. This movement is called "The Londoners" and they will attempt to gather an increasing number of inhabitants to join their cause because of your failings as a leader. To counteract this, the player can either do a better job as a leader, which will drive down how discontent the inhabitants are and decrease the number of inhabitants that want to leave. Another possibility is to violently suppress those who want to leave the colony, which is an easier option to force the inhabitants to stay, but will result in the injury and deaths of some inhabitants.

### 3.4.1 Faith and order path

If the hope meter depletes, the inhabitants of the colony will confront the player and ask to be guided through tough times. Here, the player must choose between two paths: "faith and spiritual strength" or "order and discipline".

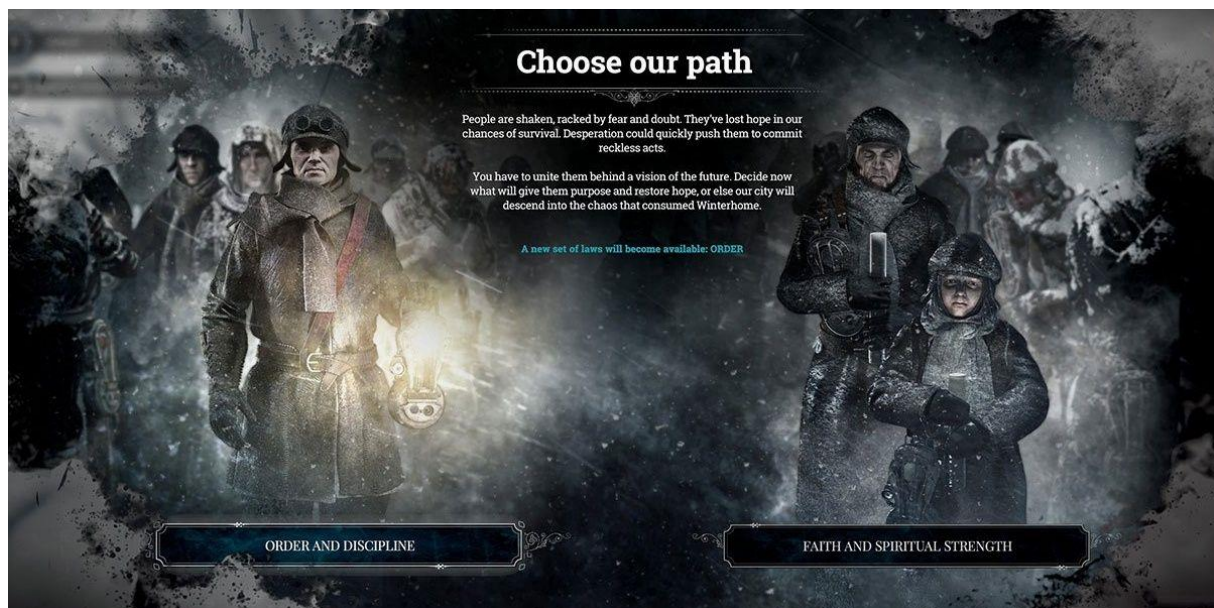


Figure 5: Screenshot of the choice between the "order" and "faith" path within Frostpunk.

The inhabitants are looking for hope where ever they can find it, and the player is perceived by many inhabitants to be the solution to their uncertainty. When choosing a path, a new set of laws can be unlocked to keep inhabitants under control. While these laws are useful to keep discontent low and hope high, there are some laws that challenge the morality and empathy of the player. In the order path, the colony employs inhabitants as guards to ensure that wrongdoers are punished for their opposition to the player. The player can employ secret informers, build propaganda centers and prisons, and torture the prisoners to force compliance. In the faith path, a similar control is created through religion by faith keepers to

break up protests, public penance of evildoers and the players' promotion to "Protector of the Truth". The last laws in both paths are "new faith" and "new order" which brands all who opposes the player as enemies which always keeps the hope meter at max value permanently. This last law could also be argued to have the most impact on how the inhabitants view the player as a leader. In these two scenarios, some of the inhabitants will express gratitude that they are governed by an all-powerful wise leader that will save them from the hardships of the apocalypse, while a great deal of inhabitants will violently oppose the player's oppressive regime by, for example, sabotaging the generator, stealing food or riot in the streets. In these events, the player is able to viciously strike down on wrongdoers without consequences for the other inhabitant's hope for surviving.

### **3.4.2 The great storm and Game over**

Later in the narrative of *Frostpunk*, *The Great Storm* will arrive to the players' colony. Temperatures start dropping gradually, down to -130 degrees Celsius and makes it impossible to gather food and the colony must live off stockpiled rations. If the player has not experienced the game before, *The Great Storm* creates an urgency to prepare for the worst since it is uncertain how it will affect the colony. *The Great Storm* is the final event before the game ends and the credits sequence shows the outcome of the players' actions with a montage of the colony developing. The player is notified days in advance of a storm incoming by the scientists within the colony told through in-game text messages. Here, the player is given a quest to stockpile a set number of rations, recall all scouting parties and rescue as many refugees outside the colony as possible.

*"A howling gale bursts upon the city and the Generator creaks and groans under the weight of the wind. Pale faces turn towards rattling windows; trembling lips utter words of prayer.*

*The cold will be brutal. Hunting is impossible. The soil in the Hothouses will freeze. We'll have to make do with the food we've stockpiled."* (11 bit studios, 2018)

The last weeks of in-game time tests the players infrastructure and ability to conserve supplies for a severe arctic winter. From this point onward, the player is tasked to sustain and compress the colony, rather than trying to improve and expand. As the storm hits it becomes increasingly hard to keep workplaces in workable temperatures, but in most cases the player must send inhabitants to work in deadly freezing coal gathering stations to be able to keep the

main generator running. This effectively means that some, or a large part of the inhabitants, will die, yet if the player manages to keep the “discontent meter” low and the “hope meter” high, inhabitants will not protest and expresses that they trust that these sacrifices are necessary to keep the colony alive. *The Great Storm* is the most extreme part of *Frostpunk* where the hardest decisions have to be made.

There are scripted events that will happen over this duration that can be experienced as tough dilemmas, for example that the coal mines are on the verge of collapse because of the freezing temperatures and the player has to choose between three two options what to do about it. The first option is to send volunteers to replace the supports which risks killing 10 inhabitants, while the second option is to abandon the lower levels of the coal mines which effectively loses 80% of the coal harvesting in all coal mines. If the player has a low stockpile of coal, losing 80% of the coal mines’ potential could mean that the loss could possibly be greater than 10 inhabitants, or that the entire colony will not survive.

This dilemma is similar to the thought experiments of the *Trolley Problem*, apart from the ambiguity of how many will die because of the player’s decision. The *Trolley Problem* can be presented in many ways, but the most frequent version of the scenario is that there is an incoming train that will run over 5 people if nothing is done. In this scenario, you are the bystander who can pull a switch that will change the course of the train and on the other course there is one person. Saving the 5 people could seem like the optimal solution, but the dilemma can be hard because if the bystander pulls the lever that switches the course, the bystander is directly responsible for the death of the one person. In *Frostpunk*’s adaptation of the *Trolley Problem*, the player could be directly responsible for a random amount of the 10 inhabitants who *might* die or risking to not be able to keep people from freezing to death. Here, the way the inhabitants could die can also be ethically problematized, where freezing to death slowly could be arguably worse than being crushed in a mine. The player will not be able to see how the inhabitants die visually, but if the player is conscious of this it could affect their decision.

The playthrough of *Frostpunk* can end for several reasons before *The Great Storm* which is largely based on the player’s efficiency and skill when playing. For example, the game’s loss conditions can be that inhabitants overthrow and banishes the player, the heat generator explodes from overheating, or that all adult workers die. Perhaps the worst possible outcome for the player is being publicly executed by the inhabitants, which could happen if the player



has chosen one of the “order” or “faith” paths within the game, has constructed the execution platform, or has maxed out the discontent meter is maxed out for an extended period of time. This last ending is different from the others in the sense that if the player sacrifices their humanity by adapting laws like the execution platform and they still lose the favor of their inhabitants, the player is perceived by their inhabitants as cruel with no ulterior motive to save them.

### **3.5 Persuasive goal vs. game goal**

Both paths of “order” and “faith” mimic real-world autocracies and theocracies, where absolute power belongs to a single person. The order path has similarities to police states not unlike the Soviet Union, while the faith has similarities to, for example, the Islamic theocracy of Iran after the revolution in 1979. As several of these laws portray real world equivalents, we can see the game authors’ intents of persuading and affecting the players’ political views, empathy, and morality. As established before, the player is given a substantial degree of player-agency during gameplay and the inhabitants serve as the main way of providing feedback to the players’ actions. This means that the player’s input can serve to reflect their morality, empathy, and political views to varying degrees and the inhabitants’ responses reflect the same aspects from the authors of *Frostpunk*.

*Frostpunk* explores many ethical themes and topics that can be interpreted as parts of persuasive goals of the game, such as starvation, work safety, global warming, and immigration. While these themes are explored thoroughly throughout *Frostpunk*, an interpretation of a main persuasive goal could be that this video game is designed to help players understand how civilians are often oppressed and dehumanized by dictators and world leaders and to help players understand how they feel, live and deal with it. By showing the player the perspective of a leader instead of the civilians, the player is exposed to and held accountable for their mistakes or wrongdoings by the same people they are trying to protect. However, there are several topics that could be interpreted as persuasive goals, such as how the player can impact the earth’s climate, how the player can maintain their humanity in times of distress, or how the player can consider the ethics of work safety.

The goal of the game from the player’s perspective is to survive themselves during the freezing apocalypse while caring for the characters within the colony to not be thrown out of the colony. Everything else can be considered optional, such as being good willed towards the inhabitants, saving the lives of inhabitants or taking in refugees into the colony. In this sense,

the game does not insist that there is a set “correct” way to play the game, which is reflected in the game’s achievement-objectives that the player can complete. Achievement-objectives are, in a sense, goals or trophies that can be completed when the player fulfils a set requisite provided by the developers. For example, the player gets a trophy if the player manages to complete a playthrough without building a single house for their inhabitants, leaving them out in the cold to freeze.

While there are not many of these “ethically bad” achievements, the developers encourage exploring the extreme ways the game can be played, but the player is not explicitly told that this is a viable way to play the game. There are mostly achievements that encourage “ethically good” playstyles, such as finishing a playthrough without anyone dying. Despite the game’s “open to interpretation” ways of playing, the rhetoric of the game implicitly affirms that the player should be invested in the lives of their inhabitants and should treat them well. In other words, the player is rewarded by the in-game systems when acting ethically or righteously towards the NPC’s of the game, while being punished if they are not.

This effectively means that in “ethically sound” playthroughs, the player might perceive the game goal to be to survive *with* their inhabitants and if the game’s persuasive goal is interpreted to be that the game tries to help the player understand how civilians react being oppressed or dehumanized by leaders, the goals overlap with each other, something which De la Hera and Raessens claim could shape new attitudes (2021, p.63). It is then reasonable to believe that *Frostpunk* is suited to shape new attitudes rather than reinforce attitudes.

However, if the player genuinely does not empathize with others and wants to be cruel towards the inhabitants their perceived game goal could be that they only want themselves to survive and stay in power. Yet, the persuasive goal of the game remains static. Since being cruel and focused on their own survival is completely different from the interpreted persuasive goal, it could possibly mean that *Frostpunk* could be suited for changing attitudes as well.

This seems to be interesting to test and research in a practical educational setting to see if players learn to be more empathetic, change their opinion or shape new attitudes. However, measuring the effectiveness of empathy learning by way of neuroscience seems to be difficult because of our limited understanding of the brain and how empathy relates to observable changes in the brain. This is what the study of *Crystals of Kaydor* concluded with, where their observed changes in the brain could not be used to conclude how efficient the game was when teaching empathy (Kjørstad, 2018). Perhaps a better approach to this could then possibly be

measured in different forms of student testing at school, course evaluations and didactic research, where interview-based research or action research is most typically used.

## 4 Findings

When the player is given this amount of control over people, albeit fictional characters, it poses a question of how they will react. How far will the player bend their morality and empathy to ensure the colony survives? All laws in *Frostpunk* are largely optional to enforce and it is possible to ignore the laws that could be considered unjust, cruel, and morally dubious. The player must reflect if it is better to risk losing the game, rather than win at all costs. In this part, *Frostpunk*'s playability will be explored through my own playthroughs of the video game. This part of the thesis will attempt to show the level of player-agency affects how different playthroughs can be.

### 4.1 Approaches to *Frostpunk*

Through playing *Frostpunk* several times, it became apparent that it is possible to get to the end of the video game by way of many different approaches and strategies. To study the different approaches to playing *Frostpunk*, I played the game three times while adopting three different play styles. In these playthroughs, one of the inhabitants was named after the player to follow the progression of a single inhabitant throughout the sessions. Throughout the playthroughs, the difficulty was set to "normal".

In my first playthrough, the choices were based on moral instinct and to be as authentic a new player. This made it increasingly more difficult to sustain the gathering of resources, and the inhabitants would later overthrow my leadership. The named inhabitant died two weeks of in-game time into the playthrough. This effectively means that game was lost, but since there was a possibility to go back to a previous save, I could make different choices and be more efficient to prevent being exiled from the colony. Moving forward, I chose to make sacrifices and adapt laws such as "child labor" to allow all the children to be used in simple jobs. The inhabitants respond to this by giving feedback through text messages that appear on screen, where some inhabitants are in favor of the decision, and some condemn it.

The inhabitants showed that they understand that sacrifices sometimes must be made, but as the discontent meter rose, they became increasingly resistant to the decisions made. When the great storm arrived and temperatures dropped, desperate measures seemed to be the only option to deal with the then unknown consequences that followed. I chose the "faith" path to

keep order, but the feeling of oppressing and dehumanizing my own inhabitants was clearly felt. During the great storm, a large part of the colony died and I desperately tried to keep houses warm and forced most inhabitants to work overtime in freezing coal mines to keep the generator running. As the storm passed, the game was over.

In the second playthrough, I tried being as efficient as possible while not being influenced by moral consideration and ignoring the inhabitants' requests. The goal was to ensure the survival of the colony at all costs while trying to stay in power for as long as possible. As I had more experience with *Frostpunk* it was easier to manage the colony, which resulted in increased efficiency. This allowed me to make greedy and immoral choices while trying to manage not to be overthrown by the inhabitants. The inhabitants reacted with an increase of the discontent meter and riots in the colony. Even though the harshest of the laws were adapted, the playthrough was successful, but seemed to be possible only because of my ability to be efficient in gameplay.

The third playthrough, I attempted to complete the game by trying to adhere to the inhabitants demands and suggestions as much as possible, while attempting to save all inhabitants allowing all immigrants that needed refuge. I also could not adapt any laws considered to be immoral. During this playthrough, it became apparent that it is not possible to please everyone in the colony. Some neutral choices and laws meet resistance even if it is being praised by other inhabitants. An example of this is the choice between "sustain life", which allows gravely ill inhabitants to be cared for in care houses, and "radical treatment", which allows invasive surgery to cure the gravely ill while risking amputations. This could be considered a morally gray choice and has no "right" answer.

Because all the playthroughs were played on the normal difficulty, one might assume that this could be a source of error. As I was the only player during these playthroughs, my experience with *Frostpunk* allowed me to be increasingly efficient which made it more likely to succeed in adapting the playstyles in the second and third playthrough. An unexperienced player playing on "normal" difficulty would meet these playstyles with more resistance from the video game and risk losing. The intended balance of the difficulty could be shown here from the side of the developer to create a persuasive experience. In other words, if the player meets little to no resistance because of their ability to play *Frostpunk* correctly and efficiently, the intended game design could fail to persuade. If the player would increase the difficulty for each playthrough, the results could be more align of the gameplay experience of a new player.

I experienced the persuasiveness of playing the game to be quite impactful, especially during the first playthrough. This could be because of the uncertainty of how your actions will have consequences later in the game's narrative and how the player's actions might be affected by this. In the second and third playthrough there was many reoccurring events that I recognized from the first playthrough of the game, which made me aware of exactly how the game systematically decides what the outcome of a decision is. Before playing I already had knowledge of how civilians are oppressed and how they react to being governed by this, through own research and by playing *This War of Mine*, which features a persuasive goal similar to *Frostpunk*. However, after playing the game myself, it seems reasonable to believe that a student without much knowledge about this topic could shape new attitudes by playing *Frostpunk*.

The video game's presentation of civilians' suffering, death and poverty is perceived as a genuine representation the real-life counterpart. However, it could be argued that the commercial entertaining part of *Frostpunk* also plays a part in how persuasive the game could be. During all my playthroughs I experienced that the video game is inherently fun to play while forgetting the "seriousness" of my actions, but I became aware of this and discussed it in detail in this chapter. If students experience the same disregard for the NPC's within the video game, it could possibly also be discussed in an educational setting and frame it as how it could be easy for

## **5 Suggestions for using *Frostpunk* in an educational setting**

*Frostpunk* is inherently a commercial game not a game made specifically for educational purposes. Due to the amount of the content within the game and length of a normal playthrough, it is harder to adapt to fit education, compared to other video games made for educational purposes. To adapt to this, the teacher can limit the length of play-sessions to create focus on elements that are relevant for the subjects that are being taught. While the difficulty of adapting *Frostpunk* to classrooms is present, the possibilities of such a commercial game are perhaps greater to fit several different teaching styles, methods, and subjects. This is specifically apparent with the subjects of English, Social science and other interdisciplinary subjects, such as *Democracy and citizenship* and *Sustainable Development* (Norwegian Directorate for Education and Training, 2020).

Since teaching with video games is still an alternative teaching method and not very widespread within education, it is appealing to many students to stray away from their regular traditional education. Video games offer a new world and narrative setting to be explored in an entertaining and playful way. As such untraditional and new methods often increase motivation among students which could lead them to perform better, it is important to recognize the potential fallacy that might occur if one is measuring the efficiency of using video games in education. Even though such motivation might be temporary for a new teaching method, it could be positive for students' learning potential to do something out of the ordinary. Bringing video games into teaching bridges the gap between students' school and home life, or in other words, modernizing education to fit the interests and lives of the current generation of students.

This thesis has a focus on examining the learning of interdisciplinary subjects, and empathy and ethics learning regarding video games, but video games can also be used as content to supplement regular language teaching. Since *Frostpunk* uses the English language as its standard language setting, the game can also be used to teach English as a Foreign Language (EFL). Using literary works to supplement language learning is common within education, and it is also used to contextualize language learning in a practical environment. For example, by watching an English movie in EFL education allows students to use their language to decipher what is being said, which contextualizes their use of the English language to a practical situation they might encounter in their time outside of educational practice. English video games would provide such a context for the use of language, but there are aspects with video games that can contextualize language learning further. For example, to “win” in *Frostpunk* the player needs to use the English language to decipher the text and speech within the game visually and audibly, while also understanding the text that describes their possible actions and their consequences. This challenges the player's vocabulary, their understanding of verbal speech, and textual understanding.

Beyond the variables of language learning that can be found within *Frostpunk*, teachers can use supplementary tasks and methods to incorporate language learning elements such as verbal communication practice, pronunciation practice and practicing to produce written work. This type of language practice could be implemented with activities such as having an oral discussion in class in English, talking with a study partner about the game in English and writing a “game-diary”.

## 5.1 Practical challenges

To implement *Frostpunk* and video games in general into an educational setting brings practical challenges to be overcome. As technology is becoming increasingly more efficient, it becomes more present in classrooms and allows video games to be a viable option to use in education.

One of the challenges to overcome is the cost of the purchasing licenses for video games for educational use. Video games are software that, in most cases, does not allow for several users to use a single license. *Frostpunk* specifically can be purchased as physical copies on compact discs or digital licenses that allow for the game to be downloaded through digital distribution platforms, such as *Steam.com* and *GOG.com*. This means that purchasing video game licenses for a class of, for example, 30 students could be too expensive for schools. Another challenge of bringing video games into an educational setting are using digital distribution platforms to provide licenses to students. There are solutions to this problem, notably through *STEAMWORKS' Steam PC* program, which is advertised to be available in Norway and supports single licenses to be used by several users. While the program seems promising for making video games more viable to use in education, it requires the permission and planning from school organizations and/or the overarching education systems within a country. One notable exception to this standard is the *Minecraft: Education Edition* (Mojang Studios, 2016) which operates independent of major digital distributors and provides licenses for schools with a yearly subscription. In some cases, developers are willing to donate free video game licenses to teachers to aid in bringing video games into educational practice.

Equipment such as computers and tablets vary between schools and might not be able to support video games, such as *Frostpunk*, which could impact how the teacher needs to adapt in order to use video games in an educational setting. It is worth mentioning that *Gratisprinsippet*, the Norwegian principle of that all students should be able to attend school regardless of economical differences, impacts what possibilities there are to adapt video games to education. For example, in the primary education, access to internet in students' home is not covered in *Gratisprinsippet* which could affect what kinds of homework the teacher can give the students. Playing a game on a distribution platform, such as *Steam* requires internet for logging into accounts and downloading video games. *Gratisprinsippet* does cover the purchase of teaching materials, such as PC's or tablet computers, but there is no consistency between what kind of computer is purchased between schools (Norwegian Directorate for Education and Training, 2020). This means that students might not have

access to a computer that is able to function with a video game such as *Frostpunk*. This could be worked around by playing a video game on projector with the entirety of the class, but this could possibly limit the persuasiveness of the video game.

One of the main challenges regarding using video games in education is the consumption of time, put up against the limited time available in school. A notable example of resources to aid teachers in planning teaching schemes with video games is *Spillpedagogene.no*, but the video games that are explored and researched there are limited. Even if the teacher prepares a teaching scheme good to mitigate time-loss, there are many practical variables that video games bring that takes time away from effective teaching. Common practical variables could be, for example, technical problems that occur in computer-based teaching, hardware/software problems or students forgetting login-information. Another problem that could consume time is the variables within each specific video game. Students must learn how to play the game in question and that could be difficult and more time consuming for some individual students. *Frostpunk* specifically is a game that can be lost if the player is not efficient enough in their play and could be perceived as complex in its game-progression for people unexperienced with video games. However, difficulty in video games can often be customized and adapted outside of video games.

## **5.2 The difficulty of *Frostpunk***

The level of difficulty experienced in *Frostpunk* can be described by the level of understandability, complexity of game mechanics and gameplay, the length of the game, and adaptability of difficulty.

When starting a new campaign, the player gets the option of setting the level of difficulty, which cannot be altered during the game. There are four difficulties to choose (easy, normal, hard, expert) which affects the needs of the inhabitants, economy, weather changes and the amount of points added and subtracted to the “hope/discontent-meter”. There is also an option to create a custom scenario where the player can tweak the difficulty of these elements to extremes or to be removed from the game completely. When playing the player has the ability to pause, set normal time progression and faster speed progression to manage the colony in their own tempo. It is also possible to save and load save files so the player can reload if the need arises.





Figure 6: Screenshot of the user interface within Frostpunk. Taken from Steam.com.

To understand *Frostpunk*'s game systems, interface and gameplay was experienced by the researcher to be complex, but manageable after some time playing the video game. The way the player interacts with the various game systems through buttons with icons that are depicted mostly with items and illustrations of known concepts, rather than language. In figure 3, the main user interface of *Frostpunk* is displayed. As an example, the four buttons on the bottom middle of the screen are called, from left to right, "technology tree", "construction", "book of laws" and "economy". The "technology tree" button is depicted with a diagram of something akin to a family tree, while the "construction" button is depicted with a hammer which is often associated with constructing buildings. The association between a hammer and the concept of construction could be easy for the player to make, but since there is no real-world equivalent to a "research skilltree" it could be a harder concept to grasp without further inquiry into the game system. This example shows that the developers attempt to simplify the visual user interface, yet some of the concepts in *Frostpunk* are specific to this video game or genre and needs further explanation through in-game descriptions and tutorials. In an educational setting, the time required to understand concepts and game mechanics could cause an interference with the goal of educating and persuading students.

*Frostpunk*'s language settings defaults to English, but can be changed to other languages, but unfortunately not Norwegian, which can make it difficult for students. Norwegian students are taught English as a second language from first grade, which means that most students

have the language competence to read basic English in secondary school. The students' level of language competence always varies and there are situations where some students have little to no competence in English.

In an educational setting it seems to be possible to use *Frostpunk* despite its comparative difficulty with some additional preparation from the teacher. Playing on easy difficulty makes the game manageable for most players with an understanding of basic systems and game mechanics within video games, but it could affect the severity of consequences of the players actions. The persuasiveness of the game could be impacted if the player chooses to play on a difficulty that does not punish the player with the right number of consequences. The NPC's of *Frostpunk* will, regardless of difficulty, express how they feel about the player's actions, where it could be argued that playing on an easier difficulty could achieve some degree of persuasion.

### **5.3 Practical application of *Frostpunk* in an educational setting**

*Frostpunk* is a game that involves several themes and topics that show commonality with subjects such as English and Social science. It also explores interdisciplinary subjects present in the curriculum for 2020, such as *Democracy and citizenship* and *Sustainable development* (Norwegian Directorate for Education and Training, 2020). In practice, *Frostpunk* is suited to be used to teach social science through a variety of subjects, such as forms of government, global warming, or government oppression. In the English subject, the video game can be used to supplement language learning and communication practice, but there is also a possibility of making *Frostpunk* the central topic with a focus on ethics, empathy and literature analysis. In this chapter, I will provide an example of how teachers could form a teaching scheme to teach about ethics, empathy, and literature analysis in *Frostpunk*.

There are three competence aims in the curriculum for the English subject (Norwegian Directorate for Education and Training, 2020) that seem the most relevant to form a teaching scheme with *Frostpunk* with a focus on ethics, empathy, and literature analysis.

*“use different digital resources and other aids in language learning, text creation and interaction”*

*“read, interpret and reflect on English-language fiction, including young people's literature”*

“read, discuss and present content from various types of texts, including self-chosen texts” (Norwegian Directorate for Education and Training, 2020)

The methods of learning in these competence aims are mainly focused on reading texts, which can be applied to *reading* video games. The students are supposed to produce work through *interpreting, reflecting, discussing* and *presenting*, which could be attainable in a teaching scheme that spans several teaching sessions.

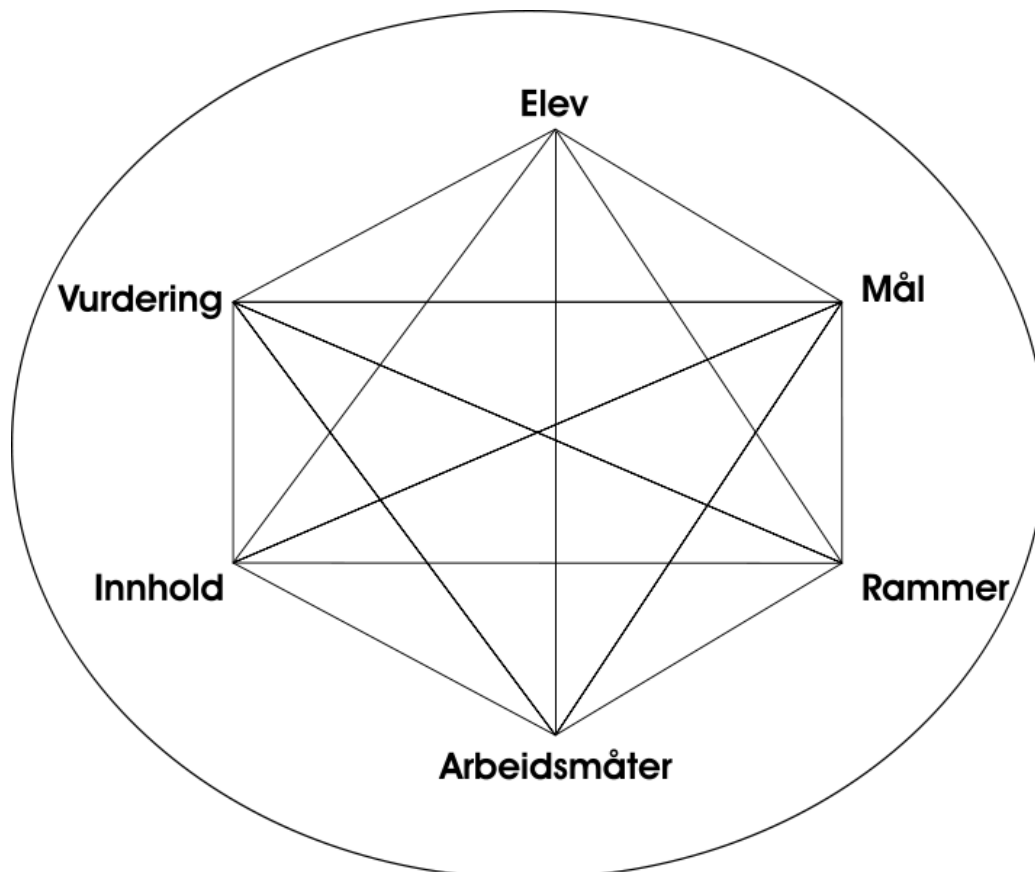


Figure 7: The didactic relationship model. Taken from the wikipedia page, "Didaktisk relasjonstenkning"

The didactic relationship model can be used to assess what needs to be taken into account when planning and forming a teaching scheme. The meaning behind the model is that these six teaching categories (student pre-requisites, learning goal, learning process, framework, content, assessment) are of equal importance and tie into each other. For example, to establish what the learning goal of a lecture is, teachers need to think about what content is relevant to achieve such learning goals. To illustrate how teachers could plan a teaching scheme around using *Frostpunk*, I will attempt to discuss how it could be formed with basis in the three competence aims presented earlier in this chapter and the didactic relationship model.

A teaching scheme that uses the video game as its basis for the main activities could need some time to allow students to play through a portion of *Frostpunk* and the teacher needs to ensure that the classroom has the necessary equipment to have the students play the video game. The learning goals for the lesson could be that the students are supposed to learn how what oppression is and that they can explain it with relevant examples from the real-world and in the video game. Students' competence in English always varies within classrooms, so there needs to be taken specific actions to adjust the teaching to this. To assess, there needs to be established work that can be assessed, which could be, for example, the students preparing and presenting their playthrough and reflections about the topic of oppression to the class.

An estimated span for such a teaching scheme could be 4-8 sessions to interpret and reflect about the video game, as well as discussing and presenting for assessable work. As *Frostpunk's* age rating is 16 years and older, it is possible to use in 9<sup>th</sup> and 10<sup>th</sup> grade with the explicit permission from parents and school administration. The only display of violence and other adult topics within the video game is shown through text and is never shown visually. That is why it is important to disclaim what could potentially be disturbing content to the class, parents, and school administration.

The students' time with the game could last an estimated 3-4 hours, with the option of instructing the students to play and do tasks at home. The average time to complete a playthrough of *Frostpunk* is 6-10 hours, therefore the students will not be able to complete an entire playthrough in these sessions, yet it will allow them to get a proper understanding and insight into the narrative of the game and progress close to halfway through. Buying game licenses for computers, instead of other platforms such as consoles, would be recommended because of the access of school computers within the classroom.

When starting the teaching scheme, the teacher can introduce the world and narrative of *Frostpunk*, with emphasis about explaining key words and concepts such as apocalypse, dictatorship, ethics, and empathy. This will give the students an indication of the lessons' learning focus, while also engaging the students. Students can be instructed to play *Frostpunk* in pairs to have a discussion partner, practice using English orally, divide work and limit the costs of purchasing licenses. Dividing the class into pairs also serve to adapt teaching by placing students to adapt to their individual strengths and weaknesses, for example if only half the class has experience with playing video games, they can be placed with those who could use help to navigate the game's systems. Since the students will not be able to finish the game's narrative, it is important to use assignments parallel to the play to guide the reading.

As an assignment it could be beneficial to instruct the students to write a game-diary during and after gameplay. A game-diary can function both as assessable work and a way to document decisions and happenings within the narrative of the game. If this way of work is prioritized during the teaching scheme, the teacher could hand out specific criteria for how the students will write. The students can be instructed to write as if they lived the life of a civilian within the colony of the game and tell a fictional tale of how the leader of the colony treats them. Showing the struggles of a civilian under a dictator's rule is part of the persuasive goal of the game, which makes this a fitting exercise for the teaching scheme. Here, the students could either create an entirely fictional character or choose an inhabitant NPC within the game. There is a function to name inhabitant NPC's in *Frostpunk* to be able to follow the journey of a single inhabitant which would be useful in an assignment such as this. Players can at any time check the inhabitant's housing, place of work, health and see them living within the game. This approach would attempt to force the students to reflect and possibly empathize with the inhabitants of the video game, while creating assessable work.

Another example of an assignment could be to answer questions related to the decisions made in the video game during or after gameplay. Such an exercise would produce reflection from students guided towards a specific topic predetermined by the teacher. Answering reflection questions could be treated as an individual, pair and/or a group exercise depending on the level of emphasis the assignment has in the teaching scheme. To illustrate how this assignment can be used, some example questions were created:

1. "Did you make any decisions that you consider to be unethical towards the civilian inhabitants and do you think they were justified to make sure the colony survived?"
2. "What does it mean to be a good leader and a bad leader?"
3. "The people in the colony give full trust to the player to lead and there is no possibility for democracy in *Frostpunk*. What did it feel like to be the only person in charge with responsibility for many people?"
4. "How do we choose who survives in the colony? Does certain people have greater or less value than others?"
5. "How does the people in *Frostpunk* react to your decisions as a leader? Did you make changes to your rule because of their reaction?"

As assessment assignments, group discussion and presentations seem suitable as methods to allow students to showcase their experience with *Frostpunk*, while presenting their narrative

and work. When students are allowed to share their experiences with the rest of the class they can also compare directly and indirectly how their narratives are similar and different from their own. The students will have differing results and choices made during their playthrough and some might adopt radically different playstyles. By allowing the students to choose their own playstyle freely, the teacher might experience some students attempting to be cruel towards the inhabitants, yet it could serve to engage a discussion and reflection of the necessary and unnecessary evil of a dictators will. Another method that can be used to create assessable work is to instruct the students to create dramatized recreations of a situation that could happen in *Frostpunk*. Dramatizing as a method allows students to be creative, display what they have learned and develop their language proficiency. Since *Frostpunk* leaves much of the narrative up to imagination, such as the individual inhabitant's daily interactions with other inhabitants, there is much room for creative expression from the part of the students. Dramatizing an event in the narrative is an option to produce assessable work, such as the waves of refugees or the adaptation of a controversial law.

Presuming that the 9<sup>th</sup> or 10<sup>th</sup> class in question has a wide range of proficiency in the English subject or regarding video games, there are several ways to adapt the teaching to each student with preparation from the teacher. One way of adapting teaching to those who are less proficient in the English language is to pair students that could use assistance with reading with someone who is more proficient in English.

### **5.3.1 Interdisciplinary topics in *Frostpunk***

In the core curriculum, the interdisciplinary topic of *Democracy and citizenship* is defined as giving students knowledge about democratic processes, values and rules to prepare them for participating in democratic processes (Norwegian Directorate for Education and Training, 2020). In other words, it is more than simply teaching how a typical democracy is governed, but also as a way of teaching about how human rights ties in with our form of liberal democracy, such as the right to free speech and assembly and the right to vote. The skills that are supposed to be developed through this interdisciplinary subject also includes how to think critically, respect differences in opinions and tolerate disagreement (Norwegian Directorate for Education and Training, 2020).

Regarding the interdisciplinary subject of *Democracy and citizenship*, there are several ways to make *Frostpunk* relate to it, and enable learning about it. The most apparent themes that are relevant is the power difference, class struggle and oppression of citizens within *Frostpunk*.

Though the presentation of these themes is simplified, it could serve to introduce the main ideas of what a government is, how it could function and how the different types of government impact civilian populations, including non-democratic types. This could also be tied to power configuration to issues of social class differences. Another aspect of *Frostpunk* that could be beneficial to learn with respect to *Democracy and citizenship*, is that the students are allowed to experience a fictive version of what it is like to govern, which could contextualize what they learn outside of playing the video game.

Teachers could introduce vocabulary from the realms of democracy, ethics and empathy to help pupils understand what they encounter in the *Frostpunk*'s narrative, and the choices it requires the player to make. Terms such as “democracy”, “dictatorship”, “morality”, “empathy” and “ethics” seem especially important to define and explain to students before students explore these themes while playing the video game. It serves to guide the *reading* while also preparing the students for understanding the content within *Frostpunk* and their ability to use these terms when reflecting in the assessable finishing work later on. Terms can be explained at varying levels of depth and complexity corresponding to the prior knowledge of the recipient, but contextualizing these terms within play might open the recipient for a deeper understanding of what they mean in practice.

Within *Frostpunk*, there are parts of the game that would be suitable to use of in terms of reflection and discussion in a teaching scheme that focuses on learning about democracy and citizenship learning. An example of this could be to discuss the distinct differences between a democracy and a dictatorship by using *Frostpunk* as a simplified representation of how a dictatorship government works. Dictatorship is visible throughout a play of *Frostpunk*, but it becomes increasingly apparent the more the player disregards the wishes and suggestions of the inhabitants. By adhering to the wishes and advice of the inhabitants they are “allowed” to participate in affecting the decisions of the player, but they cannot force the player to do anything. With the addition of a discussion about this in the classroom, the elements of dictatorship can be pointed out and discussed with respect to democracy. In such an exercise, the teacher can use multiple texts to illustrate the differences, such as pairing playing the game with a traditional text, either fiction or nonfiction. For example, using a feature film, such as *Schindler's list* (Spielberg, 1993) which also shows the perspective of a dictatorship that oppresses certain parts of the population. When pairing two or more works, it could be

beneficial to form reflection questions to guide reading in the direction of comparing how the issue of dictatorship is present within both works and the real world.

Another example could be to create a reflection exercise of how students can impact how leaders make decisions, such as voting and expressing their opinion. The inhabitants of *Frostpunk* are not afraid of expressing how they feel, but the player can choose to suppress those who are not in favor of their decisions, especially when adopting the “order” path. This creates a suppression of citizens that does not allow for participation, and encourages citizens to pretend to agree with the leader because of the implication of consequences if they do not. In an “order”-path scenario with the “new order” law enacted, some inhabitants will revolt and oppose the militant forces, at the risk of death. The player can also build propaganda centers to spread misinformation: the concept of propaganda, as distinct from simple ‘bias’ built into a difference in opinions, is another element that could be important to explain and discuss in the classroom.

In such a teaching situation, the teacher could be able to move ‘outside’ the games relatively scripted world, and compare its parameters for action, emotion and empathy with those in the real-world. This would perhaps not only allow the game itself to ‘teach empathy’, or the lack thereof, but also frame it in a larger context, where choices and dilemmas may be different and perhaps more complicated. A real-world example that could be referenced to draw similarities to the governing in *Frostpunk* is the Chernobyl nuclear powerplant accident in 1986 in the USSR, in regards to how soviet scientists and witnesses were forced to lie about how severe the consequences of the accident were. This spread of misinformation prevented people to organize damage control of the radiation that spread across large parts of the world, as a result creating increasing variants of cancer among people affected. Such an example reflects the ethical consequences of a dictatorship, while highlighting the importance of democracy and that democracy should not be taken for granted which are central learning principles within *Democracy and citizenship*.

The interdisciplinary subject of *Sustainable development* could be relevant when forming a teaching scheme with *Frostpunk*. This topic can be defined as providing understanding of protecting life on earth and providing for the needs of people without prohibiting the needs of future generations. It is supposed to give students skills regarding to discuss basic dilemmas and how developments in society can be dealt with. The topic of sustainable development learning is also used to reflect on how individual choices are significant regarding issues such



as climate, poverty, distribution of resources, conflicts, health, equality, demographics and education. (Norwegian Directorate for Education and Training, 2020). In *Frostpunk*, these topics are present within the setting of the game. In the literary and cinematic fiction works that *Frostpunk* likely draws inspiration from, *Le Transperceneige* (Lob, J. & Rochette, J, 1982) and *Snowpiercer* (Joon-ho, 2013), the world's global freeze is human made. While the cause of the apocalyptic freeze within the story of *Frostpunk* is volcanic eruptions that cooled down earth in a volcanic winter, the apocalypse can be interpreted as a forewarning of how human made environmental disasters could affect us in the real-world.

In a teaching scheme, *Frostpunk* could possibly be used to illustrate how global environmental change and disasters affect people, and how it could disrupt the economy within a government. While the video game presents an apocalypse that is extreme compared to how slow the environmental changes act in the real-world, there are real-world examples that could resemble the way the inhabitants of *Frostpunk* live. For example, people are experiencing the consequences of the opposite of a global freeze, namely global warming. As of the year 2022, the regions in the world that are the most affected by heat waves are South Asia, Middle America and Northern Africa. Heat-waves negatively affect and cause serious problems for everything from human health, agriculture, economy and energy consumption. Coincidentally, these are exactly the problem areas the colony faces within *Frostpunk* which the player has to manage if the colony is to survive. When discussing global environmental changes in an educational setting, it is reasonable to believe that *Frostpunk* could serve as a parallel to the real-world to illustrate the human suffering that ensues because of human made problems and how developments in society can be dealt with.

Another topic related to sustainable development learning that is important within *Frostpunk*'s narrative is the scarcity of resources within the colony and how the player must find ways to overcome this problem within their society, which can be directly correlated to this interdisciplinary subject. What separates the colony from the rest of the world is a large wall of ice that surrounds the colony because of the melting caused by the generator in the middle. When starting out a playthrough, the player and the colony do not know if they are the only survivors in the world, but the player can put together inhabitants to form scouting groups to explore beyond the ice walls. Because of the melting of the ice and snow surrounding the generator, the colony has access to what lies beneath, such as frozen trees, coal piles and steel wreckages from the time before the apocalypse.

The progression of the game starts by gathering the resources that are readily available on the ground, but these piles of resources are highly limited. The player will notice later that there are not enough resources to sustain the colony as the winter becomes increasingly colder. However, the player has the ability to research new technologies to find solutions to the scarcity of resources, such as drilling with large machinery into the ice walls to gather more wood and steel or drilling into the ground to gather more coal. Technology is framed as having a purely positive impact in the game world and that the archaic way of using coal to fuel all machinery is good. Specifically, regarding the use of coal, it does not translate very well to how we want to preserve the earth in the real-world present time with renewable sources of energy. It does, however, drive a striking parallel to the necessity to use of coal during the industrial revolution time period to advance the technological world, which coincides with the time period the game is meant to portray.

While the use of coal is absolutely necessary within the game world, it has been proven that coal is not an efficient source of energy and has major consequences regarding the expulsion of climate gases. *Frostpunk* does not problematize climate gases or attempt to frame the global freeze as man-made, which could be important to disclaim, discuss and problematize within the classroom if there is a focus on teaching about climate change. In practice, an approach to this could be to draw specific comparisons between renewable sources of energy and non-renewable energy real world, such as solar energy and fossil fuels. When using *Frostpunk* it could also be important to draw similarities to how the resources in the game are of limited quantity and cannot be renewed.

Both the interdisciplinary subjects of *Sustainable energy* and *Democracy and citizenship* are based on ethics and empathy for other human beings. When teaching these subjects, I would argue that it is important to explicitly discuss the reason why these subjects taught in the first place, which is to actively participate in society to help others and future generations. Acknowledging others as independent human beings with their own ambitions and needs could be argued to be the first step that needs to be taken to learn how to help shape a society that is designed to take care of each other.

## **6 Conclusion: practical and pedagogical implications**

This thesis has discussed the potential for empathy learning and the exploration of ethical issues within video games. To inquire about this topic, a narratological and theoretical

approach was used to find potential within the video game *Frostpunk*, along with reflections about other video games and literary and cinematic texts.

Video games as a form of media is often regarded as nothing more than a means to be entertainment and that the competence players receive within video games cannot be translated to the real world. Fortunately, the last couple of decades, parents and teachers are starting to open to the idea that video games can be used as a means to educate, discuss and experience topics that can widen students' horizon of experience. Considering that the history of video games is comparatively short compared to the long history of literature, dramatization, and feature films, it could be argued that this media has just started to develop and integrate into society. Reading fictional texts and feature films coupled with imagination goes a long way in experiencing different timelines, histories, and culture, yet video games allow players to act and create their own unique personalized narratives within simulated worlds, which immerses them in lives they might not have been able to live otherwise. Video games are used in education as viable teaching tools to motivate and explore stories, but what use could video games provide regarding empathy learning and exploration of ethical issues?

Immersive technology-based experiences seem very promising to handle difficult moral quandaries, yet it is hard to visualize how it would be adapted to fit a practical and streamlined setting within education in the present time. Without further research about empathy learning in video games, such an approach might be seen as a mere gimmick to entertain students. Throughout my analysis of *Frostpunk* as a persuasive game, it seems that the game challenges the player to question their humanity, both inside and outside of the video game. *Frostpunk* frames ethics through the choices of the leader with the response from the non-player characters. By playing *Frostpunk*, it seems hard to regard the non-player characters as nothing more than programmed entities, while in reality they are exactly that. Video game characters are similar to characters in a play where an audience can greatly empathize with fictional characters while acknowledging that everything displayed on stage is a fictionalized representation of real emotional drama. In this sense, video games seem to rely greatly on immersion to be convincing and persuasive. *Frostpunk* introduces concepts through simulation that can be translated to a real-world setting.

The task of choosing videogames for education and defining what a “good” game for education is has been explored by theorists, such as Gee, Turley and Bogost. While there are some criteria of what a “good” game for education is, it is still largely up to each individual

teacher to explore what video games are suitable since the amount of video games available is massive. Commercial, educational, and political games can be vastly different from another regarding the potential for learning. Commercial video games are naturally not adapted for education, while political games and educational games are often condensed experiences. Commercial games, however, could be the category of games with the most flexibility of *how* and *what* to teach with them, but adapting such a game to teaching schemes requires a great deal of time, resources and planning from the part of the teacher. After discussing a practical application of *Frostpunk*, the findings give the impression of being suitable to be used in education to teach empathy and explores ethical issues in subjects such as English and Social Science, and in the interdisciplinary subjects of *Democracy and citizenship* and *Sustainable development*.

The approach and findings of this thesis can be applied to a variety of different games, genres, and teaching situations. While *Frostpunk* is mainly a strategy game with a focus on empathy and ethical decisions, challenges in the realms of ethics and empathy can be found in many different games and genres of games. The development of technology and the absence of teaching resources regarding video games seem to be the main impediment for video games to be embraced within education. Even though students are often supplied with computer technology in school, it does not necessarily mean that these computers are fit to handle the computational requirements of modern video games, such as *Frostpunk*. This is because the industry of video games evolves faster than educational organizations can adapt to it. This also means that the teacher needs to do the heaviest work to integrate technology through bureaucratic systems that the educational organization is based on. However, video games are still being used and adapted to educational settings despite this, which means that there is a wish and a drive that motivates the exploration of using video games in classrooms.

I would suggest to teachers who want to explore the possibilities of video games to educate to experiment and use the resources available to its potential. There are many pedagogues that specialize and provide guided teaching schemes that is designed to fit many different educational settings and topics, for example *Spillpedagogene.no*. To contribute to this database of resources, teachers can share their own guided teaching schemes to help others get the most potential out of specific video games.

## 6.1 Further research

Empathy learning through video games is a subject that is sparse in the realm of research and has potential to be greatly expanded upon. As this thesis is based on a theoretical approach to research, there are several ways to expand the research of this subject by testing it in practical situations. In order to build on this research, I would suggest forming an action research project which would complement its theoretical findings. An inquiry into how *Frostpunk* or other types of persuasive games work in practice to examine the effectiveness of teaching empathy. To be sure, the effectiveness of empathy learning can be difficult to measure, but researching how students react to an approach of empathy learning through an empathy-based game seems to be relevant to further expand the understanding of how empathy can be taught in practical educational settings.

Also, a wider narratological exploration of more video games would always be beneficial, specifically regarding the topic of empathy learning and ethical issues. Such a project might help teachers assess the suitability of certain games to education and the ways they can be used practically. A narratologically oriented research project that specifically examines educational games rather than commercial games could provide additional insight to how video games can be used in education, where these types of games are compared in relation to their learning potential.

Another approach to research could be to do a qualitative interview-based study to examine how empathy learning is framed within education, while testing *Frostpunk* with teachers as participants. Individual and/or group interviews would provide an insight into teachers' thoughts, opinions, and experiences with using video games in education. Interviewing teachers specifically, in contrast to interviewing students, could provide a more complex conversation about how user friendly *Frostpunk* is. In such interviews, it could be beneficial to ask about their experiences with *Frostpunk* regarding empathy learning in practical educational settings, their opinions about incorporating video games in teaching schemes, and their take on the various practical challenges that could occur when using video games in class. Here, the interviews could be most beneficial to be semi structured to create room for follow-up questions, to steer the conversation towards relevant subjects and a natural flow in conversation. A group interview could be beneficial because the views and arguments that arise could build upon each other, which could lead to a deeper discussion amongst the participants (Gleiss & Sæther, 2021, s. 80-81).

The interview questions could be formulated to, for example:

1. Game related questions
  - a. What impression did you get of *Frostpunk* while playing?
  - b. What was the most important choices you had to make in the game?
  - c. Did you happen to face some choices you thought was especially hard?
    - i. How did you choose to approach these problems within the game?
2. Empathy related questions
  - a. How do you interpret how the game presents ethical choices and empathy?
  - b. How would you describe the relation you had with the population within your colony?
    - i. Did the population's feedback affect the way you made decisions?
    - ii. Did you in any way become emotionally affected by what you did in the game, or how the population reacted to your decisions?
3. Education related questions
  - a. How would you describe empathy learning within education?
    - i. How would you define the term, "empathy"?
  - b. How do you interpret the teacher's role in relation to empathy teaching?
  - c. Could you picture how *Frostpunk*, or games like it, could be used to teach empathy to students?
  - d. Could such a survival game be used to persuade students to either change the student's opinion or shape new attitudes regarding, for example, refugees, climate change or poverty?
  - e. Do you think there is value in bringing video games into education?
    - i. If you think that there is value, how would you personally use video games in education?

Questions such as these could provide the research with perspectives of how teachers with different subjects, experiences and familiarity with video games would adapt video games to their own teaching. It is also reasonable to believe that teachers will provide varying answers and present their own unique perspective if they think video games are beneficial to be used as empathy learning platforms. This could be especially relevant in the sense that empathy learning and social development is not standardized in any way, except for the guidelines provided by the curriculum. Teaching empathy through playing video games is only one of many approaches to do this within practical education. An interview-based research project

could also be helpful to develop the participants competence regarding video games in education.

Exploring video games as literary texts regarding the potential for empathy learning does not have to be confined to the realms of consciously empathy-based games, such as *Frostpunk* or *This War of Mine*. Looking past narrative video games, I believe that cooperation and team-play within competitive team-based games, such as *League of Legends*, *Rocket League* or *Counter-Strike*, could be researched to find methods and tools to teach empathy. The research of regarding online E-sports and empathy also seem to be sparse, which could be another direction of a research project with a focus on empathy and video games.

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