The digital era for ideation

A study of ideation for game design students in Swedish educational institutions post pandemic

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Abstract

Ideation is the act of producing new ideas and can be done either individually or in a group environment. Although ideation can be done individually, it is usually conducted in collaboration with others and is often done in a physical environment. When the pandemic struck in early 2020, people in Sweden were urged to isolate as much as possible to reduce the spread of the virus. As such, much of the work at schools and jobs had to move to a remote environment. This study explores the challenges and the opportunities that are posed for game design students when working with ideation in a collaborative online setting.

The goal of this thesis is to identify the problems as well as opportunities that surface due to remote education and how different areas of remote ideation and collaboration affect the game design students studying in Swedish higher education. The game design students' experience of remote ideation and collaboration in Swedish educational institutions is an area that requires more research, and the issues they are facing when working in this fashion thus need more exploration.

Through survey as a research strategy, a total of ten semi-structured deep interviews followed by a thematic analysis of the transcriptions of those interviews were conducted, following which a set of three main themes - 'social interaction', 'remote group projects' and 'digital ideation and collaboration' were created. This suggests that there is a different number och challenges and opportunities for each individual, but that there are some common conclusions that can be drawn. The logistic differences that remote ideation brings compared to physical ideation and collaboration can be seen as advantageous, meanwhile, the psychological aspects that arise from remote education and not meeting each other in person appear to be more challenging in nature.

Keywords: Ideation, Collaboration, Remote work, Digital tools, Communication

Synopsis

Background	This thesis focuses on digital ideation and collaboration. One of the aspects of life that the pandemic affected was education. People had to adapt to working remotely which came with many challenges, but there were also some advantages that could be drawn from working remotely.
Problem	Due to the swift shift to remote education, game design students may have challenges that are important to explore to properly assist them in the future
Research question	The research question of this thesis is "What challenges and opportunities exist for game design students in Swedish institutions when working with digital ideation in a collaborative online setting?"
Method	The research in this study was conducted with empirical data as its core with a survey as the research strategy. The selected data gathering method was semi-structured interviews to gather qualitative data and later conduct a thematic analysis of the data.
Result	There were clear differences between working remotely and working physically. Students expressed their different opinions on the matter but ultimately it was revealed that the results of the research question differ between individuals. Differences in logistics and psychology were measured, but it's up to the individual to decide whether they are a challenge or an opportunity.
Discussion	A possible limitation of this study could be that the last few interviewees were picked through convenience sampling which may reduce the validity of the thesis. The ethical and societal impact this study has should be neutral or positive considering that none of the information should be able to be used to negatively impact game design students. There might be a risk that the data from the study may be misused by people who want to further their own agenda and disregard context or other important factors about the findings of this study.

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1 Introduction

1.1 Brief background

Due to the situation in Sweden that happened because of the COVID pandemic, with people being recommended to stay at home to reduce the spread of the virus in society, most workplaces had to adapt accordingly and allow workers to work remotely. While game development could be argued to be an industry that has people with an easier time adapting to changes due to their technical expertise, there are some areas that use methods and techniques that naturally are done in a collaborative, physical environment (Fullerton 2014). One of those areas is ideation of game design, where people usually get together in real life to ideate through various methods such as card-based ideation or brainstorming.

1.2 Problem

The ideation process is often collaborative in nature, and not uncommon to be held in a physical environment. This may lead to collaborative issues in situations where people don't have the possibility to physically meet, and have to work together remotely. Some of these issues can be technical in nature such as equipment not working properly, while others may be due to differences that occur in remote communication such as body language being harder to perceive.

1.3 Research question

What challenges and opportunities exist for game design students in Swedish institutions when working with digital ideation in a collaborative online setting?

2 Background

2.1 Ideation and collaboration

When a collaborative product is developed, there is a stage in the beginning of the process where the conceptualization of the work takes place; sometimes called the ideation phase. This is where ideas are created and fleshed out, core concepts discovered and explored and the groundwork for the rest of the project is built. There are a great variety of methods used for facilitating this phase and their purpose is to stimulate and encourage new ideas to form and to help the people involved to inspire each other and present their thinking to the group (Spence 2014). In his book on creativity, Csikszentmihalyi mentions five stages in the creative process that the mind goes through to form new ideas. These are preparation - experience and exposure to situations and concepts related to the idea, incubation - the time needed for the mind to process thoughts, insight - when concepts and patterns line up for the familiar 'aha' experience, evaluation - the deciding process of what is worth to continue pursuing, and elaboration - the processing, working and refining of that which has emerged (Csikszentmihalyi 1997). As might be inferred by steps two and three (incubation and insight), these five stages are not strictly linear but rather it is more of an iterative process continuously going on. As Csikszentmihalyi states, the creative process is something that is never truly done, and if one so wishes could go on without a definitive end.

In the article *Collaboration: A Literature Review*, Lai defines collaboration as the "mutual engagement of participants in a coordinated effort to solve a problem together." (Emily R Lai 2011). Collaboration is essentially the result of a group working together to achieve a goal. Lai discusses different aspects of collaborative interaction like negotiations, interactivity, and interdependence and how these factors can affect learning in a positive way. This means that collaboration can be used in a positive way when it comes to universities and other environments where knowledge can be acquired since the collaborative interactions if handled properly leads to productive growth for the individuals in the group. Lai mentions how collaboration has become an essential skill in the 21st century for higher education as well as the job environment. She also contrasts this with the fact that the collaborative process has become important in itself rather than just a way of getting things done in a group environment. Being able to work in a group is a sought-after skill in this day and age and thus many academic institutions have begun to put more emphasis on the collaborative nature of education. This means that the higher level of collaboration skills an individual possesses, the higher their chance of succeeding in life. Lai notes that a word that is often used synonymously with collaboration is cooperation, but she points out that the difference between collaboration and cooperation is that cooperation usually is just dividing up the tasks and working in parallel meanwhile collaboration means working together on the same task. This can be hard to discern at times since there can be unexpected task division even within a collaborative task (Dillenbourg et al. 1996).

Johannesson & Perjons writes that a well-established method for idea generation in groups is the brainstorming activity (Johannesson & Perjons 2014). Originally a method first mentioned by Alex Osborn in the late 1940s to improve the productivity and creativity of groups in the advertising business, it has since gained widespread use in many different fields and areas and is now more used as a generic term for group ideation (Johannesson & Perjons 2014). An important aim of the method is to generate loads of ideas where quantity is preferred over quality; nothing should be dismissed at first

glance. There has been significant research done over the years about the efficiency of using different kinds of brainstorming techniques and how it affects productivity. Results suggest that even though there is a perceived increase in idea generation, the opposite is often true. Generally, the larger the group, the greater the loss (Nijstad & Stroebe 2006). Still, it is a widely used method - for example, Kultima writes in her paper that of 23 interviewed Finnish game developers, the most widely used and recognized ideation technique was brainstorming (Kultima 2010). Nijstad & Stroebe further concludes that the main reason for brainstorming being less efficient is because of what they call production blocking, where group members are prohibited from expressing their ideas at the time they would like due to having to wait for their turn to speak, a problem which naturally increases with group size. The research suggests that decreasing the effect of production blocking increases productivity, which leads to digital solutions being effective for this purpose. In such settings, participants can bypass the need to wait for their turns and instead have a shared digital environment to share and take part in other ideas (Nijstad & Stroebe 2006).

2.2 Forced readjustment due to world pandemic

Traditionally, ideation group activities have been performed at a physical location such as a school or a workplace (Fullerton 2014). This is probably due to the fact that up until recent years, especially before the advent of widespread supply of affordable home computers and fast internet, you had to physically meet with others to meaningfully interact with them. There is also the fact that we are human beings and (at least somewhat) social by nature, and therefore enjoy what the company of other people can bring. Hence, in groups working trying to invoke new ideas, the many different types of ideation activities used such as brainstorming, mind mapping, card-based ideation, and prototyping were primarily carried out with physical tools. It was simply the habit of how it was done, and what felt most natural.

When the pandemic hit Sweden in the beginning of 2020, the conditions that people lived under changed drastically. Folkhälsomyndigheten advised Swedish citizens to stay home as much as possible and as a consequence, schools and workplaces were recommended to close down their premises and transition to distance education and work (Folkhälsomyndigheten, 2022). This for example meant that every business not deemed to provide essential labor had to adapt to this situation and provide a basis and means for their workers to perform their work from home. Digital tools were already available in many fields and situations and used to a varying degree, but now you not only could use them if you wanted to, but you also had to use them. And even though the pandemic is a transient condition, this forced readjustment may well have more permanent changes in both work cultures as well as people's attitudes towards distance work.

2.3 Digital ideation and collaboration

Digital ideation tools are available all over the internet which has allowed digital collaboration through online means. These tools have many features that normal whiteboards or other forms of analog tools lack since they are virtual, and features can constantly be added as digital ideation tools can receive regular support and updates. As seen by the purpose of digital ideation tools, they were made to be used by groups who work together which is usually the case in most forms of ideation. These tools make it so that groups can collaborate in real-time without having to be physically present in the same location. Many online collaboration tools that aren't advertised as ideation tools can still be used for ideation. Text editors purpose is usually to write essays or other forms of text documents, but it could also be used to write the different ideas that a group produces during a collaboration session. This

should illustrate that ideation tools can be beneficial, but aren't of utmost importance to the ideation process, since ideation can be performed in many different ways.

2.4 Previous research

In the article *Physical Versus Digital Sticky Notes in Collaborative Ideation* (Jensen et al. 2018), a digital version of sticky notes was developed with no extra features so it resembled normal sticky notes as much as possible. According to the authors, the goal of the study was to check the differences and similarities between the physical and digital versions as well as notice the difference in the handling of the artifacts and the impact it had on the collaboration process. The conclusion in the article was that there wasn't any notable difference between the two setups and thus the article argued that successful ideation through a digital setup is possible. It's important to bear in mind that the digital sticky notes tool was made to be similar to the physical version which could potentially mean that it could have outperformed the physical sticky notes if more work and features had been put into it. One of the focus points of the study was collaborative ideation where collaboration refers to "a setting where two or more persons (in this study two) work together in a joint effort as opposed to competing or challenging each other." (Jensen et al. 2018).

The article *Virtual communication curbs creative idea generation* (Brucks & Levav, 2022) alleges that video calls show a decrease in creative collaboration and generation of ideas. The study had 602 participants that were randomly paired together and the assignment given to them was to come up with creative uses for a product and also submit their best idea. Some of the groups worked remotely while others worked physically and the results showed that the groups that ideated physically had a notable increase in ideas generated compared to the groups that worked online. While the sheer volume of ideas generated by the groups working online was greater it is important to point out that the online groups had better best idea submissions overall based on the degree of novelty. The study also noted that the reason fewer ideas were produced in an online setting might be due to the narrowing of cognitive focus during online meetings. They observed this trend by measuring the time that a subset of the participants spent looking directly at each other and the time they let their gaze flow. This led to the discovery that people spent more time looking directly at each other during virtual meetings.

In the article *Internet Communication Versus Face-to-face Interaction in Quality of Life* (Lee et al. 2011), Lee raised important questions about how well internet communication can replace physical communication while keeping the same level of quality of life. The quality of life was measured by using Diener's Satisfaction with Life Scale on four Chinese cities being examined in the study which were Hong Kong, Taipei, Beijing, and Wuhan. The study's hypothesis was that internet communication would be able to improve the quality of life for people, but the results did not align with the hypothesis. Lee referenced many previous research articles in the field of online communication as well as articles about mental and physical health and how they are affected by physical interaction as well as online interaction. The presented articles were mostly disproving Lee's hypothesis with their findings. The articles referred to touched on many different points that speak against internet communication improving quality of life, for example, the ties with people you meet online are weaker and that people have more weak connections in life than strong ones.

The relevance of these articles in answering the research question "What challenges and opportunities exist for game design students in Swedish institutions when working with digital ideation in a collaborative online setting?" is that they provided meaningful data to contrast to the thesis dataset so that an elaborate analysis and discussion could be performed that offered new insight into the topic of digital ideation and collaboration. It also led to the eventual keywords chosen for the thesis.

3 Method

This chapter will cover the research strategies and methods selected for collecting and analyzing the data. It will also discuss potential ethical concerns that may arise and how they will be dealt with.

3.1 Research strategy

The research strategy chosen for this study is a survey through semi-structured interviews. The reason that a survey was chosen is that according to Denscombe in The Good Research Guide: for small-scale social research projects (Denscombe, 2010) there are three factors that determine which research strategy should be picked and these factors are: is it suitable, is it feasible and is it ethical. After considering these factors carefully it was decided that a survey was fitting for this study since Denscombe claims that surveys are useful when the goal is to collect basic data about a group. This study focused on the experiences and feelings of the participant to later be able to draw generalized conclusions about game design students which means that a broader view with as many data points as possible is a good fit to conduct this study. The ethical aspects of the study will be elaborated in a later section called ethical concerns.

An alternative research strategy that possibly could have been used is a case study. It would also fulfill the factors mentioned above, but Johannesson & Perjons alleged in their book "An Introduction to Design Science" that case studies are useful when in-depth research is conducted and that they aren't as useful for getting broad data (Johannesson & Perjons 2014). This means that a case study might not be a valid research strategy for this study since it doesn't fulfill the specific needs to get broad data on the topic which is required to answer the question this study researched.

3.2 Participants

Whether a survey was viable to collect the required data was also discussed and decided to be feasible. By sending out a questionnaire to game design students studying in Swedish higher education, people who were willing to participate in the interviews could be contacted, while also getting a distribution of students from different institutions. The method of sampling used in this thesis was convenience sampling which simply means using the group of people most accessible to the researcher (McCombes, 2022). This sampling method was used to find game design students in Swedish universities that have experience with ideation and collaboration.

3.3 Data collection methods

Considering the fact that the subject being researched in this study are the experiences of game design students while using ideating and collaborating remotely, it was decided that the most appropriate

method of collecting the required data would be through semi-structured interviews. This method is satisfactory due to the qualitative data it generates and it gives the individuals being interviewed the chance to properly express their thoughts and feelings about the subject at hand (Denscombe, 2010). A questionnaire was used to find people willing to participate in the semi-structured interview. However, conducting interviews and analyzing the data can be a time-consuming task that has to be considered as a potential issue.

There are some time constraints in this study which might have made questionnaires a more appropriate data collection method due to its ease of distribution and low cost (Johannesson & Perjons 2014). One of the issues with questionnaires that Denscombe (2010) brings up is that researchers don't get the chance to follow up on issues they might find later on in the research due to the way that questionnaires are structured. This is the main reason that a questionnaire wasn't picked as the data collection method since a specific question may require the participant to elaborate on certain points that may be found interesting and relevant which isn't always possible in a questionnaire.

3.4 Data analysis method - Thematic analysis

Since the collected data is qualitative in nature and has its focus on the game design students' thoughts, feelings and experiences, it was decided that thematic analysis would be a suitable data analysis method. Another reason why a thematic analysis was chosen is that the study has some time constraints which makes the method a good choice since it doesn't require much preparation and the data can be analyzed quickly and efficiently (Braun & Clarke, 2006). With thematic analysis, you can analyze and identify patterns and themes within data which organizes the data somewhat and also describes the set.

One of the potential pitfalls of thematic analysis that Braun & Clarke warn researchers about is having a weak analysis where a theme in question doesn't manage to prove a point or an argument to the reader through the findings presented (Braun & Clarke, 2006). This pitfall may occur if the researchers try to find a theme with not enough instances of data to support its existence and thus do not have much data to support assertions made about the specific theme. Another pitfall brought up is when the data and the claims formed by the analysis are not reasonable or even refute each other in some cases. That's why it's important to have adequate data when backing up your claims of the themes picked to avoid this problem.

3.5 Ethical concerns

All participants were presented with a form of consent before the interview where they were informed about the purpose of the study, how their information was handled and who has access to it. They were asked to agree to it, in which they were also told that their participation was optional and that they were allowed to leave the interview at any given moment should they want to. They were also informed that their anonymity was guaranteed throughout the whole study. Since the participants remain anonymous throughout the study, it is unlikely that the data gathered and presented will have any negative impact on them.

3.6 Application

A short questionnaire was sent out to game design students at different universities in Sweden in order to find potential candidates for conducting the semi-structured interviews. It was sent out with the help of the supervisor of this thesis and her interpersonal connections in other universities. The main purpose of it was to get contact information about people willing to participate in the study, and answers from a total of eight students studying at Uppsala universitet, Högskolan i Skövde, Chalmers and Stockholms Universitet were received. The questionnaire can be found in appendix A.

3.6.1 Interviewees

Interviews were scheduled with five of the students while the remaining three of them failed to answer the emails sent to them. To expand the number of interviews, the Discord server 'DISKord' belonging to the student union DISK at DSV was visited, where students in the channel for game design were asked if any one of them would be interested in participating in the study. This yielded three additional interviewees, while two more participants were found through interpersonal connections for a total of 10 interviews. Below are some charts with distributions over institutions, educational year, age and gender of the interviewees.
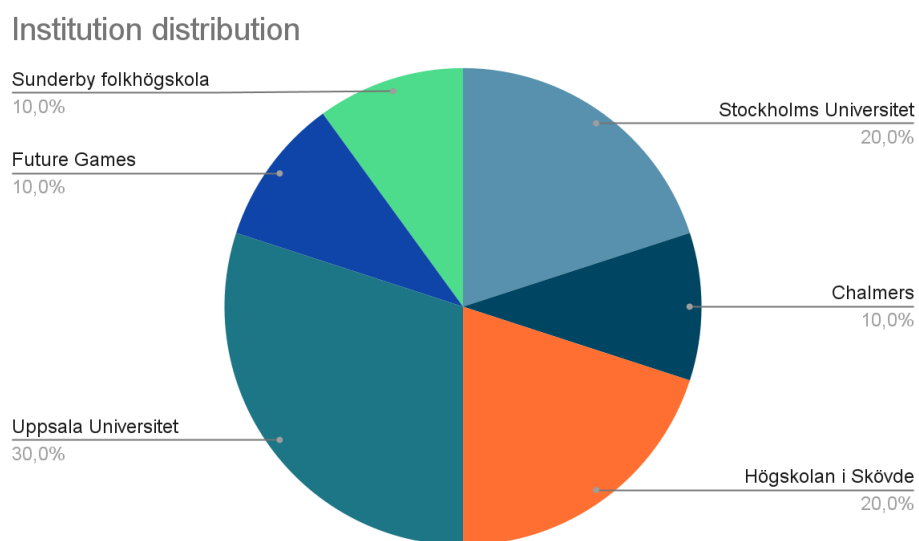
Chart 1: Institution distribution among the interviewees

Age distribution

43	21
10.0%	10.0%
32	
10.0%	22
	20.0%
28	
10.0%	24
27	10.0%
10.0%	26
	20.0%
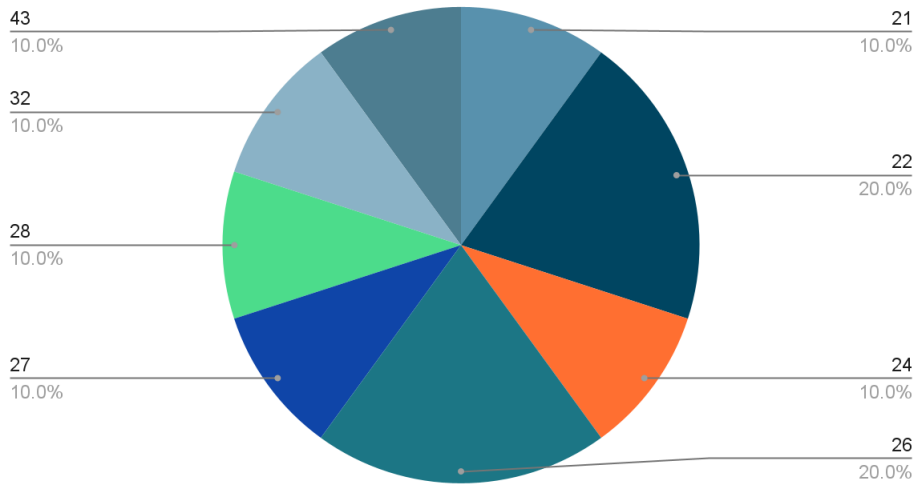
Chart 2:Age distribution among the interviewees

Educational year distribution

5th year	1st year
20.0%	20.0%
4th year	
10.0%	
	2nd year
3rd year	30.0%
20.0%	
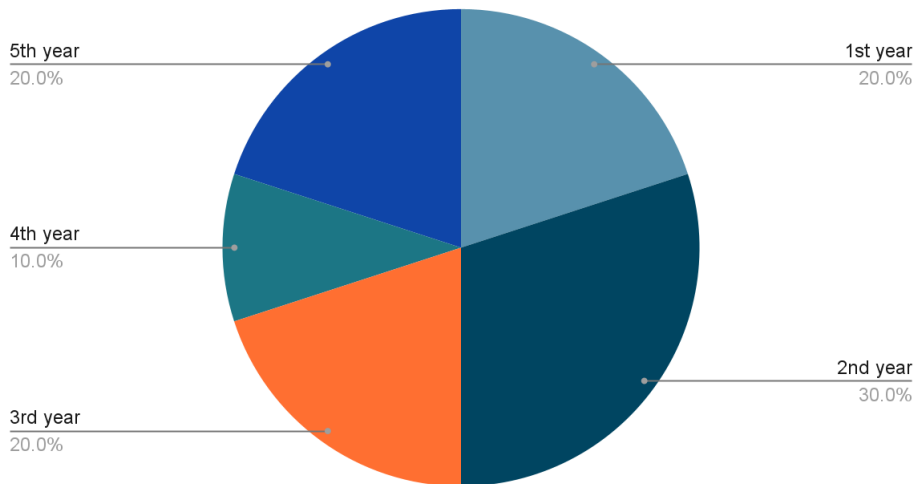
Chart 3: Educational year distribution among the interviewees

Gender distribution

Other
10.0%

Female
30.0%

Male
60.0%

Chart 4: Gender distribution among the interviewees

3.6.2 Pilot interview

A pilot interview was conducted with a game design student picked at random from the 'DISKord' server. Prior to this, an interview guide containing the questions and general issues to be explored was created. The pilot interview was about 12 minutes and 30 seconds in length and led to changes being made in the interview guide due to areas of improvement noticed from the answers received. The goal of the pilot interview was to measure the time the interview would take to conduct, as well as checking if the questions were properly un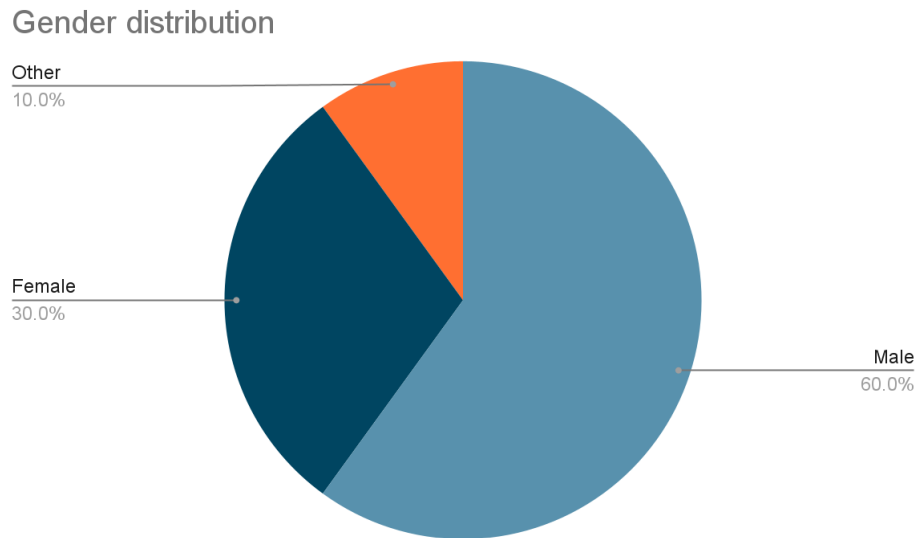derstood by the participant. Due to this reason, the only information recorded was the length of the interview. Another purpose of the pilot interview was to see if the data the participant provided could potentially be used to answer the research question of the study. The conclusions drawn were that there were too many questions being asked that focused on topics that weren't related to the study and that the phrasing of some questions prevented the participant from being nuanced in their answers. This led to the changes that were made in the interview guide, and the final version is shown in Appendix B.

3.6.3 Semi-structured interviews

The interviews were conducted in English over a period of two weeks and were held and recorded over Zoom. They varied in length due to both how eloquent the answers were and due to the experience gained after each interview, with the longest one being 32 minutes long and the shortest one being 7 minutes. The average length of the interviews was 19 minutes. The total time for all the interviews together was 193 minutes and 45 seconds. At the beginning of the interviews, the interviewees were informed about the purpose of the study and were given a document of consent to agree to. The semi-structured interviews were held with the help of the interview guide with questions prepared in advance, below are some of the questions asked that generated most of the themes from the thematic analysis.

Have you worked in any groupwork during your studies?
What role do you usually take in a group?
How do you prefer working in a group?

9

Describe how the process of beginning to create games looks like in a group.
What tools have you used when working digitally with other people?
Do you feel that there is any difference with ideation online?
In what ways did you communicate in the group by distance?
Does your school facilitate your group work in any way?

All the interviews were manually transcribed using the audio file of the recording of each interview. Everything said in them was written down, starting after the part where the interviewee was told that the recording began and ending after notifying the interviewee that the last question had been asked.

3.6.4 Thematic analysis

After transcribing the interviews and gathering all the qualitative data, the thematic analysis was performed in accordance with Braun & Clarkes (2006) step-by-step guide:

1. Familiarizing yourself with your data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

All the transcripts were read through and re-read until an understanding of what potential codes could be found was obtained. A total of 62 different codes ended up being generated in which the similar ones got grouped together to form the basis for themes and sub-themes that were believed to best represent the data. Below is a table containing those themes, while Appendix C contains a full table of the themes including the codes.

Theme	Sub-Theme
Social interaction	Experiences of social interaction
	Factors affecting communication
Remote group projects	Challenges
	Advantages
	School
	Logistics
Digital ideation and collaboration	Ideation tools
	Ideation process
	Collaboration

Table 1: Themes and sub-themes from thematic analysis

The analysis had an inductive approach in how it was performed in that the answers given were thoroughly processed and examined to find commonality between them. A preconception that formed the initial research question was that game design students made extensive use of different ideation tools in their initial ideation process, but the data gathered did not support that. This resulted in the research question being slightly altered from its original 'What challenges are posed for Swedish game design students when working with digital ideation tools in a collaborative setting?' to 'What challenges and opportunities exist for Swedish game design students when working with digital ideation in a collaborative online setting?', expanding with the notion of 'opportunities' and dropping the focus on ideation tools. A final adjustment was made after receiving feedback on the clarity of the research question and the selected research question became "What challenges and opportunities exist for game design students in Swedish institutions when working with digital ideation in a collaborative online setting?"

4 Results

This chapter will focus on the findings made in the data retrieved from the interviews. After the thematic analysis concluded, the following themes emerged as central for the analysis:

- Social Interaction, where the sub-themes are experiences of interaction and factors affecting communication

- Remote group projects, where the sub-themes are challenges, advantages, school and logistics

- Digital ideation and collaboration, where the sub-themes are ideation tools, ideation process and collaboration

The following section presents the themes together with extracts from the interviews

4.1 Social interaction

Social interaction is the act of communication between individuals of any form, whether it's physical, remote, oral or written. The interaction that is being analyzed in this study is primarily remote social interaction, but the different forms of interaction will be contrasted with each other to some extent. This section will relay the thoughts that the participants shared about their experience of social interaction throughout their studies.

4.1.1 Experiences of social interaction

This subsection will focus on the different experiences that the participants have had with social interaction and how their thoughts about how remote social interactions may differ from physical ones.

People's experiences of what social interaction looked like during the pandemic varied quite a bit and some were even contradictory to each other. There have been multiple reasons given for and against remote social interaction and the drawbacks and advantages it provides. In the data gathered some considered physical interaction to be better due to differences in communication between people physically and remotely.

> "I think people are nicer in person" (Interview 10)

> "You can like walk over to the other person and ask them for help, uh, and you can bring your laptop with you and be like, hey, can you look at this, what do you think?" (Interview 1)

> "...and also you can like learn to know each other easier, when you are not working you can just start talking to each other while you are often working and you log off from discord or whatever you are using" (Interview 5)

Some of the data suggested that there are some advantages with working remotely. Some activities that are physical could actually be easier to perform remotely. Preference for communication varies among individuals, and some people who might be shy and less communicative physically can be more open remotely and therefore work better when communicating online.

> "Definitely, because you can have a very different reaction from people that are online, so maybe online they are more comfortable" (Interview 4)

Another point of discussion regarding the participants' experiences of social interaction is how working and communicating remotely affected their well being. Not interacting socially with others could have negative side effects on their mental health, which several of them expressed explicitly.

> "Well, during the second year you are supposed to have your end of the year project, and they made sure that there were facilities that we could use… And then everything went remote but technically the room was still available in case we wanted to meet up, which we did a couple of times to not go insane" (Interview 3)

> "Other difficulties were that you sort of, at least personally, I can go into a state of lethargy if I don't physically interact with people. It like "yeah what do I do… " I do some work, then I just sit there." (Interview 3)

> "Yeah definitely uh, if you think about how humans react, we react very differently in person to people and we can feel their energy and thats why during covid there was a lot of people getting depressed" (Interview 4)

In conclusion, while some of the participants conveyed that remote social interaction was the preferred method of interaction, the majority felt that physical social interaction was overall more enjoyable and has aspects to it that aren't easily replicable in remote interaction. A lack of physical interaction could also potentially affect the individual's mental health in a negative way.

4.1.2 Factors affecting communication

Some of the participants were indifferent towards the topic of how communication is affected by how well the individuals know each other, but others had different opinions on the matter.

Answers to the question "do you think there's a difference between working with people you knew from before and working with new people?".

> "Not really, I mean, I'm personally pretty good at separating friends from work stuff so personally that hasn't been a big issue for me" (Interview 1)

> "I think the main difference is that if you are working with people you know, you sorf of know boundaries, you can throw jabs at people back and forth, like a lighter atmosphere. If you jump into a group of strangers, theres a part of me that just checks " ok so whats alright, how do I approach them properly, how do you go on with a conversation" and yeah, stuff like that."(Interview 3)

> "I mean its always a challenge i think, when i have to work with people i don't know, in the beginning before we dont know eachother and have to get to know each other" (Interview 7)

> "I think, I think it's easier to actually do the work with new people because then you have to make an effort and not seem bad, but with people who you knew before then it's maybe too relaxed" (Interview 10)

Another factor found in the data that affects communication is if the communication is carried out through voice or messages. Once again the opinions were split on whether communication through chat improves communication or not. Some of the participants thought chat makes communication worse.

> "having a voice call still evokes that kind of feel of a conversation even if you don't see the person in front of them, there is a lot that can be done through voice that can't be done through text even if you can't see the person in front of you" (Interview 1)

Others think that chat can be beneficial to communication in certain cases, for example when it comes to making sure people see the message that is trying to be transmitted.

> "I would say that the way I work, it was easier to get peoples ideas when we were working remotely because if we are talking in discord or in zoom, someone can type out something in chat and its there, its saved. So you don't miss anything" (Interview 3)

Another element that also affected communication was the setting in which the communication was conducted. Some participants expressed that there was a difference between communicating remotely and physically and listed some reasons for why this is.

> "Yeah, well i really do enjoy using body language as a tool when communicating, that's something that i have lacked throughout these years" (Interview 6)

> "and we also had the thing with actually seeing each other is a big difference i think, makes a big difference in reacting and seeing how people react to what your saying and all that" (Interview 7)

> "I mean, i definitely feel like there's a certain element that gets lost for sure definitely uh, but i feel like me as a digital native like, i who has grown up in the digital generation uh, i kind of have grown used to working with people over voice calls" (Interview 1)

In conclusion, the factors affecting communication that were established in the data consisted of how well the people working together knew each other, the way the communication was carried out, and depending on whether the communication was conducted in a physical or remote environment.

4.2 Remote group projects

Remote group projects were common to the game design students in the interview as all of them had some form of experience with working remotely with others. This section will discuss the challenges and advantages that occurred from working remotely as well as the institution's efforts to enable the game designers, and the changes to logistics that ensued.

4.2.1 Challenges

One problem with working remotely was the feeling that it wasn't as enjoyable as when working together in a location. Missing out on meeting other people made it feel less enjoyable partaking in group work. As one participant said when talking about types of group work:

"Yeah, well, i really do like working on site, it's what i did for years before i started studying and it's, i just think it's a lot of fun to meet your colleagues and friends, yeah you know, be able to hang out. It's easier to discuss things in person" (Interview 6)

Another challenge was the fact that different people have different kinds of setups when it comes to what technology they have available, which means that problems can arise from a purely technical standpoint when working with others. For example, one person can have a glitchy microphone leading to their sound cutting off or an unreliable internet connection causing constant disconnects to the other group members.

"Yeah, so the main two things for me are the technical difficulties that comes with that, everybody has different equipment, sound quality, ISP, stuff like that, always hindrance in some way." (Interview 7)

Finding energy to focus was also something that proved to be a challenge when working remotely. Being at a workplace or in school meant that the time spent there was more dedicated to the work since it is the reason you are there. When working from home it is always easy to put away some time to do other things and spread out the work over longer periods during the day. It was also said to be easier to get distracted by other things in your surroundings when working away from the rest of the group.

" There's also a difference in how eh, focused like how, like the mental energy is being like eh spent, I feel like when you are working together in a group, eh, you, eh, you can dedicate your energy to those hours, but when you are working remotely, it's more like you kinda have one stand up meeting" (Interview 1)

"When it's online there's distractions from pets and kids and everything else that goes on in your life when you're home, but when you're at work, all of that life matters usually stay out of the ways so you can focus on the work you are trying to do" (Interview 4)

Not having to directly answer to the rest of the group at any moment was also found to be affecting the discipline when working remotely. Since nobody is physically around you to help keep your mind on the work at hand, it was found too easy to let yourself drift into doing other things. Even though other people may be present in the virtual environment you are working in, it is easy to be tempted to log off for a while and do non-work-related things.

"This way [online] is to much freedom and everybody can do whatever they want it and you know, its less strict…" (Interview 2)

" I would say that it was more procrastinating going on after the pandemic hit. You know, everything goes remotely, you sit at home, you think 'oh well I don't actually need to wake up in the morning, I can work later'. "(Interview 3)

In conclusion, the main challenges connected to remote group projects in the gathered data were motivation, focus and the potential learning curve for different programs so that they can be used properly in a group setting.

4.2.2 Advantages

An advantage was found in that was easier to get in touch with people in your workgroup when working remotely. Just because you are working on location in a group work, it doesn't mean that you are always located next to each other. When working together digitally, you can always just connect to another person and communicate with them if needed, without having to physically locate them.

> "In some ways it was easier to talk to some of the special sound designers and stuff cause they were always on a different place, but when you were on remote they were on discord so you could easier get access to them" (Interview 5)

Another interesting point was that interruptions from other group members were found to be less frequent when working remotely. People seem to respect each other's speaking time more when talking over the internet and are not as prone to cut off other group members to get their own voices heard.

> "Uhm…a bit perhaps. Because its easier to notice when someone wants to say something. Because we always use zoom, and everytime someone speaks there is a small thing at the bottom of the screen, so you can see when someone has something to say then 'oh yeah right!' whereas if you are in a group meeting [on site] everyone talks over each other…I tend to be the loudest voice haha." (Interview 3)

It should be noted that one interviewee found working remotely to have positive effects on the ability to focus, which contrasts the notion of keeping focus being a challenge when doing group work online.

> "Sometimes it can be good and it makes the team more focused as well, being online. I started online when i started studying and i think that was really good for me for my focus at least." (Interview 7)

When working remotely, documentation was seen as somewhat easier due to information being saved in chat logs and could be viewed by the group members whenever rather than having to memorize what was being said throughout the entire meeting.

> "I would say that the way I work, it was easier to get peoples ideas when we were working remotely because if we are talking in discord or in zoom, someone can type out something in chat and its there, its saved. So you don't miss anything, well of course there are always things you miss but less things you miss, whereas if you are 6 people in a room, one is supposed to take notes and people just throwing out ideas like crazy, by the end of the meeting you have forgotten half of it and you don't remember what the notes actually mean whereas on remote you sit on discord, you type out things, people talk it gets reinforced in their heads." (Interview 3)

In conclusion, some advantages do exist when it comes to working remotely and those are primarily, easy access to communication since you can connect with people from anywhere, focus may be improved depending on the individual, and that documentation and logs of communication could potentially be easier due to the chat functions in different applications.

4.2.3 School

The interviewees almost unanimously agreed that their respective schools provided adequate assistance for facilitating their group work.

Most of them felt that the school helped them well enough on the matter of finding group partners for everyone so that everyone could participate in the group projects.

> "they did and in the bachelor programme nobody would be left out you know, everybody would have to be in a part of a group" (Interview 2)

> "they basically say everyone who has not found a group tell us at the end of the week and we will help you. And usually they are put into groups which don't have enough people of certain disciplines " (Interview 3)

"Yes, so if they, you didn't find a group you'd talk to the teacher and they would discuss with you what kind of ideas and stuff that you liked or are interested in and then they talk to the groups and are like, hey there's a person who is very interested in this idea and i heard some chatter around that there was a group looking for someone for this or something and then they would try to get in contact with them " (Interview 4)

Some other fields that the interviewees felt the school assisted them through was efficient communication between the teachers and the students as well as different premium version applications that were granted to them.. The interviewees mentioned that the teachers were quick at responding and were efficient in helping them with their issues and that the different tools provided to them by the school were comfortable to work with.

There were also some areas where the students felt that the schools could improve to make remote education and collaboration easier for the students since working remotely is quite different from working physically. The areas specifically mentioned were teaching remote collaboration and providing tutorials for the different tools that are used during remote group work.

" I think in general they can be better with talking about how to work with team work and how to work together and giving feedback and stuff like that, cause that stuff is even more challenging especially online, so the more like "soft values" or whatever you would say is something, and then like how to use version control - in a good way haha because that workflow is very complicated and it feels like you are just trying to figure out on your own, whats good practice and what is not, and that would be nice to get some more teachings on." (Interview 7)

"I think maybe because…i spoke a lot with the new students and with students from other parts of studies like nature science and stuff like that…because i very much recommend discord to most people that i can, but for a lot of them they feel like its difficult to use so if they[the school] could have like simple simple tutorials on how to use it and stuff like that, because its a common tool for students." (Interview 8)

In conclusion, the interviewees seemed positive towards the educational institutions and the help they provided. Most felt that the schools did more than enough and even though there were some areas of improvement mentioned, it appeared as if the students were more than satisfied with the help they received in the form of aid in finding groups and assistance with technical issues.

4.2.4 Logistics

Moving to remote education and work triggered many logistical changes for game design students. It became easier to schedule and hold group meetings since the need for being at the actual location in order to conduct the meeting was no longer a requirement. This meant that planning and management of time within the group could also be focused on other aspects rather than pure logistical ones. For example, one interviewee said:

" Oh yeah, for sure, um, for example, you don't have to spend time booking a room, you don't have to spend time going to campus like you can work from home and that has its upsides and downsides but um, but I think personally it has been a lot more like a lot nicer for us to be like wake up at a reasonable hour to like being able to decide for ourselves when to do stuff" (Interview 1)

Most interviewees seemed to express the same opinion regarding travel time and scheduling which was that the flexibility of being able to avoid traveling and simply join a meeting remotely allowed for more time to be allocated towards actually working.

> " Well it was easier to get on meetings on time." (Interview 3)

> " Online is a lot more freedom of when people can meet up because they are more comfortable and you can just throw up a laptop and join the meeting or throw up a phone and join the meeting from wherever you are so there is more freedom in that respect" (Interview 4)

> "Yeah exactly, theres a lot more flexibility in that [scheduling meetings]. And also avoiding travel time." (Interview 7)

> "The thing is, if it's online then most people will like have easier to actually show up than if it's on place and also that's a huge problem, used to be, so i guess that's the hugest difference i think" (Interview 10)

In conclusion, travel time and scheduling are the areas that got affected the most due to remote work according to the participants, and the effects of moving to remote education appear to have had a positive effect when considering the logistical aspects exclusively. This does not mean that the overall impact is positive since some of the participants expressed that psychological aspects could lead to an overall decrease in productivity despite the time advantage gained by avoiding travel.

4.3 Digital ideation and collaboration

This chapter will focus on what ways different tools may help the game design students, how the students conducted the ideation process with others in the group projects they were part of, and how they collaborated in their projects.

4.3.1 Ideation tools

The use of specific ideation tools was not that prevalent when talking to the interviewees. It was not that the tools were deemed unuseful, but rather that there was a learning barrier that had to be passed when working with them:

> "Well, it can hinder like using software until you learn how to use it and you know, you have to have a will to learn and to use it, while on the whiteboard you just write or draw or whatever you want….But me personally, because im not like you know good with the….i mean, i have some basics about using software if i need to but like, im you know i guess…olderschool… so physical is for me kind of easier."(Interview 2)

> " I haven't used it myself too much, it's more of a habit thing, i haven't used it yet meaning that i am pretty bad at trying out new stuff without being forced, so, but, nothing more than that really" (Interview 6)

However, the potential efficiency of using digital ideation tools was praised. The ability to quickly move and rearrange things, space allocation, management and presentational features was seen as superior in a digital environment as opposed to the physical world:

> " And in some ways its even better. Its so easy to change stuff and move and remove stuff compared to "the real world". Its quicker, so it can even be a better way sometimes." (Interview 7)

> "Downside of the whiteboard is like the space, and you have to erase something to be able to present something new or keep kind of you know the track of like how the story develops, you

know, the idea how it develops from left to right or top down, so maybe thats easier in a software." (Interview 2)

"Because theres a lot of options like if you want to express like what would the character look like then you would easily pick like download of some pictures or some game you know and then just put them there and everybody could have like you know idea of "aha ok you want it to be like this, but whit this" or you know so yeah, it was helpful. And you could always write whatever you wanted, post it like sticker" (Interview 2)

In Conclusion, there are differences between physical and digital ideation tools and both have respective advantages and disadvantages. Physical ideation tools appear to be easier to use while digital ideation tools may have a better potential in assisting the ideation process due to the extra functionality that can be added to them.

4.3.2 Ideation process

The way the interviewees go about the process of ideating turned out to be very straightforward. Even though they mentioned being taught about how to work with and evaluate ideas in their education, they seemed hesitant to apply this knowledge:

"usually there's like a brainstorming phase where we generate ideas based on the prompt or the challenge we have received from the course, we have been taught several different ways of ideation or idea creation or idea generation and we have also been taught several way of evaluating these ideas however, due to time constraints it's not always as if we have the time to evaluate these ideas and honestly, discussing hypotheticals about an idea turns it into this kinda fractal dialog tree where you like just go far ways down into the…" (Interview 1)

"I know that some groups want to make use of post it notes and everyone just types down cool things that they would like to have in the game, but we started off with just describing a theme or rather feeling or, i started talking about other games that i would like our game to replicate and i started mentioning games as wrath and valheim…and then you get the whole conversation going, as soon as you have the theme or have something to provide the others in terms of inspiration it's quite easy to have these short games that we actually are creating, we're only working on them for seven weeks so, yeah" (Interview 6)

The key factor preventing them from doing a more structured ideation process seemed to be the time aspect. The fact that the games being developed had a short development time due to being parts of the examination in the courses led to feeling the need to allocate most of the time to producing content rather than ideating.

4.3.3 Collaboration

Being able to work in a group is an important skill to possess in game design and many of the courses they attend have group projects in them.

The data suggests that there are two different ways of working together in a group setting and these ways are splitting up the tasks or working together on the same task. It also suggests that most people prefer splitting up the work rather than working together on the same task and then combining all the different parts together into a finished product.

"Oh no no, not at all, like if we work on the same thing, then we're just gonna have like too many cooks kind of situation, like version control and all that is gonna be like hell if we all work on like the same thing" (Interview 1)

> "I prefer dividing up tasks and then you can look things over just to make sure that everyone understands whats going on basically. I personally think its easier to see what you have done, so when it comes to grading i feel its easier to explain what you have done and stuff like that, and i think that also if you divided tasks you get like…every person can do one thing and if one person gets stuck, the whole project doesn't get stuck." (Interview 8)

Some expressed a different opinion on the matter and would rather work together on the same task instead of dividing up the work.

> "I would say i prefer when people work on the same thing" (Interview 9)

It is of note that the participants might have understood the question about how they prefer working together differently since these statements seemed to apply after the planning phase of the project/group work. It seemed that most of them felt that the ideation process and planning process should be performed together as a group.

> " what we usually want to do is to just make sure that everyone in the group, as long as we are in school we try to make sure that everyone gets to have they saying before we make any decisions on what to create" (Interview 6)

> "Because usually with these school assignments, its a democracy so everybody has to agree on the idea" (Interview 7)

One of the participants mentioned an interesting thought regarding remote collaboration in a group environment. They believed that the SCRUM methodology is useful when adjusting to remote work and working remotely, especially when it comes to working with new people.

> "It is a very good framework for working, if you are a group that just jump into it with new people, then you need to count for some wiggle room on exactly how everyone will adjust to the workflow and get into the roles" (Interview 3)

Other participants also confirmed that they were using SCRUM in their studies and their group projects though they didn't elaborate on what thoughts they had about it and whether it was useful or simply being used due to institutional guidance.

Different phases in the project process require different forms of collaboration. The initial phases of the project might require the participants to work closely together while the later stages of the project can be divided up between the different participants to later be combined into a finished product.

In conclusion, most interviewees seemed to prefer working tightly together in the group during the ideation and planning phase of the project, as that requires a consensus among the group on how the project is to move forward. When working on the actual project, dividing tasks between individuals appeared to be the preferred choice of method.

5 Discussion

This chapter will discuss the results from the previous chapters and draw conclusions based on the facts presented and the previous research in the field. The chapter will also cover the limitations of this study, the implications the results may have and potential areas for future research.

5.1 Discussion

The aim of this study was to explore the challenges and opportunities that the game design students in Swedish institutions experienced during remote ideation and collaboration. There were many interesting ideas and thoughts provided by the interviewees and some coincided with the suggestions made in the previous research articles. This chapter is going to examine different aspects of the data and conclusions presented in the analysis and different factors that may have affected the data.

The opinions expressed by the participants in this study regarding whether digital ideation tools have the capacity to surpass physical ones is a factor that gets mentioned in the article *Physical Versus Digital Sticky Notes in Collaborative Ideation* (Jensen et al. 2018). The opinions of both studies are that digital ideation tools do have the capacity to surpass physical ideation tools since they have the option of adding extra functionality that physical ideation tools don't have. Another point of commonality between the article and the data that was gathered is that the ideal way of working depends on the situation and the individual, and that instead of deciding which tool to use between a physical version and a digital version the focus should be on using them in unison depending on the circumstances. The participants from this survey also seem to share the sentiment that the ideation process doesn't get affected by a noticeable extent when performed remotely which is another topic that gets brought up in the sticky note article. This is contradictory to the article *Virtual communication curbs creative idea generation* (Brucks & Levav, 2022) which claims that creativity gets hampered when conducted through a digital medium.

As previously stated most of the participants didn't seem to think that there was any major difference between physical ideation and remote ideation, but this isn't the case according to Brucks and Levav (2022). The main reason for this difference might be due to the fact that even though the number of ideas produced remotely is less than the ideas produced physically, the zoom article alleged that the best idea overall gets produced remotely which might lead to the individuals perceiving that an ideation session succeeds as long as the best idea possible was produced. Unfortunately, since the interview questions asked to the participants didn't allow them to reflect on this topic, this is simply speculation that may hopefully be researched more thoroughly in the future.

The article *Internet Communication Versus Face-to-face Interaction in Quality of Life* (Lee et al. 2011) has many interesting points in regard to how digital communication affects different aspects of a person's life and the degree of impact it may have. The article's conclusions concerning how strong a relationship built remotely is was similar to the conclusions drawn from this thesis' data in that the participants in this thesis also expressed that there are differences between knowing someone remotely and knowing them virtually. Another point of similarity between the data in this thesis and Lee's research was that remote communication can't replicate the sensation of physically meeting someone which was brought up by this thesis participants as well, and that negative side effects are likely to occur if a certain degree of physical communication isn't achieved.

As stated in sub-section 3.6.4 Thematic analysis, the first version of the research question had a focus on the tools for ideation used by the students. The data gathered suggests that such tools were rarely used, and that ideation as a concept was something that was easy to overlook when doing remote group work. The main reasons given were that when working on a project in the confines of a course, there is a very important factor in the time constraint that the group is operating under. This leads to the need to prioritize the work towards production rather than planning. It might therefore be suggested that ideation of the work is something that should be accounted for when planning out the courses if ideation is something that game design students are desired to properly learn.

Most of the game design students that were interviewed were satisfied with the help provided to them by their institutions, but there were still some areas where the students felt that the schools could improve. One of these areas was having more educational content concerning how to properly work remotely in a group environment. This skill probably hasn't been developed by many students since the need for remote education wasn't as common as it became during the pandemic. This means that many students may have struggled with adapting to remote collaboration since this was a new experience for them that they may not have been prepared for. The schools may need to educate students on how to work remotely so that they can achieve the best result possible despite the circumstances. Another aspect of improvement suggested to the educational institutions was that they should provide proper guides for different tools that enable remote collaboration. This is a point that was echoed throughout multiple interviews where the participants expressed that getting used to the tools needed for remote collaboration could be arduous and time-consuming. If the institutions assist with helping the students get used to the tools quicker it might lead to a smoother transition to remote work and enable the students to be more productive. It was mentioned that the schools are now more properly equipped to handle this sort of transition in the future and hopefully this means that future students won't have to go through the same struggles if a similar situation arises in the future.

With remote education came changes to logistics since traveling and meeting up physically were advised against by the government and institutions. This meant that communication and meetings were held remotely which should equate to students having more time to work since the time they would have spent traveling disappears. While remote education does remove travel time and makes scheduling meetings easier, it doesn't account for the psychological difference between working remotely and physically. Many of the participants stated that there were logistical advantages to remote education, but many of them also stated that remote work was less efficient or inferior to physical work, or that the quality of the work wasn't as good as the physical projects they've made. This might be due to the psychological aspects mentioned when working remotely. The main psychological aspects mentioned were, lack of focus, worse time management, lack of motivation and lack of energy. These factors might be offsetting the supposed time gained by working remotely by making the work process worse which turns the logistical advantages of remote work into an overall disadvantage. Some participants had opposite opinions regarding this matter and articulated that working from home could be more efficient or that interruptions were less frequent. One of the conclusions that can be drawn from this is that the logistics and psychology that affect the individual differs from person to person and that no generalized conclusion can be made considering the conflicting opinions on the matter.

5.2 Limitations

The sampling method of convenience sampling used in this study may very well have had an effect on the data gathered and subsequently the conclusions drawn from it. Denscombe (2010) notes that the use of convenience sampling is hard to equate with good research due to its basis on ease of

acquirement rather than the requirements of the investigation. However, the scale of the study was limited as well as the time at hand and the disposable resources. Out of the sampling techniques available, this one was both feasible and likely to yield results relevant to the research question.

Another factor that should be considered is the size of the sample, which landed on 10 interviews. This number is on the small end of the scale and saturation in the data received is not something that could be argued to have been achieved. However, the total population size is small considering reasonable estimates, consisting of all students studying game design at Swedish higher educational institutions, which means that an argument can be made that this study's sample size is of relevance. There is also no specific formula for exactly how large a sample is supposed to be in smaller-scale studies with non-probability sampling, and it is largely based on experience and good judgment and the discretion of the researchers to decide when data collection is finished. (Denscombe, 2010).

5.3 Implications of the study

The implications of this thesis should hopefully impact game design students who study in Sweden in a positive way. The collected data reveals different opportunities and challenges that game design students in Sweden have, and it should be possible to improve some areas by examining the data. Remote education was something that people weren't prepared for and thus caused a lot of trouble for many when having to readjust to it, but this thesis also revealed that the procedures used in remote education might be useful to incorporate even after returning to physical education.

Some risks are that people might look at the findings of the thesis and draw conclusions based on wrong assumptions about the data and thus not realize which problems are more important and ignore them. Logistics were improved due to remote education, but mental health was also impacted negatively overall due to lack of physical interaction which is why it is important to look at the context when talking about the advantages and disadvantages of remote education.

Lastly, institutions might find this research useful when assessing how they should approach remote education and how they can best equip the students to handle the different issues that occur when studying remotely.

5.4 Future research

The limitations in both time, sampling method and size in this study makes further research within this field suitable. A larger sample size of game design students could be interviewed and the sampling method be more carefully chosen in order to yield better data, and allocating more time for the study would be beneficial for the results as well.

Future research on how easy different digital tools are to use could be beneficial since the data collected showed records of the interviewees explicitly stating that learning to use some tools could be a time-consuming endeavor that wasted their time trying to learn how to use a tool instead of working. Research on how to make tools easier to use could thus be an area to study further.

This study only represents game design students in Swedish higher educational institutions and therefore the results can only be applicable to this target group. It would be interesting to carry out research around the same research question with students in other parts of the world to examine how their results might differ from this study.

5.5 Conclusion

There were concrete differences in logistics and psychology that were noted, and these aspects of ideation and collaboration appear to be where the main differences are between working remotely and working physically. Being able to avoid travel time and having the possibility to connect from a meeting anywhere are some of the opportunities that exist for game design students. However, these advantages can be offset by the psychological differences that the students experience when working remotely which have been described to have an overall negative effect.

Based on the data gathered it is hard to draw generalized conclusions regarding how game design students experienced remote ideation and collaboration. The differences that some students considered challenges were opportunities for other students which means that the exposure to remote ideation and collaboration can be seen as either positive or negative depending on the individual. As mentioned earlier, there were differences in logistics and psychology when working remotely, but how these distinctions affected the individuals varied on the individual's preferences.

The research question "What challenges and opportunities exist for game design students in Swedish institutions when working with digital ideation in a collaborative online setting?" can't be answered for every game design student since they perceived digital ideation in a collaborative online setting differently and what one may consider an opportunity might be a challenge for someone else.

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Appendix A - Questionnaire

Game design students experiences of online collaboration

The purpose of this survey is to find game design students who are willing to participate in a short interview about experiences in online collaboration.

Are you a game design student? *

○ Yes

○ No

Which university do you attend? *

Short answer text

Which year are you in? *

○ 1st year

○ 2nd year

○ 3rd year

○ 4th year

○ 5th year

Questionnaire first page

How old are you? *

Short answer text

What is your gender? *

○ Male

○ Female

○ Other

Do you have any experience of ideation techniques. for example, brainstorming, prototyping or *
sketching

○ Yes

○ No

Please submit your email here if you are willing to participate in the interview and we will contact you.
Thank you for your time!

Short answer text

Questionnaire second page

Appendix B - Interview guide

INNAN INTERVJUN BÖRJAR:
Känner du till begreppet Ideation? Om ja, kan du beskriva vad det innebär för dig.
Before interview starts:
Do you recognize the term ideation? If yes, could you please describe what it means to you.

Detta är vad vi menar när vi refererar till ideation i denna intervju: Processen av att skapa och komma på nya ideer, antingen i grupp eller på egen hand.
The definition of ideation we are using in this interview is: The process of creating or generating new ideas in a group environment or on your own

FRÅGOR
QUESTIONS

Har du jobbat i något grupparbete under studierna?
Have you worked in any groupwork during your studies?

    Har du jobbat med folk du kände innan ni började arbeta?
    Have you worked with people you knew before?

    Har du jobbat med folk du inte kände innan ni började arbeta?
    Have you worked with people you didn't know before?

    Vad tyckte du skillnaden var att arbeta med dom man kände innan?
    What did you think the difference was when working with people you knew from before?

Har ni jobbat på distans eller fysiskt?
Have you worked remotely or on site?

    Fanns det några fördelar med att arbeta på distans?
    Fanns det några problem/svårigheter som uppkom från att jobba på distans?

Interview guide first page

Roll i grupper
Role in groups

- Vilken roll brukar du ta i grupparbeten? Skiljer det sig något i hur du agerar i grupp beroende på hur grupparbetet genomförs (tex online vs på plats)? Tycker du att gruppdynamiken ändras något när arbete sker på distans?

- *What role do you usually take in a group? Is there any difference in how you act in a group depending on how the work is carried out (ex. Online vs on location)? Do you feel that the group dynamic is changed in any way when work is done at a distance?*

Hur föredrar du att jobba inom grupper?
How do you prefer working in a group?

Vill du jobba på plats med andra eller föredrar du att sköta jobbet via distans?
Do you prefer working on site with others or remotely?

Föredrar du tätt samarbete eller uppdelning av områden?
Do you prefer close collaboration or dividing the tasks?

Varför tror du att det är på det sättet?
Why do you think it is this way?

Interview guide second page

Beskriv hur processen av att börja skapa ett spel i en grupp ser ut.
Describe how the process of beginning to create games looks like in a group.

- Vad gick bra?
  What went well?

- Vad gick mindre bra?
  What went less well?

- Blev resultatet som du hade förväntat dig, bättre, sämre?
  Were the results as expected?

- Vilka verktyg använde ni för att underlätta arbetet? Hur kom ni fram till dessa?
  Which tools were used to make working easier? How did you decide on them?

Tools för samarbete
Tools for cooperation

- Vilka verktyg har du använt när du arbetat digitalt med andra personer? Hur tycker du de har fungerat? Vilka var bäst resp sämst?
-
  What tools have you used when working digitally with other people? How do you feel that they have worked? How would you compare them?

Ideation tools
Ideation tools
- Känner du till några ideation tools? Om ja, har du använt några av dessa? Hur gick det?
  Do you know of any ideation tools? If yes, did you use any of them, and how did that work?

Digital Ideation (distans-ideation)
Digital Ideation
　　Tycker du det finns skillnader med att komma på ideer online?
　　Do you feel that there is any difference with ideation online ?

Communication over distance
Communication over distance

- Vilka sätt använde ni i grupparbetet för att kommunicera via distans?
  In what ways did you communicate in the group by distance?

Underlättar din skola för dig att göra grupparbeten ? Hur och på vilka sätt?
Does your school facilitate your group work in any way? How?

Appendix C - Thematic analysis

Code	Sub-Theme	Theme
Easier to interact with other when working physically 7

People are nicer in person 10

Lack of physical interaction with others can have negative effects 3, 3, 4

Getting to know people working remotely is more difficult 4,5

People can be more shy when interacting in person with others 4,4

Knowing someone online is different from knowing someone in real life 4

People may communicate differently depending on setting 4

Younger generations don't | Remote social interaction | Social Interaction |

Thematic analysis table first page

feel the need to see the person they talk to 1		
Working with friends can be less efficient 6, 10 Previous relationships doesn't affect work 1 Prefers experience of collaboration with new people 2, 8 Knowing your colleagues makes communication easier 3,5,7,7,8 Being professional is easier with strangers 3,6,10 Working with new people gives new perspectives 4	Experiences of social interaction	Social Interaction
Advantages of using voice in online communication 1 Chat sometimes does not convey full passion about idea 1 Less ideas get missed due to chat use 3 Body language communication is limited working remotely 6 Body language is important for communication 6 , 7	Factors affecting communication	Social Interaction

Thematic analysis table second page

Collaboration harder when working remotely 1,2,7 Understanding technology makes remote work easier 1,2,3,8		33

Physical group work is more fun 6 Adapting to remote work can be hard 6 Technical difficulties can impede remote work 7,7 Focus easier to maintain on location 1, 4 Physical work produces better quality games 1 Discipline gets worse working remotely 1,2,3 Project management can get more difficult remotely 2,3	Challenges	Remote group projects

Thematic analysis table third page

Online communication enables worldwide collaboration 2,5 Interruption less frequent in remote meetings 3 Online documentation is easier than physical documentation 3 Remote work can help with focus 7	Advantages	Remote group projects
Remote work easier in the future 3 The school advices trying collaboration with new people 2 School provided enough help 2,3,4,5,6,7,9 Schools should get more involved in the students projects 10	School	Remote group projects

Thematic analysis table fourth page

Time and energy management gets harder working remotely 1 Logistical advantages of working remote 1,3,4,5,6,7,8,10 Different time zones make scheduling harder 2 Physical meetings are faster 7	Logistics	Remote group projects
Digital ideation tools improves idea clarity 2 Physical ideation tools easier to use 2 Digital ideation tools can be more efficient than physical ones 2,7 Project management tools can help keep projects organized remotely 3 Orbital emulates reality better than zoom 4 Older people may prefer physical tools 2	Ideation tools	Digital ideation and collaboration
Ideation through non-ideation specific tools 5,6,8,9 Using tools/methods for ideation often feels ineffective 1,3 Ideation easier in physical environment 5,8,8,10 Ignore technical limitations in ideation phase 6,7	Ideation process	Digital ideation and collaboration

Thematic analysis table fifth page

Get everyone involved in the ideation process 6,7		

Different competences seen as less important than others in game design groups 2 Splitting up work is more efficient 1,10 Optimal way of working is mix of remote and physical work 1,8 SCRUM is a good framework when working with new people 3 Working remote led to more scheduled meetings 3 Dividing tasks up is better than working on the same thing 8 Prefer multiple people on the same task 9	Collaboration	Digital ideation and collaboration

Thematic analysis table sixth page

Appendix D - Interview transcriptions

Interview 1

Interviewee age: 22
Interviewee gender: Other
Interviewee higher education: Uppsala University
Interviewee educational year: 3rd year student

N = Nikola
F = Fredrik
I = Interviewee

Recording begins

N: Ok, so, um, do you know the concept of ideation, and if you do, can you explain it a bit?

I: Uh, ideation, I'm vaguely familiar with the concept, but not enough to properly describe it

N: Ok, because when we are talking about ideation essentially the only thing we mean here is the process of ideating new ideas, either in a group or

I: Ah, creating new ideas

N: Yes

I: Ok

N Generating new ideas.

I: Got it

N: So, have you worked in a group during your university studies?

I: Uh, yes, yes I have

N: And in these groups, did you work with people you knew before starting the group project?

I: Uhhhh, yes and no

N: So how exactly?

I: Uh, well, uh our class is pretty big so even if so eh, some groups that i worked with some people were not part of my clique so to say

N: mhm.

I: Uh, yeah

N: But you have had experiences working with people that you knew from before and people that you didn't know from before.

I: Yes

N: Ok, and did you think there was a difference between these two different types of groups?

I: Not really, I mean, I'm personally pretty good at separating friends from work stuff so personally that hasn't been a big issue for me

N: Uhm, ok ok, so you didn't feel too much of a difference working with people that you knew before and new people that you didn't know before

I: Not really, no

N: Ok, ok, so, considering there has been a pandemic obviously going on, have you worked through distance, online or physically?

I: Yes, yes both

N: Ok, so you have had experiences of both distance and physical work?

I: Yes

N: Ok, did you uh, find any difference between working on a distance?

I: Uh, yeah, definitely, uh, would you like me to give the differences or is that a following question?

N: Eh, yeah yeah yeah, please go on.

I: Of course, so um, there's some practical differences, you can't really collaborate much when you are working remotely, um, so for example, when you are making games, um, together, you can like walk over to the other person and ask them for help, uh, and you can bring your laptop with you and be like, hey, can you look at this, what do you think? Um, doing that remotely is not as easy but it is pretty easy if you know how to screenshot and

share your screen, eh, but it's still a slightly different experience since the person who is helping you uh, can do it immediately on your own laptop in real life, but like remotely um, you would need to like show the other person how to go through the steps, like for example if something is not working in my engine eh, the person whose engine is responsible, usually the coder would like have to go through the process of what boxes i missed ticking and like no not that box, the next box over eh, there's also a difference in how eh, focused like how, like the mental energy is being like eh spent, I feel like when you are working together in a group, eh, you, eh, you can dedicate your energy to those hours, but when you are working remotely, it's more like you kinda have one stand up meeting, oh by the way, do you know what a stand up is?

F: Yeah yeah, like scrum style

I: Yeah yeah yeah, good

I: So eh, when you are working remotely it kinda becomes the default thing is that you do like a stand up scrum meeting in the beginning of the day and then you like just spread apart into like just like close down the voice call and just go work on your own for the entire day, and in doing so you kind of like start to like um, I mean, some people, it really depends, like some people might really dedicate these hours to like work, but some other people like me who is not as good at dedicating mental time or like mental energy to certain tasks, I like, I, I had like spend the entire day like, eh, I spread out the energy more over the day rather than maybe just one slot of time to do the thing eh, and it depend on person to person, if it works or not but

F: Do you think that like it has affected your performance in groups when you have worked only remotely? Like compared to how you might have done if you had done it in a real environment

I: Ok, so objectively I think it has, like if i look at the games i made in person they are objectively better than the ones i made when working remotely, but I don't feel that I have performed worse when I, eh personally, it depends on how you want to see it i guess, i suppose

F: But you can't see directly in grades for example?

I: Oh, I mean, personally I have not coped with uh, remote stuff, uh, personally, like I need someone who can keep me, eh, or who I can be responsible to, to like pressure me into doing stuff otherwise I can't do anything or like I can do it but like, yeah, its the whole thing, but thats just me personally

F: So do you feel like, perhaps you feel like the element of discipline like, discipline is worse when you are working remotely?

I: Yeah yeah, I think so personally

N: I would agree on that also, do you think there are some advantages of working remotely? Like logistics or such

I: Oh yeah, for sure, um, for example, you don't have to spend time booking a room, you don't have to spend time going to campus like you can work from home and that has its upsides and downsides but um, but I think personally it has been a lot more like a lot nicer for us to be like wake up at a reasonable hour to like being able to decide for ourselves when to do stuff, um, and I think it has been yeah, it has been a nicer experience in general, eh, eh, upsides, lets see here, I went through the booking or like, you don't have to spend time traveling to campus too, eh, and like, you can go to your own kitchen when you want food instead of like the cafeteria or café or whatever so you so like, you save some money on it too i suppose

N: Do you think people take this chance to lazy around since it might be harder to check who is working and who isn't when working remotely?

I: Yeah, for sure, but that's what stand up meetings are for, so that everyone is held accountable

N: Yes, yes of course

I: Yeah, yeah, but i definitely can see that happening, yes

F: So, um, when you do group works generally, eh, what kind of role do you fall into, is it like, a role you always have or does this depend on the group you are in?

I: Sure, so I am, for the record, I study graphics so that means that I do graphics stuff, so that means that I make sprites, I make…

N: Backgrounds?

I: Yes, I make assets, so eh, we usually have um, eh, lets see here, so, I usually become the asset person so when eh, someone has like eh, or when we come up with the concept and the person who is like, make the mock up, i make the assets for the coder to implement it in the engine eh, yeah

N: One thing about the more intangible roles, like is someone taking control of the group, leading the meetings and others

I: I mean, usually eh, its kinda funny because like, there's this kinda stereotype about how coders are kind of like called introverted so they don't naturally kinda take the leadership role, but I define taking the charge, especially in creative ways so I pretty often become the creative director

N: And you think this has varied whether it was online, eh, remotely or on site?

I: eh, yeah, eh, I mean, yeah, I'd say so, lets see here, I'm trying to think cause like thinking three years back is kind of difficult…

N: Of course

I: Eh, so, give me some time to think… so usually eh, what we have been taught is that or, we have been like told to have a product owner, and the person who is assigned to be the product owner usually becomes the creative director by default, and as an artist, my job is to realize the vision of the creative director so that means that some groups that I've been working in have been less about like eh, formal aspect of the thing and then we just do a thing together, like we come to a basic agreement about basic stuff like how the game is supposed to play, what is needed, we make a list of requirements and then we do our best to achieve that list of requirements, but in the beginning, we definitely had like, a more formal kind of like setup where we had like assigned roles.

N: Ok, so that has changed over time

I: Yeah, yeah, I'd say so things have been way less formal but, that might be because we didn't have a lot of time in our courses so that might be less about us working remotely and more about the courses being shorter, like we had…

N: So, how do you prefer working in a group, do you wanna work on site with others or do you like to do it via distance or remotely?

I: Hmm, I see the merits in both ways. I definitely feel like as a producer I feel like working from home where I have more powerful computers is more beneficial to me, however, I definitely feel like the optimal way to do it is a mix and match kind of way, like, okay, so, we work remotely this week and lets meet up next week this day, like, you don't have to meet together physically every single day to work on things, so you can decide on work remotely and then meet up one day a week.

N: Okay… and how do you prefer the process of working? Do you like it when multiple people are working on the same thing or do you prefer splitting the work up?

I: Oh no no, not at all, like if we work on the same thing, then we're just gonna have like too many cooks kind of situation, like version control and all that is gonna be like hell if we all work on like the same thing, that's why in my experience, coders are very communicative to other coders about, ok, hey just so you know, i'm gonna touch this kind of scripts just so don't touch it and the another coder is like, ok, thats cool, i'm working with this script btw, just so you know, as for us artists, it's kind of the same thing like, it's gonna be like, hey btw, i'm making these kind of crates so you don't have to do any crates, and then the other, another artist can be like, ok, thats cool, i'm making a hat so, don't make the hats

N: So dividing the work up is essentially the best way according to you?

I: Oh yeah, for sure for sure

N: Ok, ok, eh, do you think that is just due to being in game design or do you think that it applies to a wider audience if we say it that way?

I: I mean, that's a difficult question

N: Yeah, I understand that

I: Does it apply to other things? Eh, for some reason my mind goes to essay writing for example, when you have like a group project in essay writing uh some people like uh, i know for a fact that in google docs you can write like, multiple people in the same document and we wrote like everything in the same document we didn't like have three separate documents and then came together to then meld them together um, into one super document so that might be some kind of analogy i suppose

N: Yeah, but how did that process look like? Did you do it together or did you just divide it up and each one did their own part even though it was in the same document

I: I suppose we didn't write the same paragraphs together uh, so i suppose in some ways it always sectioned off

N: Ok, so it's sectioned of in some ways and at least you prefer the sectioned of version

I: Yeah, yeah

N: Ok, so uh, would you mind explaining the process, how the process, how the beginning of the process of starting to create a game looks like in a group

I: Um, well, it depends on the group but usually there's like a brainstorming phase where we generate ideas based on the prompt or the challenge we have received from the course, we have been taught several different ways of ideation or idea creation or idea generation and we have also been taught several way of evaluating these ideas however, due to time constraints it's not always as if we have the time to evaluate these ideas and honestly, discussing hypotheticals about an idea turns it into this kinda fractal dialog tree where you like just go far ways down into the…

N: The rabbit hole of the idea

I: Yeah yeah yeah, like ok so, after we have discussed an idea and have decided on the idea, we then make a list of requirements to like define our success that's not a thing that we have done deliberately, but that's just a thing that we have found the most helpful for us, so for example, eh, and that list of requirements usually just becomes an asset list for me personally but that also becomes a list of like features for coders to make or a list of sounds for our sound guy has to find, eh and for me personally it becomes an asset list, like, I need these textures and these sprites, I need these animations and then I have done my work for this project.

N: Ok, ok, eh, next we are gonna ask a bit about tools so, what tools do you use or do you like to use when you work in a group and i mean specifically tools that like enable collaboration obviously I'm not asking about game engines and such

I: Um, so, game engines we have been taught to use unity, that is the uppsala engine to use, however I have seen unreal being used as well, I wish we had been taught unreal but we weren't so whatevs, um, in terms of collaboration we have mostly been using classic csm or sscm I think that it is called which is basically like a github like a git like

N: Yeah yeah yeah, a repertoire or repository where you can work together and

I: yeah, a version control however when that version control is a bit much of a hassle for us we just use google drive as a cloud storage where we, where I basically just dump all the assets and say, hey, this is done put it into the engine and then the coder or the engine responsible can just take the assets from the drive and put it into the game

N: Hm, what about communication tools also?

I: Uh, discord

N: Yeah, okay, good, same

I: Only discord, we tried to use slack at first because it's the right thing to do slack, man no one cares about slack

N: Yeah, no one really does

I: Yeah, I mean, it's a teacher's tool and I get it, every student uses discord so why not just use it, it's not so serious

F: Do you think that discord works well for like simulating a stand up meeting for example?

I: Oh, yeah, yes I definitely think so, the advantage that discord has over slack is that you can voice call over discord and like we have, I have never done a stand up meeting through a chat and I have always done stand up meetings through a voice call and that's something that I realized just now but that is very true, I think that's because eh, like having a voice call still evokes that kind of feel of a conversation even if you don't see the person in front of them, there is a lot that can be done through voice that can't be done through text even if you can't see the person in front of you

N: Yes, so the next thing we also had if we ask about some other kinds of tools eh, do you know about any ideation tools and if you have ever used them in that case?

I: Yeah, uh, like i suppose ideation is like brainstorming or whatever

N: Yeah yeah yeah, like pretty much sticky note boards, like anything where you might have had

I: Yeah, for sure, for sure, we have had, the five hats method which we were taught about very late in our course and then five hats and then yes and is another method where someone might be how about a platformer where you control the wind and then somebody could be like, yes and, and you, and it plays in a bakery, or whatever, and uh, but, let's see here, other than that, I'm trying to think

N: Cause we for example use a thing called metro retro and miro boards, but obviously, we are from SU so they probably don't necessarily use the same

I: Let's see, retro retro?

N: Metro retro

I: Could you describe that

N: It's like, you have a space, it's a program actually or an application and it's basically you have a space where everyone gets to share, like gets to post notes essentially of ideas they come up with and you can save the post it board with all the ideas

F: So it becomes sort of like an interactive huge mindmap

I: Oh, yeah yeah yeah, we use that method to where we wrote up post it notes and put it on a board and then we combine words into like, concepts

N: Yeah, do you remember if there was a program you used for that, or were you just using google drive or something?

I: We used google jamboard for that

N: Ok ok, nice, perfect

F: Do you have some kind of go to method when you are trying to ideate or conceptualize your games

I: I mean, usually when we get the like, because of restrictions the creativity as the saying goes, when you are given a restriction you can get an idea that you want to make and we usually post that idea first because those ideas are usually pretty practical in it's execution eh, so when it comes to, so when we are not given a specific method that we have to use for that specific course or assignment we usually just do not use them because for one part, we are using our tools for the first time right, so it becomes pretty like awkward to use them cause it feels like our restriction doesn't really need, like you have to go through the paces, you have to, no sorry, we are not at the blue hat yet, you have to wait until we get to the blue hat you know, and it becomes a lot, so when we do not have to use a specific tool we don't

do tools that much, i definitely like can see the merit of using the tools, but we don't use them that much

N: Ok, so you are more focused on the methodology rather than the tools that are being used

I: Yeah, i suppose

N: Ok, and the last question, do you think there's a difference, there are differences between generating ideas online contrary to on site?

I: Uh, not practically no because, i mean when it comes to idea creation, everything that can be done basically can be done digitally as well because there are tools for post it notes, there are tools for trello boards or trello board likes and like you can talk to each other even if you are not like physically present and that's like the most important part, because i definitely, i don't think that i would discuss ideation through chat because like not only do i not see the worth of writing down words like, but also because, because you can really and just an anecdote here, at one time there was this one person who was really really passionate about her idea and i think i wouldn't have realized how passionate they were about their idea if i hadn't heard in real voice that she is passionate about it so, like, yeah, that's like the only requirement that i would possibly hold

N: So as long as there's voice, as long as you can actually hear the person like, the thing can be conveyed even though it might be over distance

I: Yeah, for sure

F: I was wondering, do you think that there is some kind of dimension that's lost working remote contrary to working like on location like, you get like a feel for the person in another way or in a group that you know, even though like if you work remote you can hear them, you can mayb see them through a camera some kind of hard to describe dimension gets lost over the internet? Do you feel like that might be something or do you feel like that is kind of irrelevant for this kind of thing?

I: I mean, i definitely feel like there's a certain element that gets lost for sure definitely uh, but i feel like me as a digital native like, i who has grown up in the digital generation uh, i kind of have grown used to working with people over voice calls that older people might not be used to so, to them to older people it might be useful to have camera just to feel like a sense or some kind of face to talk to, but personally i don't need that

F: Ok

N: Well, thank you very much, i think that concludes most of our questions, do you have anything else you would like to add?

I: No i think i'm pretty good, thank you

F: Alright

N: I'll stop the recording now

Interview 2

Interviewee age: 43
Interviewee gender: Man
Interviewee higher education: Uppsala University
Interviewee educational year: 5rd year student

F = Fredrik
N = Nikola
I = Interviewee

F: Alright, so we will start by asking you first of all, the concept of ideation - do you know about it and if so, would you describe what that means for you?

I: Well, I experienced it mostly in my bachelor program here in campus where we had like in every course, every assignment you had to do in a group, eh it was pretty much like that, ideation process is the first process. So like coming up with ideas. What's the concept of the game, you know all the elements

F: Yeah exactly, thats what we also mean when we talk about ideation. The process of coming up with new ideas basically.

F: So if we start then by asking you, did you work in any group work during your studies?

I: Mhm.

F: And did you work with people you knew before, or was it with strangers, or a mix of both?

I: Well, it's been mostly within the courses of the program, so every course had assignment and differently assigned group, so in a way I can say, well if I end up in a group with some of my classmates then I know them, if its from other minors then I cant say that I know them. I mean there was hundreds, many hundreds of students every year so i dont know all the graphics or coders, I was project management minor so I would say like you know, half half or something like that.

F: Do you feel like you have a preference of what you prefer to work with? People you know or people you can get to know?

I: In which way preference?

F: Like when you are going to work in a group, would you prefer to have group work with people you know from before and you know how they work etc, or do you like it when you meet new people and have new acquaintances.

I: Thats actually good question because through all these three years, in the first year i think actually the school was forming the groups which i find OK - from my perspective as a project manager or rather in this agile manner like SCRUM Master or whatever they was teaching us to be, i was kind of you know a servant to the group, so from that perspective i would always like to have new people, just to get into these various situations, awkward situations, hard situations so that i can try to manage it, because that was the purpose of my education. But yeah, lately i think second and third year, they just let us form the groups and what i noticed was that the groups were formed by the friendships, which the school was advicing against but nobody listened and they were forming by friendships so i was always kind of waiting and just to see whats left overs and work that way.

F: So you mentioned your role in the group, so usually when you do the groups do you always like assume for example the group leader position or do you have different preferences depending on how the group is put together…

I: Well it depends from course to course and assignment to assignment, i know in the beginning they try to keep us by the roles in the first year at least and later on, like i said, they just let groups form and you would end up in situation were like everybody was just wanting as much as possible, graphics and coders, those two are the main minors that are required for any game or project to make, so we designers or managers were just left a little bit aside, like you know you would have a situation were a programmer would say "im just forming a team i don't need a project manager, i can be project manager", so in that sense i would accept any role that i can, when it was for like the ggc, the arcade game, i was practically just building the booth for example.

F: Ok. Do you feel like since work has started to become much more online, has that changed how you are viewed in the group?

I: Hmm…im not sure. It could change anything, i mean if theres things to be done then you know each of the members knows what to do, right? I belive that when the groups form that they already kind of decided who is, who can do what, so i belive…in this example, if i wouldnt be needed to build any booth because there wouldn't be any ggc for example, then i wouldn't know what my role would be. That would be different, yeah. In a pure sense like any other project that didn't require any physical you know development, just coding and graphics, i belive that its like uhh…more flexibility i guess.

F: So would you say that you have a preference, if you can choose freely, like for example "yeah id prefer if we can work at a distance" or "id prefer if we can do more of the work on location" for example. Do you have like a preference in that way?

I: Aha ok, uhm..its a little bit strange now that we have a year of having online…well i didn't experience that online situation as much as probably the bachelors students because when

the covid started i was already in the last term of my third year, writing thesis, so i didn't have to go anywhere - i was meeting with my colleague the we were writing together and we would meet regarding the restrictions and we didn't care about much.

F: Ok so you haven't really experienced like a big group work..?

I: Yeah in the first year of master program was actually but then it wasn't, uhm.., there were very few courses that were done in a group, you know assignments, but there was so we didn't…uhm i feel like physical presence is much more important. Just because you are all in the same room and you can probably DO something you know. This way [online] is to much freedom and everybody can do whatever they want it and you know, its less strict…

F: So would you say that you loose some kind of "dimension" when you are online as opposed to when you are meeting someone in real person ?

I: I belive there is a tiny tiny difference where like when you sit in the room and just gonna ask people something like how to do this or that or can you help me or what did you mean by this… i mean, being constantly on zoom and doing and then switch…i mean i belive the physical is more important.

F: Yeah ok. So, you mentioned that you didn't really work much in a group during this last time but if you can remember back to when you have done group works, how would you describe how a process usually looks like for you?

I: You mean online or …?

F: Yeah, you can actually talk about both if you can, otherwise the one which you have most experience with.

I: Ok so i think the last one was actually the physical one, there was three of us. Actually there was two of them and then i joined, it was a game about anxiety and they needed a little bit refreshment with ideation actually, so like uh, we would meet… i don't know how many times per week…we decided like how many times per week we gonna meet and which days, we would meet in the G-building and ehm…we would have like a whiteboard and just drawing and write the ideas and the concepts and uhm..one was good with the coding, the other one was more like graphics and coding, and i was practically just, you know haha some… i don't know, id like to think i was just some kind of glue that were like holding..

F: ok so like the spider in the net kind of ting?

I: I guess, yeah yeah…im really, i cant code and i cant do graphics so that was it. So that was pretty kind of short, that was the last one, before that online was…that was problem of the first year because we had a lot of people from china so there was this time difference. They were in china, they didn't have to come here, so we would set up like a meet time, and it would be…hmm how did it go?.... im not sure if i can remember much details but it would come to you know like a discussion definitely like on zoom and we would discuss about i

don't know, background - it was some kind of 2D platformer - we were doing something about the colors, how can they impact the feeling in the game, what would be the character color, and then we would have like a control level without colors just black and white and then we would introduce different colors and how that influenced players, so…yeah that would be discussion, i would kind of write the concept documents like to have everything we would do it using a google drive, so everybody can participate in the same time and …

F: what other tools would you use to facilitate the work?

I: So like zoom for the visuals, google document for writing, eh there was one, i cant remember the name but it was some kind of canvas like you know software, where you could make like post it papers and write on them you know zoom out, zoom in and it was pretty neat software but i forgot what was the name…

N: Thats probably an ideation tool im guessing

I: Yeah yeah, definitely for the ideation.

F: Do you think like that was a good…that it helped the group in the ideation process to use that kind of digital tool?

I: Uhm yeah…yeah, definitely. Because theres a lot of options like if you want to express like what would the character look like then you would easily pick like download of some pictures or some game you know and then just put them there and everybody could have like you know idea of "aha ok you want it to be like this, but whit this" or you know so yeah, it was helpful. And you could always write whatever you wanted, post it like sticker and…

F: Do you remember any other kind of ideation tools that you have used during you studies, or in your career? We have for example ourselves used something called metro retro sounds something like the one you just described with these kind of digital sticky notes where you can write things collaboratively and map them up like in a mind mapping kind of thing.

I: They must have worked kind of the similar thing. Well no i cant remember, because i think that was used maybe once. It was mostly discussing and writing in the design document.

N: OK, real quick if i may add, you mentioned that you used a whiteboard when you were working physical…

I: Yeah that was like in the G-building down in the basement there was this room and there was aa…

N: yeah cause a whiteboard is also an ideation tool, just a physical one in this case instead of a digital one, so obviously you ideate on it and generate ideas and put them up, make sticky notes.

I: yep, yep.

F: Do you think that like working online with this kind of tool, is there a difference in any way as opposed to a physical whiteboard or anything else, like does it enable something different or does it hinder you in any way…?

I: Well, it can hinder like using software until you learn how to use it and you know, you have to have a will to learn and to use it, while on the whiteboard you just write or draw or whatever you want. Downside of the whiteboard is like the space, and you have to erase something to be able to present something new or keep kind of you know the track of like how the story develops, you know, the idea how it develops from left to right or top down, so maybe thats easier in a software. But me personally, because im not like you know good with the….i mean, i have some basics about using software if i need to but like, im you know i guess…olderschool… so physical is for me kind of easier.

F: So you feel like there is a connection between like that you feel that you are older that you enjoy the physical aspect more than the digital one? Did i understand you correctly?

I: Yeah it could be yeah. It could be like that. Yeah.

F: Ok. So yeah, i think i asked you this before but, like in the group…in what ways did you communicate ?

I: Yeah in distance it is zoom. Sometimes you would use discord. Messenger was definitely used for the chat you know, for the writing, and then there was this one…slack…but in slack if you post something you cant see if anybody saw it so you don't know…the communication was kind of lost and too long…being on messenger you can see that you know its been seen so you kind of, you cant hide from it you know.

F: Yeah, do you have like a preference between these ones if you had to choose one ?

I: I think definitely messenger over slack, slack was something i just got when i started the first year here in this education and on the master program when we got all these other students that didn't come from the game design program they like "what is slack?" and then we were just like using discord mostly.

F: Ok. So actually the final question we have for you right now is - your school, does it or did it facilitate in working in a group in any way both on location and on a distance? Do they help you in some way make it easier for you as students?

I: Ehm, yeah , yeah, they did and in the bachelor programme nobody would be left out you know, everybody would have to be in a part of a group. I remember when being in a small group like three of us and the course leader didn't want us to be like.. i think the minimum was four, and we would have to convince her that we had the concept and you know that the development might go right and yeah this chinese guy was pretty good with graphics so he did lot of job and the programmer did his, so we got like a right to form the group and it went fairly ok for that time and it was a vertical slice i believe.

F: But as far as technical solutions go, do they have anything, any particular way that they enable you in that way?

I: well i don't know about technical solutions, when its in physical form, like what do you mean?

N: Ehm if i can explain this, i think we mean more like did they have opportunities where you could talk with the teachers in case something was wrong and did you think you had enough opportunities of those where you could reach out to the teacher and the teacher could respond within a reasonable time?

I: yea yeah, definitely.

F: Did they have like a portal for example each course where you can communicate with your group members and the other students on your course, your teacher , you know things like that. Forums…

I: well ,like i said, slack was like mainly for all these game design students and each i guess class could make a sub group and have a different channels of communication. What was the official channels was always email with the school and they would communicate with us with emails so thats you know the main and i belive the only actually…eh channel…because they didn't wanna…i mean some of the teachers used slack as well, you know the course responsibles, but the official is like email. We can on slack bla bla , they can post on slack whatever but it has to be send in email as well, like confirmed like, in that way there was a lot of channels of communication but one was official. Even now in master program its just email.

F: Alright, awesome that was all the questions we had, thank you very much !

Interview 3:

Interviewee age: 28
Interviewee gender: Man
Interviewee higher education: Uppsala University
Interviewee educational year: 5th year student

N = Nikola
F = Fredrik
I = Interviewee

F: Alright, so we will start off with the first question then. Have you worked in any group work before during your studies?

I: Yeah, yeah.

F: Did you work with people you knew from before or did you work with strangers or was it a mix of both ?

I: Ehhmm…lets see. I mean, yeah, acquaintances. Friends and acquaintances mostly. I have, i mean at rare times I have jumped into a group working with them without knowing anything about them, but yeah.

F: So you do have some kind of experience of working with strangers if I understood you correctly?

I: Yeah yeah, a few times.

F: So how do you feel the difference was working with people you knew before as opposed to working with strangers?

I: Uhmm…I think the main difference is that if you are working with people you know, you sorf of know boundaries, you can throw jabs at people back and forth, like a lighter atmosphere. If you jump into a group of strangers, theres a part of me that just checks " ok so whats alright, how do I approach them properly, how do you go on with a conversation" and yeah, stuff like that.

F: Do you think that thats something positive or negative according to how groups function, that you have these kinds of recognitions with each other, or that you have to be more formal?

I: Its uhm.. Its easier to be professional if they are strangers. If you are to friendly, you might sidetrack. However, there are pros and cons of both really.

F: Okay. So did you work remotely or only "on site" so to speak?

I: Like during pandemic or ?

F: Yeah exactly or during these last years of studies.

I: Its started on, because this was in Gotland, we were pretty well isolated and we decided that "yeah yeah, we can finish this on site" and then easter happened, and everyone from stockholm decided to visit gotland for easter, and suddenly we had a 100 plus cases, so yeah we started on site and then we moved to remote quite swiftly.

F: Did you find anything that was good by working on remote when you switched over to it ?

I: Well it was easier to get on meetings on time. And the experience was good. Like, I have rarely done similar things before so it was you know, jump into something new - you learn

something and learn how to tackle something new and can be expected to do something similar in the future, so thats always valuable. Then lets see… uhmm… I guess for the specific project that we were working on, heh, it may not have been the best choise (working remote)... well, we had to go remote obviously but we had already set ourselves in what we wanted to make during our project.

F: what were you doing?

I: We were making a couch co-op game which, you know, during a pandemic is not a good thing haha. But yeah, we managed. Somehow.

F: Do you find any difficulties working with it?

I: Well I wouldn't say that testing the project was the hardest thing because most of the time we were doing testing ourselves, like one person, which did not - you know, for a game that is supposed to be multiple people - does not really work that well. It was possible to complete it along with some practice but yeah, testing it was a bit harder in the beginning, yeah so its like project specific. Other difficulties were that you sort of, at least personally, I can go into a state of lethargy if I don't physically interact with people. It like "yeah what do I do… " I do some work, then I just sit there.

F: Ok. So I was gonna ask you then about your role when you do a group work. So, what role do you take when you join a group? Is there a difference in how you act depending on how you work, for example if you do distance work as opposed to on site work, working with friends or strangers…?

I: I would say it depends on exactly what we worked on. So during the pandemic, lets see, I worked on one major project I think during my second year, and during the third year there was a lot of individual work with some group work scattered about as well. If I go with the game project that I worked on, because we used SCRUM agile workflow, I was the product owner, and essentially during previous works before the pandemic I was always the product owner as well because that was sort of supposed to be my role as a design student. So graphics students did other things, programmers did other things, and then the project management students were supposed to be scrum masters.

N: If i can just ask something real quick about agile and the methodology of working through agile. Do you think it works? Or do you think it only works for small scale projects? What is your opinion on it?

I: Uhm..when it works it works well, haha. It is a very good framework for working, if you are a group that just jump into it with new people, then you need to count for some wiggle room on exactly how everyone will adjust to the workflow etc. and get into the roles. If you go into a group that have worked with it before, its [indiscernible]. I would say its a very good framework.

F: Would you say that the group dynamic changes in any way when you are doing it online?

I: Uhm…a bit perhaps. Because its easier to notice when someone wants to say something. Because we always use zoom, and everytime someone speaks there is a small thing at the bottom of the screen, so you can see when someone has something to say then "oh yeah right!" whereas if you are in a group meeting [on site] everyone talks over each other…I tend to be the loudest voice haha.

F: But when you are working on a distance, did you use zoom or did you use anything else?

I: Yes, we use zoom and… well we use zoom for certain weekly meetings sort of, and then we use discord for like quick communication back and forth, throwing ideas at each other etc. We used slack for official communication because the faculty wanted us to use it. Its mainly, in case something happens within the group that is bad, the teachers can check into the slack history because slack is connected to the whole school.

F: Oh, so you are kind of forced to use slack somehow…

I: Its not really…its like, if we want to, well it was at least during the first year and part of the second year that we were [indiscernible] to use slack, but once you got to the end of the second year and into the third year, people knew each other, conflicts were rare so you were allowed to completely ignore slack. We mainly just used slack to keep dates on when we were going to meet up etc.

F: What year were you studying when the pandemic hit?

I: The pandemic hit the second year.

F: Do you think that the working methods changed after the pandemic hit? Like do you think that you would have been working at a distance if you hadn't had the pandemic hit?

I: No. Everything would have been on site. There is, or used to be, the gotland game conference every year in june. That was canceled twice in a row. Our couch co-op game was made specifically for that event, that we wanted to showcase during the gotland game conference, were people you know…they walk around, they see a game, they walk up to it, they test it and then you can test it with three other people, the more fun.

F: Do you think that now that you have been like forced to do the work a couple of years online, even though I guess you originally didn't intend to do it that way, is it something that you think might continue or do you think that you will go back to how you used to work?

I: Yeah, well I have a bit more insight on that because my third year I got a job as a T.A [Teaching Assistant] in the institution for game design and, so yeah I was part of faculty meetings and talking about stuff, and they did… you know in the beginning there was all panic and stuff and everything going to distance work, it was actually the first time they brought in T.As because they needed help organizing the entire thing, but once everything was set they realized that there was some things we can move remotely in the future

permanently or occasionally. Because now people are prepared for it, now there are frameworks in place for remote work.

F: So there is like movements within the school to move towards more…

I: At least there was a year ago.

F: So if you were very shortly describe how a group work did pan out, both pre pandemic and once the pandemic hit.

I: I would say that it was more procrastinating going on after the pandemic hit. You know, everything goes remotely, you sit at home, you think " oh well I don't actually need to wake up in the morning, I can work later". I mean, the mork still got done but I can admit that at least some hours were spent doing something else were I should have been working. And now I completely forgot the question haha.

F: Yeah so the question was basically, how would you describe the changes in how a group workflow would look like pre pandemic and after.

I: The main changes would be that we had scheduled meetups. Because before the pandemic, I mean that group project is probably the best example because it started with a few weeks on site and then we went remote, so before that we just decided…we had a couple of meetings the first week were we set up "ok, where are we going to work" and then we were supposed to show up there every day except if there were you know, you had something else to do or other classes etc. But yeah, it was basically just oh yeah, meetup, everyone working in the same room or at least in the same building close to each other, chat about random things while working, you can check in on what people were doing throughout the day whereas once you went remote, we decided that I think it was two or three times a week we had a proper meeting in the morning where we would go through "ok so this is what ive done, this is what we are gonna do".

F: So, like when you did the work for remote, what kind of tools, mostly for the cooperation part, did you use?

I: Ehm lets see…what was the name of that thing…its a…I don't remember what it was called but it was even more useful during the pandemic, its basically a sticker board of sorts online…cant remember the name of it.

N: Miro? Metro retro?

I: No…

N: Trello?

I: Trello! There it is. We used Trello mainly for…yeah organizing everything. That is what we used. We were told to use something like Trello when we first started in the first year, and

yeah because trello is easy to use people went into that and thats what people used…somewhat…but when you are working together in the same room the entire time you can keep notes lying around, people kept documentations on their laptops and they could just pull out something easily and just show, you know turn the screen to someone else and show it. Thats not really possible when working remotely in the same way, so trello was used even more efficiently.

F: DO you think that it was more an aspect of like people not being educated in how to use Trello, like that it could work even better if it was more familiar with people. Was there always some kind of barrier between using trello as opposed to doing it in real life

I: Yeah I mean its…I would say that I was fortunate enough to go into a very productive group…so there were not really any itches anywhere. Everyone was used to Trello and also almost everyone in the group had previously worked together the year before on the end of year project the first year. Basically the same group…I don't know how it happened that we constantly kept working together..there were a couple of members in and out but a majority of people were still the same.

F: was it a large group ?

I: We were six people I think.

N: If I can just ask quickly about version management, what did you use?

I: We used github, it was mainly the programmers, they focused on github and whenever we added something we usually give them to the programmers for them to put in or we had to notify them before we put something because you know, otherwise they go mad hahah. And discord was the main communication one.

F: So speaking of tools, do you know about any other ideation tools, tools for facilitating ideation work digitally.

I: Hahah, Microsoft word…hahah that is my main ideation tool…thats what I use for everything, and of course Google docs, but Word is superior so…ehhhhmm no but specifically for those things im not sure, well actually I was also in charge of the music so I made the music for the games and I used Noteflight which is an online tool for sheet music.

F: But is it for creating the music itself or some kind of…

I: It is for creating sheet music, not for the music itself, and I used that to remember stuff. But of course FL studio allows you to play around with sounds and tracks etc. very flexible in like..music stuff, especially ideation because then you can play a few things, see how it works and change stuff around etc. Only problem with free FL studio is that you cant actually save projects so…you have one day to create a track.

N: So essentially, when you were brainstorming or coming up with ideas for different projects it was more like using a text editor or something and writing down every suggestion?

I: Yes , that is the way *I* work. I know that there are tools to help with like everything. But the way I work is that I write everything down, go through it, see what things are feasible and what needs rework, things to dismiss outright.

F: But do you feel that there is a difference when doing these kind of things online as opposed to the old school pre pandemic style when people were gathered together in front of a whiteboard.

I: I would say that the way I work, it was easier to get peoples ideas when we were working remotely because if we are talking in discord or in zoom, someone can type out something in chat and its there, its saved. So you don't miss anything, well of course there are always things you miss but less things you miss, whereas if you are 6 people in a room, one is supposed to take notes and people just throwing out ideas like crazy, by the end of the meeting you have forgotten half of it and you don't remember what the notes actually mean whereas on remote you sit on discord, you type out things, people talk it gets reinforced in their heads.

F: Ok so if I catch you correctly you think that since its online things can get saved and things that is said and done can be documented in a better way?

I: Well, easier way. At least for me, it was positive.

F: Your school, did it help or facilitate in any way for your group works during this time?
I: Well, during the second year you are supposed to have your end of the year project, and they made sure that there were facilities that we could use, a classroom or something that would be specifically for us, we just had to tell them that yeah, we want that room and it was given to us. And then everything went remote but technically the room was still available in case we wanted to meet up, which we did a couple of times to not go insane haha…other than that, we were given school accounts for zoom so we didn't have to pay anything for good features…I myself had teacher access to a lot of things during the third year so that was even better. But no, they gave zoom mainly, they had in the third year the teachers were prepared now, they knew which software to recommend, they could point at us third years and say "eh yeah, ask them how well that work went and they can give you recommendations" And then there was also just, we were four T.As always available which at the start we also were there to recommend things and how to work remotely.

N: Just one last thing, did the school have any forums or ways to assist you in finding groups if you didn't know who you wanted to work with?

I: First years are always put into a group by the teachers. Its selected sort of at random based on what you specialize in. Second years have it be…its essentially that they say yeah…some projects they say yeah random groups, other projects its choose your group. And then they basically say everyone who has not found a group tell us at the end of the

week and we will help you. And usually they are put into groups which dont have enough people of certain disciplines or …but usually people found the groups.

F: OK that was all thank you for your time!

Interview 4

Interviewee age: 24
Interviewee gender: Female
Interviewee higher education: Chalmers University
Interviewee educational year: 3rd year student

F = Fredrik
N = Nikola
I = Interviewee

N: So, have you worked any group work during your studies?

I: Yes

N: And in these group works, did you know the people you were working with from before?

I: Uhm, not when i began master studies but, throughout the masters i got to know them a bit more and then more group work situations came up later so then i did know them but, my program is kind of, it conjoined with another one from Chalmers so a lot of collaboration between the two so there are times when i don't know some of the people in the group

N: So you had experiences of working with people you knew from before and new people that you didn't know and did you think there was a difference with working with people you knew and people you didn't know, for better or worse? the difference between the two?

I: Sometimes, having new people meant new ways of thinking, a different way of looking at things because often in this program it's a lot of different people from different parts of the world, so all of the world basically, so you have like their own experiences and what they have learned in their bachelor which is different from what they are studying now in this master, so they bring a lot of different ideas that you wouldn't really think of before, and the people i know before, they also, they basically have the kind of background from different areas, some are from computer science, some from engineering and then they suddenly study game design so, and they are all like pretty different from different parts of the world as well so, it's pretty even between knowing and not knowing

N: Ok ok, so, did you work uh, remotely or on site in most of the projects or do you have experiences on both?

I: eh, both, i mean, as we know, covid has been around for the last couple of years so, everything was online for most of my masters, only now in this last year has there been more on campus, but then a lot of the group work was done online anyways because a lot of people are stuck in their own countries not able to actually get the visas and stuff to actually come to Sweden and finish their studies, so they have been kept online basically

N: Ok ok, and what do you think the differences were between working like online or remotely?

I: Online is a lot more freedom of when people can meet up because they are more comfortable and you can just throw up a laptop and join the meeting or throw up a phone and join the meeting from wherever you are so there is more freedom in that respect but, it's more difficult to get to know people because there is reactions and body language that you can't always see on camera that you can in real life and you can get a real feel for a person in person than online but, there are situations that you can get to know people through the screen but its not as easy

N: Yeah, which way would you say you prefer working? online or remotely, online or on site?

I: If it's more convenient for the project that's currently being doing then online, but otherwise i would prefer in person

N: Ok ok, so, it depends on the project, but on site is the preferred option

I: Yeah

N: Ok, eh, now the next question is gonna be about roles in groups, which role do you usually take in the group or do you have in the group?

I: Usually from a more design perspective and from a programming side uh, others in group projects the past two years have been from a more interaction design perspective more UX, user experience, there's always different sides to things but i usually come from a design and program perspective

N: Ok ok, and uh, do you think that there's a difference in how you act online vs on site, or maybe the group dynamic changes when it's online vs on site?

I: Yes, definitely because if, i know for a fact that when we were in a project that was online basically almost the whole time and then when we came in person for one of the workshops that happened on campus it was like a real weird vibe between everyone because we knew each other joked and stuff online, but then meeting in person was different because you could actually feel the person's energy or something that you can't feel through the screen so it took us a little while to get used to each other but then we were fine again but, it's just a different energy between seeing someone on screen and then there's actually in person

F: Do you think that affects the group work in any way?

I: Definitely, because you can have a very different reaction from people that are online, so maybe online they are more comfortable, more relaxed but then in person they shy away and don't want to talk and don't open up so that can decrease the amount of ideation creation methods, or whatever you are doing, yeah

F: So if you would like speculate on how you prefer to work in a like a work setting away from school, how would you imagine that?

I: Well, i don't have to imagine that, from my thesis i'm working with a company so i'm basically at their premises most of the time and there, they do have online meeting and they have in person meetings and i found there that when we were all in person there's a lot more work being done, when it's online there's distractions from pets and kids and everything else that goes on in your life when you're home, but when you're at work, all of that life matters usually stay out of the ways so you can focus on the work you are trying to do

N: Just also a quick thing that i want to ask before we move on, it was the question about, you talked about some sort of energy that gets conveyed basically, that you can feel when you're physically close to each other but maybe doesn't get conveyed online, do you think that is a big difference like, even if you're talking and maybe even have camera on and can see each other there is this sort of dimension that gets lost on the remote side of working?

I: Yeah definitely uh, if you think about how humans react, we react very differently in person to people and we can feel their energy and thats why during covid there was a lot of people getting depressed and there was some suicide and stuff like that and some friends of mine actually committed suicide as well so, there's this energy that you're missing when you're not in person and like, i don't know how else to explain it but it's like a very human reaction to want to be someone, near someone even if you feel that you don't want to, just having a presence of somebody else, that's why pets are pretty common when you are alone or lonely they, you tend to want to have a pet or something cause there's some other energy around you, some other life, yeah

N: Absolutely absolutely, so if we move on then uh, how would you describe the process of starting to create a game or just create a project in a group environment, how does that process look like?

I: So, in like some programs and stuff that i've been in um, for my bachelor we kinda just got assigned and then after that we got to choose groups and we usually tried to find someone of a different expertise, so we would find some artists, we would find some programmers we would find a manager, we would find a designer so we would find all these different aspects to help with the game development cause if we're all programmers we're missing out on some like, animation work or art work that we can't really about, and also managers, managers are very important but, in the masters there was more freedom, so we got to actually talk in virtual rooms with other people and we formed like little groups, i can't remember the platform we used but, basically you could walk around on this page and form little circles and once you've joined the circle then you can actually chat to each other so that like makes a little thing and other people can join in this conversation and move away from the conversation as they please, and there we just like talked about what kind of games people would like to make, what they're interested in, what kind of backgrounds they have and then we try to form groups based on mutual interests and mutual like respect for our expertise in different fields

N: So so you basically got together a proper team where you had all the expertises that would essentially be needed to be, to make a project in that case?

I: Yeah

N: Ok ok, and uh, in these projects, so, what tools did you use for collaboration like, which tools did you communicate with, maybe github or like other stuff or, version handling, management

I: Uh, yeah, we've used, we used github mainly, there's gitlab as well, we have like covered that version with gitlab with, through Chalmers so, we get like the full free packages, everything through that platform so like, a lot of people like to use that on, even the teachers like to use that as well, then we use a slack art, we use discord as well, we mainly used zoom for meetings like, proper meetings but uh, we'd have like a, like general chat as well if we're on discord we have different chat rooms, one for meetings, one for general, one for just you know, messing around so we can you know, send each other memes and get to know each other in a way that isn't conveyed just working with someone

N: Yes yes, uh, i'm sorry if i zoned out a bit, did you use any google drive or any tool for basically shared workplace where you could share all the documents, cause like i guess github is the example of that as in version management, but maybe if you had files or needed some documents, i mean, i guess that could also be on github actually

I: We used google, google drive, there we shared like docs like quick, ideation something we would pull up a google doc that shared everyone very quickly, you can share documents on word but it's just a lot easier on google and a lot of people have google accounts and actually with my university we have collaboration with google so we have all of those accounts already set up for us, so there's quite a few gigs we can use just on that side so it's just easy to just share files like that

N: Yes, and the documents and the stuff you shared, were they like idea plans and ideas that had been created or? So basically also like, the ideas that you ideated you maybe obviously wrote down on the document and that's kind of the thing that were there

I: Yeah, and we also used figma and miro as well

N: Ok, perfect, thank you so much cause yeah, we are going to ask about ideation tools also so this is great to know, about ideation, ideating remotely, do you think that there's a difference between the ideas that come up remotely and physically cause, you did mention that you feel that people can be a bit more shy and not necessarily share the ideas that they might have been able to share remotely

I: Yeah

N: Do you think there's any other differences?

I: I guess what you find as a creative environment, if you feel your home is a more creative environment, you come up with ideas more easily than that way you can come up with more ideas, maybe in that environment you have like figures or something, statues that you can look at and draw inspiration from, whereas if you're at the school there are just desks and a whiteboard, so maybe like it's not a very inspiring environment

N: Yeah, so it depends a bit on environment and from person to person also depending on where they might feel they are most comfortable?

I: Yeah, exactly

N: Ok ok, so, i mean, the last question then, this interview actually went by so fast jesus, the last question then is gonna be, do you feel that your school helps or facilitates you into working in a group and how in that case?

I: You mean like how they helped you work into a group?

N: Well, essentially, did they help you maybe find a group, did they give you forums like, you talked a bit about the drive which is obviously a great benefit of being able to share big amounts of data on the drive so essentially all the things that the school essentially has done or tried to do to help you, enable you to work like remotely

I: Yeah, there was also one of our teachers gave us a VR virtual room that you can join from the pc and from your like headsets or something that you might have lying around so you could like meet them in like a virtual room and like see body movements and stuff so it felt like as if you were with the person even though you weren't, so they gave us like different kinds of platforms to like, find each other and talk to each other, they tried to open up communication between all of us, and in zoom rooms when we were like doing some workshops and stuff then they would like to, they randomized our groups a lot so that we get to know more people and i think like, if we're in a classroom setting people were like, oh i know you and just grab you and like stay, whereas in a virtual room the teacher can force you to be with somebody else basically.

N: mhm, absolutely, but yeah so the ways, cause, i'm guessing you put up the groups together, you could decide which people you wanted to be in a group with but do you know if the teachers maybe paired up students who didn't find a group?

I: Yes, so if they, you didn't find a group you'd talk to the teacher and they would discuss with you what kind of ideas and stuff that you liked or are interested in and then they talk to the groups and are like, hey there's a person who is very interested in this idea and i heard some chatter around that there was a group looking for someone for this or something and then they would try to get in contact with them

N: mhm, and, do you think that maybe if you didn't feel comfortable or didn't know something that you had easy access to the teacher, contacting them whether through mail or getting a zoom meeting with them where he could help you?

I: Yes, and a lot of the teachers are on our shared slack space, the work spaces so it was easier to get ahold of them and quickly chat them on, like hey, i need group or hey, i need help with this or that

N: Ok, Fredrik do you have anything to add? any more questions that you'd like?

F: No, not really, i was just wondering, you mentioned like the tool you had where you could move around freely and like talk to people in you vicinity, did you use it a lot or just, i didn't really catch what you said there

I: Yes, we used that in quite a few different programs or courses basically and the teachers would set that up for us and we would just join that virtual space, i don't remember the link or the name of the space but, yes we joined and then we can like, we were on the screen and join different groups and talk to people and then the teachers would pop by and join our little group and say like , hey, what's up

F: How would you say like that worked as opposed to like regular zoom breakout rooms or?

I: I think, with that space it was easier to see like, different groups and if you see someone you know that you're interested in working with you can just join their group, whereas on zoom you can't really, well actually you can see where people are but it's a bit more awkward to just join somebody else's breakout room, instead of like, casually sliding up to this group where, group circle where they can see you coming basically, they see you floating around and maybe like, exit the group talk and get you into the group, there's more like, you can see they're on, kind of like if you're in person you can see someone like hovering you or your group interested in what you know and then you can just like call them over like, hey come

N: Well, great then i think, that was all the questions from us, thank you so much for joining, do you have anything wanted to add or maybe feel like you didn't get to say?

I: No, i feel like i covered everything

N: Ok ok, well, thank you very much then and i'm gonna stop the recording now

Interview 5

Interviewee age: 22
Interviewee gender: Female
Interviewee higher education: Högskolan i Skövde
Interviewee educational year: 4th year student

N = Nikola
F = Fredrik
I = Interviewee

N: Have you worked with any group work during your studies?

I: Yes.

N: Was it with people you knew before you built the group?

I: No.

N: OK. So you worked with people you didn't know?

I: Yeah.

N: So how did that feel? Do you think it would have been nicer or easier to work with people you knew from before?

I: It went well, we started to learn to know each other during the work so it went well.

N: Did you stick with that group afterwards ?

I: Yes a little bit but only a few of us stayed.

N: OK, so did you work remotely or on site?

I: One group was on site and one was remote, cause i worked with two different groups.

N: What do you feel the main differences were between these two ways?

I: In some ways it was easier to talk to some of the special sound designers and stuff cause they were always on a different place, but when you were on remote they were on discord so you could easier get access to them, but like you cant use paper when you are working remotely so you have to use like Paint and stuff to show your ideas.

N: So which role in a group do you usually take?

I: Designer, so a leader i guess.

N: Ah so also a leadership role, like getting the group together and making sure everyone is on the same page maybe?
I: Mhm, a bit , yes, like I usually don't take any official leader roles but it usually turns out to be a leader role anyways cause you know you have to see that everyone knows what they are doing and stuff like that.

F: Would you say that there is a difference depending on how the work is carried out, like if you do work through zoom or any other distance work, does that change how you act in the group or your role in the group, as opposed to when you are working in a physical location face to face with other people?

I: Hmm..not really.

F: OK.

N: So how do you prefer working? Physical or remotely?

I: Hmm..remotely works really well actually…so I think I prefer that but its also hard to tell because we were also more used to making games the second time than the first time, but uhm yeah I think it has some good sides and some bad sides both of them.

F: Do you think you can elaborate on what those good sides and bad sides are?

I: Yeah. Like remotely you can…its easier to like look at the same screen cause you can screen share instead of you know trying to sit a bunch of people looking at the same screen. Its easier to find people that have to like…have their work equipment, like sound designers and music designers, cause they are usually not in the same room. You cant really see each other if you dont have camera on, and yeah you have to use paint instead of paper sketches so it can take a bit of…or like take pictures of sketches so its not as easy to draw at the same time as talking.

N: But do you think that the physical aspect is important, adds some kind of value that maybe cant be seen through remote work?

I: Yeah…and also you can like learn to know each other easier, when you are not working you can just start talking to each other while you are often working and you log off from discord or whatever you are using. I think it went really well with our group remotely cause we were hanging out before, like after work days and stuff, we were actually hanging out trying to get to know each other, so i think thats why it went well.

N: Ok. So would you like to describe the process of how beginning to create a game looks like in a group usually?

I: The groups i've been working with had like an idea already so we started with the…both of the games were puzzles but they have like story elements so we started to do a story line and see what puzzles could fit in to the story, and also started to decide what the character should be able to do, so the programmers could start programming.

N: So you put out requirements first essentially so that everyone could get to work and work within their separate fields?
I: Yeah.

N: So what tools did you use for cooperating, maybe for talking with each other and shared workspace and others?

I: Ehm…discord was what we used to talk to each other and share screens, and we used some form of github or something like that to share the actual game with each other so that we could actually work on it. And then google drive with a lot of shared documents and stuff like that.

N: Ok. The next question is about ideation tools, tools or programs used to create ideas. Did you use any of those, maybe like brainstorming thingy or anything for that matter?

I: No…no we didn't.

F: Do you know about any such programs, or heard about it?

I:Uhm nope.

N: So in that case, when you were creating ideas were you just writing on a google docs document? Or how did you create ideas?

I: Yeah writing on paper, google docs or just paint when you want to show stuff, if you wanted to show how you wanted a menu to look like or something like that. Also googling pictures of different games or other stuff you wanted to…maybe something looking quite like a picture in google.

F: How would you say that it worked out using that way of working? Was it sufficient enough or do you think that you might have been helped by more "sophisticated" kind of software?

I: Hmm…I think it worked well enough…it was quite good communication and the game turned out well…so I guess it worked out well haha.

N: Did you use any like post-it, like sticky notes or stuff like that, or have you used them in any way? Or maybe just writing ideas on a whiteboard.

I: We did, when we worked in a physical room, we did work on a whiteboard writing up ideas and stuff like that.

N: Ok, so do you feel there is any difference with ideas that get created remotely compared to ideas that get created while you are physically close to each other?

I: Hmm…I guess the difference is that you don't really see each other, you cant like when you are creating it you are usually just with like the designers and story writers, and if someone can not really walk by and give you some ideas you have to like actually look them up to ask other people what they think.

N: So there is a difference?

I: Yeah.

N: In that you cant see how people react or how they are towards an idea.. or what would you say the difference is?

I: Yeah you cant really see what people think about your idea, you have to wait until they say something and if they don't say anything you just have to take it as they agree with you.

N: OK. So about communication over distance…you said that you used discord, but have you used any other tools like zoom or slack or anything that can come to mind?

I: Well a lot of zoom to talk to the teachers.

N: Ok, but you prefered discord over zoom at least for the group projects?

I: Yeah.

N: Does the the school facilitate the work in any way, do they make it easier for you to work in a group or work remotely?

I: Well they…I think they helped us a bit with like ideas and how to work remotely, they did like tell us about planning tools and that we should get to know each other, play games online and stuff like that, and they also had like one person that we could contact and talk to, like a teacher - that really helped.

N: Do you feel like that teacher was answering in time and was on hand often?

I: Yeah. I think we had planned meetings as well and they could also work as to see what people thought and we can take up problems in the group if there was any.

N: I heard you say planning tools…what were these planning tools?

I: They took up trello and some others…I don't think we used them…sadly haha.

N: Do you think that there could have been anything the school could have done to help you in a better way possibly? Was there anything lacking that they could have done better?

I: Uhm…for our group it went really well but I knew that some other groups had some problems with motivation and collaboration and stuff…don't know really if the school could have like helped them in any way. For our group it worked really well. But we also met physically, some of us, and just made some ice cream together to get to know each other, so I think that worked really well.

N: Thank you so much, that was the last question!

Interview 6

F = Fredrik
N = Nikola
I = Interviewee

F: Alright, so, our first question is, have you ever worked in a group work before during your studies?

I: Yes

F: Did you work with people you knew or people did now know or people from both ways so to speak?

I: Well, both ways

F: Mhm, so, if you were like to compare how you worked, is there any way you prefer to work or is there any way to work better for you, worse or?

I: Well, i do enjoy trying out new people or new teammates, and a good way is to not really choose to work with your friends in order to see because it, working with your friends isn't always the best way forward, but yeah, i've had very mixed feelings in well, regarding both sorts of teammates really

F: Mhm

I: Yeah

F: But is there any specific reason why you think that it's not always good to work with people you know?

I: Sometimes they are crap, great people but awful workers you know

F: Yeah

I: Working with them can be fun but it can also be devastating to the project itself

F: Ok

I: I sound harsh but, I'm trying to stay true as well

F: Yeah yeah, we want only true answers, so, did you work on remotely or on site so to speak usually?

I: Well, remotely almost only remotely since i started studying and

F: But

I: Yeah

F: Did you start studying lets see, was it after corona hit or before?

I: It was kinda in the middle of it all, well, it had its initial hit and then things started to look a bit more brighter meaning that we were able to well, have some stuff on site but, yeah, it's

only been a couple of weeks where i've had some sort of well, push from, from the teachers to go to school and study there, yeah

F: Did you like, have you studied anything else on some other university before you had like, experience of working non remotely?

I: Well, i, i, no, i haven't studied previously, but i have worked in larger project groups outside of school previously

F: And, like, did you find any how do you say, advantages of working remotely?

I: Yeah, i found a couple i guess, it's very convenient, it's easy to plan your own time, stuff like that, and i mean I've grown quite used to it, but i do still prefer to work on site with the, my group fellas

F: Alright, did you find any like problems or difficulties with working remotely?

I: Yeah, well i really do enjoy using body language as a tool when communicating, that's something that i have lacked throughout these years

F: Ok

I: Yeah

F: So did you like, have you been mostly working like on discord without video and etc or?

I: Yeah i, i should have purchased a webcam quite long ago, when you go back and think about how much time i've spent at the computer without showing my face as i am in this call as well, but yeah, i usually sit quite anonymous and that's not really me

F: Yeah

I: Yeah

F: Yeah yeah, actually i had the thing, i've only bought my webcam for like one year ago, so i did like the first year remote without the webcam also so yeah, i can relate to that, so, we wanted to ask a little bit about roles in groups, so like when you work in a group work, what kind of role in the group do you usually take like in a group dynamic if you have a special role you always find or is it different depending on if it's remote versus on site, do you understand the question?

I: Yeah i do,well i would probably say that i usually take the same role depending on that factor, you know, whether it's on site or it's remote, but i would dare to say that my role depends more on what type of work we are performing, if it's something that i really like i try to take some sort of leading role where i get to well have some insight into what others are doing since i have this really really bad control need, but in courses or projects that don't

matter that much to me i usually, i tend to just let people do what they want to do really without trying to micromanage too much, and i know that the control behavior that i have isn't the best thing to have in a group where it's not needed, but in projects where people are bad at finding own things to do it can be quite useful

F: So you mentioned that like, for you yourself it doesn't really matter how the group work gets done according to your role, but have you like felt that you found it affected the group or other group members in any way how you worked, like if it was for example easier for some people to work when you are together on site or easier for some other people perhaps to work on distance?

I: Well, i have seen both sides, i've seen a lot of people really flourishing as soon as we have met on site and worked there, but i can also see some people leaving school at 12 because they simply can't get anything done while being in school so i can't really give you definite response to that because yeah, i have seen them both really

F: Alright, so, if you were like, had to prefer one way, i think you already answered this but do you have a preferred way of working?

I: Yeah, well, i really do like working on site, it's what i did for years before i started studying and it's, i just think it's a lot of fun to meet your colleagues and friends, yeah you know, be able to hang out

F: Yeah

I: It's easier to discuss things in person

F: Do you like, prefer working like close schedule, like very strict schedule where everyone has exactly like, times when they should do this or that, or do you like it to be more loosely put together and like

I: I mean i, i like to see performance, i don't really care about time, it's kind of the same thing at work for me where i, now that i work on an hourly basis i'm pretty good at keeping my hours intact, but at my employer, where i still work, it's always been very loosely well, set up and that has been very beneficial and i could definitely see them gaining from people staying happy due to that fact and yeah, i, so yeah, quick answer to that question is no, strict schedules aren't good

F: Alright, awesome, so, if you were like to quickly describe the process when you begin to create a game, how does it look like, do you have a default look of a group work, how it usually goes

I: Yeah, well i mean, we haven't had that many courses where we have worked as a large group yet, this is our second, but i could try to just quickly describe what we did this time, well i mean, the major things of course are getting github up, unity project, but it all depends on what kind of game you want to do, in this course we worked for almost two weeks on just

designing the game idea and what we usually want to do is to just make sure that everyone in the group, as long as we are in school we try to make sure that everyone gets to have they saying before we make any decisions on what to create right, so yeah, we work on the game idea without even taking any sort of technical limitations into consideration, we want to dream, and then we scale down a bunch, a shitload

N: If i could ask real quick, how exactly does the process of creating an idea look like, do you open a document and write all the ideas that anyone has ever said or, how do you get to the ideas?

I: I know that some groups want to make use of post it notes and everyone just types down cool things that they would like to have in the game, but we started off with just describing a theme or rather feeling or, i started talking about other games that i would like our game to replicate and i started mentioning games as wrath and valheim, i really like the whole freedom and sandbox feeling when playing games, last night i just played factorio and it's the same thing, just me having full control of everything around me and i can take things in my own pace and i can switch it up whenever i want to, and that's kinda what i wanted to try and build as well, a game where you have to gather resources to survive or make it to the end and people were like, well that sounds pretty cool, what do we need for that, and then we started talking about stuff like, ok, well combat is pretty cool to have in this sort of game, ok, experience then, nice, but what will experience lead to, some sort of universal stat buff or upgraded items, you know, and then you get the whole conversation going, as soon as you have the theme or have something to provide the others in terms of inspiration it's quite easy to have these short games that we actually are creating, we're only working on them for seven weeks so, yeah

F: Was all of these discussions, were they like, in school on location or did you sit remotely

I: Yeah, we did this on site actually

F: Right right, so you didn't have any kind of software or tool to make it easier for you to ideate and come up with the ideas

I: No

F: No, just discuss the ideas

I: No, just the good old mouths and ears

N: And i was wondering, where do you write down these ideas, like, was it just a document, google document or

I: Yeah, i think we just typed them down in the trello board really

F: Ok, so you have a, you use trello to like organize your group work

I: Yeah, definitely, yeah, since we have people working on, in different roles such as, we have a 2d designer, we have two 3d designers, we have a game designer, and four programmers in our team, and in order for us to be able to work together on stuff it's quite useful to have some sort of well, board, or some other thing to keep it organized and just communicate through it as well

F: And how did that work out for your group with using trello, was it helpful or was it something that you like, mandatory from the course or

I: Yeah, it's quite mandatory, but i actually got it up without seeing that it was mandatory, i have used favro myself in my line of work previously and you know, it's just very nice, it's a must have for me to have in a larger project group

N: So do you like trello more than favro

I: No, no, favro costs money so i don't wanna buy it

N: Ok

I: Not for school projects at least

F: Alright, do you know about like, any specific ideation tools that you can use to like, enhance the ideation process

I: Well, miro is pretty decent i guess

N: Yes, miro boards

I: I haven't used it myself too much, it's more of a habit thing, i haven't used it yet meaning that i am pretty bad at trying out new stuff without being forced, so, but, nothing more than that really

F: If you would like to ok, so, you said that you haven't really used it, but if you were kinda thinking conceptually then, doing an ideation online with for example miro or some other tool as opposed to doing it on location with your colleagues or your group friends, do you see that there is one way that is better or is there a difference between them in any way?

I: Yeah, i mean, of course there's a difference, but i would like to like, bring in the social impact here, when discussing things like these on discord or over zoom or whatever it's very easy for people who i don't know, who are a bit shy to get into the conversation and for me it's very difficult to see them as well and to make sure that everyone gets involved since i mean, it's just not me building this game for two months, it's all of us and if i see the person sitting there quiet for hours up on hours, i will make sure that the person at least gets the chance to say something, that's what i'm quite used to, but on discord without having the face in front of me, because i get carried away, you feel me, and, yeah, having their presence there definitely helps me, sorry, i'm just gonna fill my water bottle, two seconds

F: No problem

N: Absolutely

I: Alright, i'm back

F: Awesome, so, we have actually only one question left for you, and it's regarding the school and how they, do you feel that they facilitate your group work in any way, like, they help you to achieve the group work in a better way

I: Yeah, definitely, i actually find it almost a bit too much, so, no but, the good thing about this is that we had playtests of our game two days after we got started on the project, and the idea was for us to have build the whole game in two days, and we of course freaked out a little bit, but the whole intention is to build the things in a really crappy manner just to see that things work, and you can immediately delete things that you don't need and you can immediately delete things that you won't be able to fulfill until deadlines, and the teachers are in school all the time, we're sitting in the gamelab and they're very helpful, and they walk around, and they almost get a bit intrusive, and i think that's quite needed because we're adults and some of us want to, you know, try and really make sure that they really can handle it themselves, including myself, i'm pretty bad at asking for help unless i really need it because i'm, i wanna see if i can you know, you know, get it done myself, so yeah,

N: So you don't necessarily feel like there's anything more that the teachers need to do or could do, you feel like they do more than enough for you in that respect

I: I don't know, not really, really really cool with booking a lot of cool guests to come to lecture here, they are really good at different things so you kinda immediately learn who you can ask regarding a certain type of question or whether it's technical, or design question so they, i think that they have a pretty cool crew set up for the courses that we have in these settings

N: Ok, absolutely, well, thank you then, that was the last question, do you have anything to add Fredrik

F: No, you can actually end the recording if the interviewee doesn't have anything to add

I: I'm good

Interview 7

Interviewee age: 32

N = Nikola
F = Fredrik
I = Interviewee

F: The first q we have for you is, did you work in any group work during your studies.

I: Yeah, many times

F: Did you work with people you knew before or with people you did not know

I: Before school you mean or before the project?

F: The project basically, like was it with strangers or with people you were acquainted to?

I: I would say some of the times yes, and in all of the group projects I think Ive known someone, but most of the time new people as well.

F: Ok. What did you think the difference was between those two?

I: Specifically working not on site, online, or just in group projects in general?

F: Yeah just in general projects, like working with people you don't know as opposed to people you do know.

I: I mean its always a challenge i think, when i have to work with people i don't know, in the beginning before we dont know eachother and have to get to know each other, especially when you think about school assignments, the deadlines are always so short, and you have to start working immediately basically and you dont know eachother, I always find that a little bit challenging yeah.

F: So do you prefer it any special way, for example working with people you already know?

I: Yeah, but its not always gonna be like that so i think i prefer like, if I don't know the people i think i prefer if there is a way for us to get to know each other before starting working, whatever that is even if its just a simple presentation round.

F: Do you think that there is a difference in that first stage of getting to know each other when you are working on location instead of on a zoom meeting or discord or something?
I: If there is a difference in getting to know each other?

F: Yeah, does the process , like is it helped by actually meeting for real so to speak?

I: Yeah i think so, i mean the reason for that is partly because there is always technical issues with being online, you might not …the sound may break up or someone gets thrown out or the mic isn't working, stuff like that is just an annoying hinderance to get to know each other, and we also had the thing with actually seeing each other is a big difference i think, makes a big difference in reacting and seeing how people react to what your saying and all that, it helps alot with getting to know each other, and some people are not comfortable with using the webcameras, when doing groupwork online and I think that also makes it more complicated compared to meeting up in person.

F: Do you find any pros with working remotely?

I: Yeah for sure, i mean its easy to adapt when maybe someone can not come in, maybe they are sick but they still have the energy to work but they just cant come in to the office or the school or whatever, and then its great that you actually can continue working, so stuff like that i think is the main pro thing.

F: So with scheduling meetings and those kind of things, gets easier when its remotely as opposed to on location.

I: Yeah exactly, theres a lot more flexibility in that. And also avoiding travel time.

F: So, I think you already mentioned this a little bit, but any special problems or difficulties that you find working on a distance?

I: Yeah, so the main two things for me are the technical difficulties that comes with that, everybody has different equipment, sound quality, ISP, stuff like that, always hinderance in some way. And then also not seeing each other, so if some people are not using webcameras, its a very different social interaction compared to seeing each other.

F: Right. So when you are working in a group, what role do you usually take in a group? Is it like different in any way depending on how the work is carried out, if its on site or remote ? Do you think the dynamic changes in any way?

I: For me?

F: Yeah

I: I don't know…maybe…i think i always have a tendency to reach for some kind of leadership role..ofc it depends on the team. If there is someone else who is also good at that stuff, and who wants to do it, then i might like back down but, usually i do that and i think that even online many people have more difficulties with interacting and i think that it might even have been easier for me in online groups to take on that role because some people are not comfortable with that.

F: Ok, so you find it a little bit easier to be a leader in an online group?

I: I wouldn't say that its easier, it might be easier to take on that role but i wouldn't say that its easier to actually do it when the work is started.

F: Ah ok. So if you can chose the way you prefer working, what would it be?

I: If i have to chose…i would say in person.

F: And what would be the main reasons for that?

I: Just that it gets so much easier to get the social interaction and to have quick meetings and to help each other out and stuff. It really depends on what the situation is with the online as well. If its very structured team and everybody has good equipment and everybody is available online, then that might work just as fine as on location.

N: I was just gonna ask if the physical aspect of meeting in person, because obviously you can see each other through camera but just physically being with someone, is there a difference between seeing them in person rather than through the camera?

I: I mean i think the camera works kind of …its almost the same when everything is working but there is the issue of image and sound quality, and also when you are speaking to someone you actually look them in the eye and that doesn't really happen with the webcamera. So i think that is a difference as well.

N: So something does get lost…

I: Yeah, exactly.

F: Have you noticed any performance, like how your performance is affected by you working remotely? Does this change how the group performs for you? Can you see it like for example in grades or how you feel that the work turns out?

I: Hmm…its so hard, i mean its so dependent on the situation. Because sometimes it can be good and it makes the team more focused as well, being online. I started online when i started studying and i think that was really good for me for my focus at least.

F: So you are on the first year, so your whole education, has it been mostly online since i guess its like in pandemic times?

I: Yeah i just recently just this spring time started going back to school.

F: OK. So would you describe the process of then you are in a group work and creating a game for example, how does it usually pan out from beginning to end, in a short description. Its kind of a big question but…

I: Haha yeah…Ok. I mean i always try to start with…i think its important that we get to know each other, so i try to, even of no one else is appreciating that, i try to do that…and also figuring out what everybody wants to do, if its a game project its important that if we have several game designers because we need to know who is doing level design, who is doing sound design, so that is clear from the start, and who wants to work on what. And then… this is a hard question, i don't know…

F: How do you go on about working with your ideas and how you come up with ideas and share ideas?

I: For coming up with ideas i really like the process of everybody maybe on their own in the beginning, just trying to drop down some basic ideas, nothing big just small ideas it could be anything, like how something looks or what it is, how it plays, what kind of game it is, if it just says like first person shooter on a note thats fine, small to big, and if its a whole game idea thats fine as well. And then everybody can spend some time doing that, and then coming back looking at what everybody has written on their notes and trying to latch on to the ideas from everybody else, maybe some of them can be combined trying to see what the group thinks is fun. Because usually with these school assignments, its a democracy so everybody has to agree on the idea right, so compared to if i would work on a game project in the game industry it wouldn't work like that really. Usually it would be just a few people who would decide on what the game is and then some people who are just doing the work … but in the school its important that everybody agrees so thats where i try to get in.

F: So do you have some kind of methodology or similar to do this, some special tools that you use?

I: I mean, for the… i think post it notes are really good, online or offline there is tools for that, and then everybody that are reding their things and you can just put them together, you can move them and try to make full ideas of them. I really like that process. And then for more like vague thing that i try to do is, and this is the hard part right, to not hinder the ideas and the brainstorming. Because its so easy to get stuck in details about how will this work, can we actually make this. That stuff doesn't matter in the beginning because you are all just trying to find something fun, and something that you all want to work on. And so what i try to do, first and foremost i have to stop myself from doing that[get stuck in details], and then i try to stop other people from doing that. So like if someone starts to get into details i try to be like "ok but maybe we can talk about this later when we figure out what to do, and just have fun with the ideas right now".

F: Ok so do you…when you were working remotely with this kind of method, do you have a special way of transferring this online, like sticky notes to online setting? Any special software you use, ideation software?

I: We are using Miro a lot over here

F: How do you think it works? Can it replace the physical world?

I: Yeah i think so, for sure! And in some ways its even better. Its so easy to change stuff and move and remove stuff compared to "the real world". Its quicker, so it can even be a better way sometimes.

N: Do you use github or google drive or some shared space where you upload shared documents, like a shared filespace?

I: Yeah for sure, we use both github and perforce(?) for version control, and then i guess it depends on the team …its been different like in some projects we have been using google drive for teamwork stuff if its like team contract and things like that. And sharing builds and stuff, because you dont wanna put that…or maybe you can i don't know, in the version control, but i haven't done that. What else… oh yeah, Trello have been used for project management and SCRUM stuff, and lately we have beginning to just Jira as well for that stuff.

N: And what about ways of communication like zoom , or discord or slack…

I: Ehm i mean…all of the above haha. But mostly discord i would say.

N: Do you have a preference ?

I: For version control , right now i would say github…i think i would like, we don't get the full perforce(?) experience here, but if we would i think i would prefer that. And then i like Jira for SCRUM things, and i like i guess discord wins when it comes to communication…even though i really dont think screen sharing works that well, but whatever.

F: Do you prefer a real world screen sharing where you can move over to someones work place and see what they are doing?

I: Yeah, definitely.

F: So, your school that you are on right now, do they help you in any way and how would they do that in doing group works, like do they enable or facilitate it for you to make it easier for you to work ?

I: Yeah i would say so. I mean they can always do a better job, but one thing that they have done good is for each game project that we have had, we have had so far like one whole big discord server for the whole thing, and provide the groups with their own channels and so, and they make instructions about how to work so that you are supposed to be like in the "office channel" all the time during the work days, and if you cant be then you should tell your team…they try to mimic a real office environment online which i think has worked quite well. And then they provide us with tools of course, like miro, jira, perforce and the stuff that we need as well.

F: Do they provide student accounts so that you can get full features and so?

I: Yeah exactly. We cannot choose by ourselves what we wanna use but on the things that the school decides, we get the things we need yeah.

F: Is there anything you feel that they could do more or better for you as students?

I: I think in general they can be better with talking about how to work with team work and how to work together and giving feedback and stuff like that, cause that stuff is even more challenging especially online, so the more like "soft values" or whatever you would say is something, and then like how to use version control - in a good way haha because that workflow is very complicated and it feels like you are just trying to figure out on your own, whats good practice and what is not, and that would be nice to get some more teachings on.

N: One last question. Do you feel like the school helps you with technical issues, for example if you feel like there is something you don't know or need help with, whether its like software or anything codewise, do you think they help you with that, have supervision moments and you can go to the teacher and ask them for help?

I: Yeah i would say so. We always have a lot of mentors as well, like industry ppl, that you can talk to about that stuff.

F: OK thank you so much for your time!

Interview 8

Interviewee age: 26
Interviewee gender: Man
Interviewee higher education: Stockholms University
Interviewee educational year: 2rd year student

N = Nikola
F = Fredrik
I = Interviewee

F: The first question for you is: have you worked in any group work during your studies?

I: Yeah, we are having a group assignment at the moment and there is a few in the courses we have had in the game development courses.

F: And have you worked with people you knew before or did you work with strangers every time?

I: We get assigned people mostly, so i've worked with different people every time, and whenever there is a course that isn't game development course, i just take on group and see what happens basically.

F: So a little bit of both?

I: Yeah exactly.

F: Is there any way you prefer working?

I: I kind of like having different people to get a bit more of different experience with every subject or what you say, but its always affirming if you have at least one person you know.

F: OK, is it so you have one person you can trust a little bit more? Or what is the reason for that feeling?

I: Yeah, me personally i have autism and ADD, so i have a bit of a few problems with strangers basically, i never had one person that i know since before, it helps, usually its not an issue either way but its a bit more comfortable.

F: So when you worked in your group work, did you work on distance or on site or both?

I: For the moment we are doing a mix, so basically there is a few of us who goes into the game lab cause there are some better computers so if you happen on an issue maybe you can take help from one of the teachers or other students or groups.

F: But you have done also total remote work?

I: Yeah

F: Do you find any pros with working remote?

I: What i would consider the best thing working remotely its a lot easier for you to schedule things and to adapt, and for me personally i don't really see the traveling time as an issue since im living on a walking distance from campus, but i've heard people considering that and that they dont want go into my groups because they live so far away.

F: ok, anything else ?

I: I would say you sit with the environment that you are used to and built yourself so you have a better understanding of how your own system works.

F: DO you find any like problems or difficulties with working remotely?

I: I wold say its more difficult to find inspiration to do things, and if you want to brainstorm i think its a bit more difficult. But in a way its also more easier to find like, ok i remember this

thing, let me just google it and then you can just send a link so everyone can see more easily, instead of just pulling up your phone and doing it because it feels a bit more inconvenient.

F: Ok so if you would try to maybe elaborate a little bit about why you think its more difficult to brainstorm and work like that in an online setting?

I: Ok yeah! So when you work completely from home you don't really get any environment changes, so basically you have the same stimuli, you talk to the same people and you see the same things, so you don't really get any new impressions and that kinda hinders the thought process cause you are stuck in one way and you cant really do much more with it.

F: Do you think that its important to get like new impressions to help with your ideation and your group work?

I: Yeah i would say its a pretty important part because if you don't get new impressions you cant really look at it any other way, you are stuck in where you are thinking.

F: Ok. So if we talk a little bit about your role in groups when doing group work, what role do you usually take in a group? Is there a difference in how you act in a group if its online or in a location?

I: I adapt to the groups mostly, so it doesn't really matter if its online or in person. Depends on how the other group members are, i need to take the lead i will take the lead and if not i will just sit back and wait for my time.
F: Ok so you don't find that there is a difference on how you interact with others depending if online or in real life?

I: No not to me, no.

F: Ok. So if you can have a preference for working in a group, do you have it?

I: Ehm, i do prefer just sitting back and relaxing but at some point if i have to take the lead i just go with my thing.

F: Do you like to have a close collaboration with your group partners or do you prefer more like dividing up the tasks and everyone goes away doing their thing?

I: I prefer dividing up tasks and then you can look things over just to make sure that everyone understands whats going on basically.

F: Alright. Why do you think you prefer it that way?

I: I personally think its easier to see what you have done, so when it comes to grading i feel its easier to explain what you have done and stuff like that, and i think that also if you divided

tasks you get like…every person can do one thing and if one person gets stuck, the whole project doesn't get stuck.

F: So you mentioned you were in the second year, have you had the chance to create a full game yet in a group?

I: Yeah we made one full game in a course last year.

F: Can you describe if you can shortly how the process of creating a game was from the start to finish?

I: OK yeah, so this was when everything was on distance, then we got an evening where just brainstormed and it ended up that we made a game based on an internet icon boxing, but only her name, so we had that idea, then we discussed what roles everyone wanted and everyone wanted to do the same thing so we divided like the second most interesting role…and then we tried to work with each other as much as possible, we had to do a little bit of everything anyway, so i would be like the lead artist or something like that, so i did most of the visual stuff and everytime i did something i posted what i did and asked for feedback, and then we decided that had two meetings a week on wednesdays and fridays. So we showed everyone what we did and we talked about plans and such.

F: And what kind of tools did you use in your groups to facilitate the group work?

I: We mostly used Discord. And then, to actually have it written out the exact tasks, we also used Trello.

F: How did it work using those?

I: I mostly prefer discord where we had one update channel where we posted pictures or told each other what we did or when we pushed to main and stuff like that, so we didn't use Trello very much but its a very good system if you use it properly.

N: Discord is obviously for communication i'm assuming, and the other programs you could potentially have used that the school have shown you are zoom. Does that mean that you prefered Discord over Zoom?

I: Yeah exactly because then you can have a standing text channels where you can write and give updates and send photos, and if you need any help you can just hop into any of the voice channels and also just add someone if you want to talk to someone special.

N: And i was also gonna ask you if you used any kind of version handling or cloud or google drive ?

I: Yeah we used github, i think we installed a plugin which is called github for unity and we also used github desktop.

F: Did you use any kind of ideation tools, that is tools to help you come up with creative ideas about you games concepts or story and things like that.

I: Hmm, not that i recall.

F: Ok. Do you know about any tool like that?

I: I wouldn't say, i might but i wouldn't really put them as an ideation tool then.

N: When you were creating the ideas for the games, was it more like you were brainstorming or like just thinking about things and writing about them in chat potential ideas. Like where did you store the data?

I: ok so we talked it over, then …because we had to bring out …i think we posted links to stuff and sent pictures, and then we had to do a what is it called…i think like a ggg two page or something like that, where you basically write out the idea and you have like a map of the theme or something.

F: Do you find …like im assuming that you have done groupworks pre pandemic in real settings so to speak, am i correct?

I: I have work experience where i have worked for about five or six years

F: So do you find there are differences where you have to work online as opposed to working in a room with other ppl, when it comes to idea creation and ideation?

I: I would say so. Because mostly when it comes to online work even before i started studying, i was working with a bunch of gamers then as well, so most of the things we did was through discord or lookalikes, which was more directed towards companies and stuff, and then when i went back to the same work last year they had switched over to microsoft teams and as soon as i…because i had a responsibility, so you would have to think that you would need to talk with your co-workers and tell that this is whats going on, and if you have thoughts or questions just talk with me, when it came to stuff everything kinda looked like that, like direct messages all the time.

F: But do you feel there is some "dimension" that gets lost over the web? Something cant really touch but is just there when you are meeting someone in real life?

I: Yeah, so because work i had i stared in the actual office, so when people had questions or when you needed help you would just walk up to someone, and what i did when i saw that someone needed help i would walk up to them, ask them "do you want some help" so i got to teach both my customers and my co-workers a lot of things and they helped me with a lot of things, so as to when it comes to the co-workers it felt completely different because you couldn't really walk up to them and just speak.

F: Do you think that it is something you prefer to be able to do, or is it something that you feel its not that important?

I: Ehmm, personally i really like doing a mix, so that you somedays sit with other ppl, and the other day you sit at home because then you have both the pros and cons of both.

F: So how you see the future of how you would like to work, is it like you said now a mix of both or do you feel?

I: Yeah i would much prefer a mix of both.

F: So the last question, how is your school helping you in group works and in working remotely and how do they enable you to easier work in groups?

I: I haven't really considered it too much because i've feel like im mostly using things, i've used my spare time anyway, but we do have game channel for every game student both current and alumni, for the current course we have like an entire server for ourselves where we get a few channels each, we discuss things, we have show and tell, we can do play tests and stuff like that.

N: Is there anything the school could do better in assisting you?

I: I think maybe because…i spoke a lot with the new students and with students from other parts of studies like nature science and stuff like that…because i very much recommend discord to most people that i can, but for a lot of them they feel like its difficult to use so if they[the school] could have like simple simple tutorials on how to use it and stuff like that, because its a common tool for students.

Interview 9

F = Fredrik
N = Nikola
I = Interviewee

N: Nu

I: Got it

N: So, have you worked in any group work during your studies?

I: Yes, i have worked in three group works, the first one was a small project for like three weeks i think and we worked in six persons each, and we made a short game, it was

supposed to 2d and done in pixelart, yeah, and we made it in unity, and the second project was a very small one, it was like what was it, three days or something, and we were three people in each group, and then the purpose of that was to learn like, more of the art, it wasn't much gameplay, it was like more like a visual novel type game, and now we're working on the big project all the way until summer and we're supposed to make a VR game for a place called rödbergsfortet, yeah

N: Ok, and in these projects, did you work with people that you knew from before making the group?

I: No no no no, i didn't know anyone

N: Ok, so you don't have any experience of working with people you know from before during your studies

I: Exactly, i, the people i work with i've never met before, before the education

N: Yeah yeah, exactly, before the education, ok, so, have you been working on site or remotely, distance or physical?

I: We've actually always been working on site on all of these projects, we haven't had that much problem with the corona virus fortunately so it has worked out very good

N: Ok ok, so, what role do you usually take during your projects?

I: I usually don't take the leader role, I am in the discussions and of course like, giving ideas and talking about them but i usually don't take the leader role, i would say i am more in the, like, background, i like to like, someone tells me, do that and i will like, do that, that's, i feel more, most comfortable in that situation, to get told what to do, it's easiest that way i think

N: Yes, same, same, so, how do you prefer working in a group, do you prefer when you work tightly with others and people work on the same thing or do you prefer when you split up the work?

I: Good question, i would say i prefer when people work on the same thing

N: Multiple people on the same thing

I: Yeah, multiple people on the same thing i would say, because i'm doing like the 3d assets and art stuff so it's really nice to sit close to the other people doing art and just give each other

N: Ideas

I: Ideas and stuff, yeah yeah yeah, yeah

N: Ok, so, could you describe how the process of creating a game looks like in a group

I: Ok, so, i can take the game we are making now as an example, first we need like, because we are gonna do, we're doing the game at a real place so we need references, so we went to rödbergsfortet and took a lot of pictures, like, 100's of pictures on everything so we had references, and then we interviewed some staff there to get more references about history and stuff, the history there, because our game is gonna take place like in, what is it, 50 years prior, so, and then when we have all the references we start to divide ourselves in groups, like the artists and the programmers and the designers, and then after that we assign a lead to like each department, one design lead one program lead and one art lead, and then they start to like, looking through all the references and assign, start to assign people to their different workplaces or, however you say it, yeah, and then we start working, we use different sites to like, a site called hack and plan where you can see what people are working on, so there's like different tabs, one for done, one for testing, one for working on and one for like, you haven't started

N: Do you use a program to keep track of this or how do you

I: No, it's a site called hack and plan

N: Ok ok

I: Yeah yeah yeah, and there you can see what everyone is working on so you don't like need to walk around and keep an eye on everybody because you can see on that site what everybody's working on, so that's really good to have

N: Yes

I: And that's where we are right now with the project

N: Yeah, so, i was gonna ask, this project was preplanned right, you had an assignment and you were supposed to make it as good as possible right?

I: Yeah

N: Yeah, have you ever done like a game from scratch as in also the idea, like, you have to come up with your own concept of the game

I: How do you mean, sorry, i don't understand

N: So so, making up the story or like what the game is supposed to be about

I: Oh, yeah yeah yeah yeah yeah, we did that for one of our projects, we had to, we made up our own story totally

N: Yes, and how did that process look, did you brainstorm or how did you get to the story that you ran with at the end

I: One of the guys in our group had an idea, like a concept he wanted to do and then everybody thought that it was a really good idea but, he hadn't it all planned out, it was some small parts in the game he had planned out, so then we just yeah, brainstormed a lot like, two full days we brainstormed or something like that and then we came up with an idea, but yeah, it was a lot of brainstorming on that project

N: Yes, and did you use any program for this or post it notes or anywhere to keep track of all the ideas, maybe just a document

I: During that project we used just notes on paper, paper notes, no documents or something like that, but then after we put it on notes and stuff like that we made it into a design document, also the brainstorming when we were done with the ideas and stuff

N: Ok ok, so, have you used github or any like, google drive or any tools for like clouds where you share like the work

I: Yeah, we were using google, is it google cloud, is that the name

N: Yeah, i think google drive is the name

I: Yeah, google drive, sorry, google drive, yeah yeah yeah, we, we're using google drive right now, some of the people are using github but not me, i don't use it

N: Ok ok, and what tools do you use for communication, if it's discord or slack or zoom or messenger or

I: It's only discord, we only use discord

N: Yeah, i think it's common as many people only use discord, have you tried using any other communication, like maybe zoom even if it was just

I: Yeah, zoom and skype

N: Yeah, and i'm guessing discord was the

I: Yes, discord, probably something else but i don't remember right now, but zoom, discord and skype i have used for communications

N: Ok, do you think the communication varies between like, physical and remotely, like do you think that people communicate the same way on site as remotely or do you think that they change their answers depending on location

I: I think it depends on the situation really, if we're working in this, in a game project i really think people say what they think because we're like working, it's really important, so i don't think people change the way they talk during, when we work on the game, but if we talk maybe about something else entirely, i don't know what but something else people may change their answers because, yeah

N: Yeah, work versus fun

I: Exactly, work versus fun, exactly

N: Ok ok, great, then we're already at the last question, does your school facilitate your group work in any way, do they help you or make it easier for you work together

I: Yeah, you mean like the teachers and stuff

N: Yeah yeah yeah exactly

I: Yeah, yeah, of course, we got a new teacher recently actually, he started maybe two months ago or something and he has been really good, he helps everybody the best way he can and, yeah, so, yeah, we get help if we need it and he is very knowledgeable in many things so, there's no problem there

N: Ok, so you've never felt that like you needed help and weren't able to get it or anything like that

I: No, no no no, and if he is like, if he is helping someone else you can just ask a friend and they probably know how to fix the problem

N: Ok ok, well, that was it, thanks for the interview, do you have anything else you want to add before we end

I: No, just, good luck with your assignment

N: Thank you thank you

Interview 10

F = Fredrik
N = Nikola
I = Interviewee

N: So, have you worked in any group work during your studies

I: Yes

N: Have you worked with people you knew before the project started

I: I mean, yes

N: Ok, and have you also worked with new people potentially

I: Yes

N: What do you think the difference is was working with people you knew from before contrary to people you didn't know

I: I think, I think it's easier to actually do the work with new people because then you have to make an effort and not seem bad, but with people who you knew before then it's maybe too relaxed

N: Yeah, no work gets done, ok, so have you worked remotely or on site, or both

I: Both

N: Ok, what was the difference between working remotely and on site, any advantages or disadvantages from both sides?

I: The difference

N: Yeah yeah, which one you prefer and like, was there anything annoying with working on site or were there any advantages of working remotely or anything

I: The thing is, if it's online then most people will like have easier to actually show up than if it's on place and also that's a huge problem, used to be, so i guess that's the hugest difference i think

N: Do you think there's any difference with how people communicate online versus on site

I: I think people are nicer in person

N: Ok, ok, let's move on to the next question then, role in groups, which role do take in group projects?

N: Do you like leading the group or do you like taking more of a back role for example

I: I prefer having just the back role i guess

N: Ok, ok, the next question is also do you think this changes between remote, working remotely or physically, but i'm guessing that's more of a person trait, you prefer the back role no matter what

I: Yeah, i mean, if i'm with a group that doesn't work out then i guess i'm, i will try to be more of a leader, but if someone else is has taken that part then just, i will just sit in the back and do whatever i can

N: Ok, so, how do you prefer working in groups, do you prefer when multiple people work on the same task, same part of the assignment or do you like splitting up and everyone having their individual task

I: Probably splitting up

N: Yeah ok, so everyone, each has their own part and they do it and then you combine it

I: Yeah, but there should still be like, like people should still be able to ask each other for help or i don't know, help each other out

N: Yeah, absolutely, so, if you could just describe the process of creating, of the start creation of a game, like just the story or like, anything with how you come up with the concept of ideas and everything

I: What is it called when you just like, say a lot of different ideas i guess

N: Brainstorm

I: Yeah, brainstorming

N: Yeah ok, so you your partners brainstorm and come up with an idea that way

I: Yeah

N: Ok ok, so, what tools did you use when work together like, shared workspace or where you were writing the documents or anything

I: I mostly used google docs, google drive for other sharing files and also i guess whatsapp is often used for chatting and i guess discord sometimes

N: Ok, so, do you know any tools used for ideation, for creating ideas or generating ideas or helping to make ideas… it's fine to say no if you don't

I: I don't know

N: Ok, so, do you think there's a difference between coming up with ideas online versus on site

I: No, i think, i don't know, i think it's easier to just discuss things face to face i guess

N: Ok, do you think that your school makes it easier for you to work whether physically or online or anything

I: Wait, can you say that again

N: Do you think your school makes it easier for you to work whether it is online or on site or, do they help you in any way

I: No, if they help in group works or?

N: If they help like, with maybe finding a group partner if you don't have any, or if you're unsure of something you can ask the teacher for help and they respond within a reasonable time

I: No, no, i don't feel like that at all

N: So you feel like the school could be better at helping you

I: Yeah

N: And, do you have any concrete ways in which the school could be better in helping you out?

I: I don't know, like, if they know that there is a conflict inside a group or like, i don't know, something that is a hindrance for the project to get done they should, i don't know what exactly but, they should definitely try a little bit more than they do, i don't know to fix it or help, i don't know

N: Ok ok, well, that was the last question, thank you very much for participating, do you have anything to add

I: No, i don't know

N: Yeah, you don't have to say anything if you don't have anything, it's fine, ok, i stop the recording

Appendix E - Reflection documents

Nikola Pepivani

Goals

The goals weren't the main focus while writing the essay since we didn't read the goals and check if it matched with what was written for every single line of text. Although this is the case I still think we fulfilled all the criteria presented to us. The goals for a successful thesis should all have been accomplished to a passable degree and thus our essay should be a fine read for anyone interested.

Our biggest focus during the essay was on how to properly explain all the information and data we gathered as accurately as possible without misrepresenting any of it. This led to many revisions which hopefully achieved the goal of making it clear for the reader how the study was conducted, how the previous research we found connected to it, and how the conclusions make sense from a logical point of view.

Some of the goals could have been achieved to a better degree. Since we had a hard time finding the participants and time was starting to run out, we might have been able to conduct an even better thematic analysis if we didn't have to stress through it. I'm mentioning this since we didn't use any software when conducting the thematic analysis which was recommended.

Plan

We thought we had a good plan which would allow us to balance other courses with the thesis writing, but time showed that we were too hopeful and this led to many inconveniences down the line. We didn't find the participants in time for when we estimated we would have found them which led to us having to reschedule how and when we had to do other things for the thesis. Since finding the participants delayed us, we were forced to rush many other parts of the essay due to the time constraint placed on us. This was a good experience in realizing how things don't always go as planned and that it is important to be adaptable.

Everything else went great if we ignore the issues that came from not finding the participants in time. We revised our essay multiple times, and since language and structure had been a big focus for us it was easy to do without much time having to go into it.

Relation to education

This paper was written by two computer science students and thus obviously has to have a relation to the fields that computer science envelops. While our thesis is also social science since we study a group of people and the issues they face, our thesis still has a focus on game design students and specific issues that they face. One of the main points of the essay is how technology affects remote education and what tools and procedures they use in their daily studies.

While the study in our opinion has a strong enough relation to technology and other aspects that relate to computer science it would be understandable if people disagree or don't realize it at first glance since these aspects come up later in the essay and people probably wouldn't realize this just from the title.

Value for future work/studies

While this essay taught me many things regarding how research is conducted and how to gather and sort information I think that the most important things that writing this thesis provided me were the experience of working on a big project with a partner, improved time estimation skills and how to adapt when things don't go as planned. I am planning on working after my bachelor's which is why I think these are the most crucial skills, but that isn't to say that I won't return to studying someday, and then other skills that I gained from the thesis might be more important.

Overall satisfaction

I am satisfied with the work and the finished product. As mentioned earlier I think that there were factors that could have improved the thesis and led to a better final product, but considering the issues that occurred during the writing of the thesis and how they were handled, I am very pleased with how it turned out.

The main reasons why I am satisfied is that I felt that the thesis actually analyzed an important issue and was a meaningful project. Writing this thesis also made me feel more independent and ready to take on other challenges since it forced me to properly work on something of importance and be prepared to solve problems as they came.

Fredrik Edström

Goals

I think that method application was a goal that we met with satisfactory results. We strived to conduct enough interviews to give us sufficient data to analyze, along with a pilot interview to help us understand how we should carry out the interviews with better efficiency. I think our presentation of how we interviewed and of our subsequent thematic analysis came out in a good way. One thing to note though is that for the analysis, we didn't use a specific program tailored for that purpose but rather worked in a shared online document, and that is something that we could have mentioned in the analysis part of the methodology application chapter.

If there is something that could have been improved I would say that the conclusion could maybe have been a little less shy and less generalizing and more specific for different situations and different persons.

Plan

Our planning worked out pretty well for us and we didn't have any major problems with hitting the different deadlines leading up to the final seminar. My college and I have worked together before and know how to work together and make it work well. But of course we had some road stops along the way, one example would be that we were a little bit late in connecting and scheduling dates for the interviews. We established connections with potential interviewees early on through a questionnaire, but didn't follow through with scheduling the interviews until a little bit later, which led to some time constraints at the end. The main problem here was that some of the people we thought were lined up for interviews were no longer available. In future work, I would certainly be less hesitant to book up people that are needed early on in the process.

Relation to education

Our thesis relates to our education in that it explores and focuses on how ideation in game design, something that usually has been done physically with other people, is affected by being carried out digitally in an online setting. I would say that the most important courses we had that prepared me the most for this thesis would be vetenskapligt skrivande(VESK) and vetenskaplig metodik (METOD).

VESK gave me a good understanding of how to write a larger essay or thesis, how to structure it and plan for the different writing phases as well as how to formulate myself and write in a more academic fashion. METOD on the other hand was very good for getting an understanding of how to carry out the research in practice, and for learning what kind of research was best suited for what was being researched.

Value for future work/studies

I would regard working with this thesis as very valuable for my future work or studies. I have learned the importance of planning my work thoroughly in order for it to yield satisfactory results, something that traditionally always has been my Achilles heel. Having to work with a partner and cooperating over such a long time also is important to learn since future work almost certainly will require that. I still don't know what I will work with, but if it would be with something regarding UX design I reckon that the interviews and analysis we did was an especially valuable experience for that kind of work.

Overall satisfaction

My cooperation with my writing partner Nikola went very well and I am happy with the result of the work we did. As usual, I always feel that an even better job could have been done in some parts but the overall feeling is good. I would perhaps have liked a larger number of interviews in order for the analysis to be even better, but with the resources we had and our time limit the resulting ten interviews were sufficient.