Sami Game Jam – Learning, Exploring, Reflecting and Sharing Indigenous Culture through Game Jamming

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ABSTRACT

In this paper, we explore the experiences and lessons learned from Sami Game Jam 2018. Sami Game Jam 2018 was organized in Utsjoki, in a small Sámi village next to the border of Finland and Norway. The group of 44 jammers consisted of local Sámi participants and Finnish as well as international game students and professional developers. The event had 12 Sámi themes to explore that were divided between the teams and the event resulted in six games all combining two. The jam was stressful for the participants and organizers, both Sámi and non-Sámi, but in the end created an invaluable space for rich experiences, learning and self-discoveries. Furthermore, the jam provided a platform for indigenous game development and local game education and a platform to develop Sámi Pedagogy further.

Keywords

intangible heritage, game jams, indigenous cultures, serious games, Sámi Pedagogy

INTRODUCTION

The phenomenon of game jams has been growing radically for the past decade. In 2009, first Global Game Jam attracted only few thousands of participants – in 2019 this number is over 40 000 (GGJ 2018; GGJ 2019). In 2009 it was still quite rare to organize game jams, but nowadays game jams are run all over the world in many different formats. Game jams can offer arenas for research (Kultima 2018; Fowler et al. 2013), game education (Preston et al. 2012; Musil et al. 2010; Hrehovcsik et al. 2016), innovation and ideation (Ho 2014; Kultima & Alha 2011) as well as work as places for different disciplines and people with different backgrounds to meet and create together (Kultima 2018). In this paper, we are exploring the format of game jams as a tool for Sámi language and culture.

Sámi people are the only officially recognized indigenous people of Europe. The Sámiland covers areas of four nations: Norway, Sweden, Finland and Russia. However, the Sámi culture is not a lucid entity. It is a combination of multiple languages and societies (Keskitalo et al.2013). Traditional livelihoods are reindeer herding and fishing but most of the Sámi people today are working life professionals. The educational challenge is the intangible heritage in Sámi culture, such as the traditional way of singing and storytelling, as the western school system dominates the schools with Sámi students (Keskitalo et al. 2013; Sámediggi 2019). In Finland, the Sámi are recognized as an indigenous people in the Constitution of Finland and they can develop their language and culture (Keskitalo & Määttä 2011).

It is said that indigenous people have always made and played games. Indigenous teachings and traditional knowledge have been passed on through games before digitalization. In that context, digital game platforms offer a new tool for indigenous cultures to make games, but the capacity and the multidimensionality needed for game-making is already a part of indigenous cultures (LaPensée 2017). Digital games can offer a space for indigenous self-expression when indigenous people are seen as possible co-developers and not just a source for inspiration (LaPensée 2017). However, Indigenous research on the role of games in Sámi education has been scarce.

It is crucial to understand how research and gamification can support and revitalize the Sámi languages and provide research-based support to other indigenous languages and cultures in danger of extinction as well. Game jamming in indigenous context can be seen as a way to enhance and revitalize the ability to make and play games with new tools. Then again, it is necessary to focus on the revitalization of Sámi languages at many levels. One of these is introducing technological opportunities to strengthen the Sámi languages and culture in the modern society.

Technology is a tool and the colonial effect depends on the usage. While technology itself is not colonial, it can be seen as a two-edged sword: as technology can be useful in preserving language and culture, it can also do the opposite and assimilate (Allen et al 2002). As an example, the storytelling feature in the Sámi culture may be decreasing when new media platforms are taking over in our everyday lives. For the past decade, there has been several efforts to re-ignite the pieces of eradicated culture as well as support modern cultures of Sámi people across the borders of several nations, but games have not yet been central in these efforts.

In this paper, we are exploring these topics through the event design and experiences of Sami Game Jam. Sami Game Jam was created to inspire and encourage future creatives, Sámi and non-Sámi alike, to explore more on the games, play and Sámi topics. This research discusses indigenous games and game jamming as a form of teaching and cultural learning - as part of Sámi Pedagogy.

SÁMI PEDAGOGY

There is an ongoing discussion and development of ways that would be better suitable for the Arctic and Sámi ways of living. As the western school system dominates the educational systems of the Arctic areas, this discussion also relates to the pedagogical models. The need for a special pedagogy for the Sámi arises from the fact that the western school system does not support the needs of the Sámi as an indigenous people. The development of suitable frameworks is not trivial: Sámi Pedagogy needs to be developed on its own cultural basis (Keskitalo et al. 2013).

Sámi Pedagogy refers to a pedagogical model based on the history and special features of Sámi language and culture (Keskitalo et al. 2012). Sámi languages are all endangered, thus the language revitalization in very essential role in Sámi Pedagogy and education (Keskitalo et al. 2013, Aikio-Puoskari 1998). In this paper, the framework of Sámi Pedagogy will form the basis of analyzing the educational suitability and utility of the game jam format. Within the Sámi history, like in many other indigenous people's histories, there are trauma and political injustice. The colonization of the Sámi region can be dated back to 1600's and since then, several Sámi languages have died due to political actions, ties to family traditions cut, and traditional ways of living are in danger to disappear (Helander 1994). Especially the school system assimilated Sámi children. As an example, the Sámi children did not

have the opportunity to learn their mother tongue in schools. Years of oppression and assimilation led to the point where many Sámi were ashamed their culture (Kulonen et al. 2005).

As the schools were a place for assimilation, they can be a place for cultural revitalization. For example, one of the main objectives in Sámi politics is to "Sáminate" the educational system concerning Sámi people by increasing the number of culture-guided educational materials. Of all the Sámi states, Norway already has a curriculum for the Sámi (Balto & Hirvonen 2008). However, all of the schools in Finland are bound to Finnish National Core Curriculum that can have localizations and translations into Sámi languages (Keskitalo et al. 2013).

Games are a combination of art, multimedia and code bound together with design (LaPensée 2017). According to the Basic Education of Arts in a Sámi cultural context article, the important role of education is to offer educational support for indigenous students and their well-being individually, culturally and socially. Furthermore, it is as important to enhance awareness and understanding of indigenous cultures and arts for those who are not indigenous (Kallio 2017).

The role of play is central to any form of human culture (Huizinga 1955). Play is also a typical feature in Sámi education (Keskitalo 2010), and according to Länsman and Tervaniemi (2012) Sámi digital games are needed to strengthen the indigenous Sámi languages. Despite this, games are not yet well represented within the field of Sámi art and education. For instance, at the Finnish Museum of Games, only traditional forms of Sámi games (päskksiõrr, a game with reindeer bones) are currently exhibited: it was difficult to find anything to show from the Finnish history of games in 2016 when the museum was established. One reason for the lack of Sámi games can be found in the history of a Sámi board game, Sáhkku. The game consisted of a wooden plank and pieces and it had similarities with Tâb game family played in several Arab countries. Sáhkku pieces had carvings based on Sámi mythology. When Lutheran church and especially the preacher Lars Levi Laestadius gained followers in the Sámi region in the 19th century, the Sáhkku game was banned as a "Devil's game" because it was seen alluding to old shamanic beliefs (Borvo 2001).

Sámi Pedagogy has not been implemented in game studies before. However, some of the features of Sámi Pedagogy were implemented on a game programming course that took place in Utsjoki during summer holiday 2017 (Laiti & Frangou 2019). During this course, a digital árran was created, representing the indigenous campfire and forming knowledge together. The study pointed out that implementing Sami Pedagogy to learning with and through ICTs is beneficial in indigenous context when social interactions are nurtured in the learning moment. For example, Sámi pedagogical manners enhanced the usage of Northern Sámi language during the course. The participants were placed in a circle like they were around a campfire. When some of the participants used Northern Sámi language fluently in every situation, it increased the usage of the language among all the participants. The participants also shared conceptual and factual indigenous knowledge through non-formal social interactions. The games created were made by adolescents grown attached to the Sámi culture. Their cultural connections were also visible in their games. In order to master one of these games, one had to understand the cultural way of thinking, in this case Sámi (Laiti & Frangou 2019). The study had its limitations for it was small in scale. However, the results raised a question of implementing Sámi Pedagogy to game developing in general. If the Sámi pedagogical approach enhanced cultural elements in game programming through social non-formal interactions and one of the features in game jamming is social non-formal interaction, it is possible

that the combination of Sámi Pedagogy and game jamming will enhance cultural elements in the Sami game jam games? This question inspired us to explore game jamming as part of Sámi Pedagogy.

METHOD AND RESEARCH QUESTIONS

In this paper, we explore how the format of game jams fits to the Sámi Pedagogy and the how it can bring together indigenous people and experienced game makers. The research questions were:

1. How was the Sami Game Jam organized?
2. What kind of games Sami Game Jam produced?
3. How did the game jam format serve the Sámi and non-Sámi participants?

In order to explore these questions, we adopted a qualitative research approach utilizing participatory observations as well as analyzing the event design and end results, the games created at the Sami Game Jam. With a qualitative research approach, we were able to seek in-depth understanding of the format within the given context. In qualitative research, understanding phenomena and creating a meaningful interpretation is central. Qualitative approach concentrates in exploring the nature of the phenomenon and can be used for conceptual reflection (Creswell 2009; Eskola & Suoranta 1998). As we are studying a group of people in a cultural context in the field, our approach is also ethnographic. Ethnography is a research strategy often used in the field of social sciences, particularly in anthropology and it usually involves field work and observations (Wolcott 1999). Being in an authentic context of the study subject, the researcher gains insight to the phenomenon that cannot be reached in artificial settings. Our strength in this study is that one of the authors in this paper is indigenous herself and the other has indigenous background. Thus, we understand the cultural sensitivity involving indigenous ethnography. Furthermore, we do not describe the research subjects as "others", different and exciting (Keskitalo et al. 2013), for we are both connected to the culture and game jamming. Rather this study is a dialogue with ourselves, even as autoethnographic (cf. Adams et al. 2015). Even though our study does not provide generalizations, the objectivity is formed when we are aware of our own perspectives (Keskitalo 2010). Furthermore, as there were no prior studies on using game jam format as part of Sámi Pedagogy, an exploratory approach was deemed as most fitting.

DATA COLLECTION AND ANALYSIS

Ethnographic approach usually produces data through observation, interviews and documents and leads to a narrative description of the phenomena (Calzada 2015). As we are members of the game jam community and deeply connected to the Sami Game Jam event as organizers, we used the participating observation method to collect data (DeWalt & DeWalt 2011; Clark, Holland, Katz & Peace 2009). In practise, we were watching what happens, listening what is said and following discussions on Discord, an online chat platform chosen for the Sami Game Jam. In addition, we also participated to the discussions and activities: we asked questions, told our stories and involved in the design processes.

The nature of game jams is intensive (Kultima 2015) and the participants form close connections. It is challenging to observe a game jam team, or the event as an outsider. The beneficial side is the first-hand experience with the participants and the possibility to save data as it occurs in the situation. However, it is also possible that the participants see the researcher as an outsider or intruder in the situation. Furthermore, the researchers observing skills can be inadequate (Creswell 2009). To

address this, we both observed the group that we would miss as little as possible, and we were part of different game jam teams.

The observations and reflections, as well as games and the event design, were analyzed using qualitative content analysis (Mayring 2000). Content analysis is a research method for studying documents and communication artifacts, which in this case were the games, discussions and observations. The purpose of content analysis is to produce a description out of the phenomena researched and link the results to other results and a wider context.

PARTICIPANTS

Due to the delicate nature of the topic of the jam, the group of jammers was curated by invitations and selected through an online application. The invited jammers consisted of experienced jammers around the world and Finland; the invited Sámi representatives were either locals or selected via application. In the application form, the applicants were asked what their relation to Sámi and what kind of experiences they had with game development, among other questions. Altogether 44 participants (Figure 1) were selected with varying ages from preteens to a middle-aged participants. The participants also had various backgrounds: some had no prior experience on game making while others more than 10 games in their portfolios. Some of the participants were professional game developers and some studying game development in the university. The jammers were also selected based on what kind of skill sets they had for game making: programming, art, audio and design roles were all represented.

Figure 1: Most of the participants of Sami Game Jam posing next to the traditional Sámi tent, lávvu, used for the presentations.

The teams were also curated: as the number of the games was already decided before hands and each theme were to be explored by the games; the teams were set before

the jamming started. Teams were built around experienced jammers as leaders and each team had at least one local representative as a Sámi expert.

The participants were catered and accommodated: The non-local participants were able stay overnight at the school building or at a nearby house, the travel expenses of the participants were covered, and the event offered lunches and dinners.

RESEARCH ETHICS

Our study involves indigenous individuals. Therefore, a special attention has been dedicated to the research ethics. The research was conducted within the guidelines of the Ethical Conduct for Research Involving Humans (Canadian Institutes of Health Research, Natural Sciences, and Engineering Research Council of Canada & Social Sciences and Humanities Research Council of Canada 1998) and of the Finnish National Board on Research Integrity (TENK). All the participants were informed about the study both orally and in writing and they gave their consent signing a consent form. If the participant was underaged, we informed the legal guardians asked their consent in writing as well as the underaged participant. We respect the privacy of the participants in all the phases of this study. As one of the authors is a member of the Sámi community and indigenous, the collected data was analyzed in collaboration with the Sámi people.

RESULTS

In the next three sections we will first go through the details of the event design, then the end results of the event: the jam games, and finally explore our observations at the jam and after the jam.

Sami Game Jam Event Design

Sami Game Jam was a five-day game development event (taking place in February 2018) where experienced game developers and people with Sámi background came together in Utsjoki, Finland creating games on Sámi culture and phenomena. The games created at the jam were showcased after the event and placed available for play for the public. The event was named as Sami Game Jam for it was easier to pronounce to the non-indigenous participants and we did not want to mix languages in the name of the event.

The planning of the event started more than a year before the jam took place: representative of Utsjoki municipality contacted Finnish Game Jam organization to plan activities improving the development of Sámi games in Finland. The jam was then planned to take place at Utsjoki, a Sámi village, where experienced game developers were invited to create together with the locals of all ages.

In the Sami Game Jam, we mixed local Sámi with experienced participants, since there was not enough knowhow in game making available in the Sámi communities. The project was also set for communicating purposes: to educate different audiences on Sámi cultures and showcase Sámi phenomena in the form of games.

The event took place at a local cultural center and small movie theater, former school building. There was also a temporary tent, traditional Sámi *lávvu*, built for the yard of the culture center. Lávvu was also part of the Sámi Pedagogy framework of the event: it was used for information sharing, as in local practices. Lávvu was in use even though the temperatures went as low as -38 C during the jam weekend – there was an open fire in the middle of it. The lávvu was borrowed from a nearest Norwegian library, with a library card of one of the organizers.

Since many participants were not familiar with Sámi culture, the first working day was devoted for learning more about the topics before the themes were released for the jammers. The Sámi topics were explored through different activities: by lectures, hike to the local mountain and watching contemporary movies made by Sámi people. This type of cultural bathing served two purposes: the participants had a chance to get to know each other and share the cultural learning experience together. The Sámi participants reflected their thoughts and feelings during this cultural bathing showing the diversity in the Sámi community.

After the seminar day, the important topics were also discussed or presented in the lávvu on other days: Kate Edwards (Geogrify) lectured on the topic of culturalization in Games, a local scientist explained the natural phenomena on the area and some local participants also explained their experiences. Many of these presentations were done in a traditional Sámi setting (Figure 2): in an outside lávvu with reindeer skins and open fire. Campfires and real life working situations are the scientific seminars for the Sámi. The round circle around the campfire means that we are all equal and create the knowledge together (Keskitalo, Uusiautti & Määttä 2012). The jam followed the plan on using the lávvu, despite the freezing weather of the jam week. The presentation setting was meant to open the traditional habits and culture through first-hand experiences of the jammers. By good luck, the event was also timed on a period with solar activity: on two nights the participants were able to witness northern lights on the night sky.

Figure 2: Reflection session at the lávvu.

An important element in the setting of the Sami Game Jam was carefully curated list of themes for the jam games. These themes were prepared well in advance: two of the Sámi from the organizing team had almost a year to reflect on what they thought was important and current topics in the modern Sámi experiences. They worked together both face to face, and online. The ideas for the themes were also reflected with two Sámi culture professors.

On the first jamming day, the themes were revealed to the participants and each team got to choose one. The other theme was randomly assigned to the teams.

The themes were presented on three levels: title, narrative and factual. The narrative part was written as an example of subjective interpretation of the theme and the factual part offered information of the topic. The narrative part of the theme was offered as an inspiration: it was not necessary to include it as such. The themes are listed below as they were presented to the participants of the Sami Game Jam.

1. Strangers in Their Own Land

- *Speak - but speak our language. Wear clothes - but only what we want you to wear. Learn - but learn in our way.*

- The assimilation policy left a deep scar in Sámi society. It is a trauma that is passed from generation to generation.

2. Border Crossing People

- *One day it was one village. The next day it was two. Divided between a King and a Tzar. In the years to come the villagers paid their taxes not to one, but to three countries.*

- The nation has no borders, but countries do. The Sámi were divided by the four states of Russia, Finland, Norway and Sweden. But still there is one united Sámiland, Sápmi.

3. Cross-Generational Stories

- *In the nearby mountain lives Stallu, the man-eating ogre. I am not supposed to go there at nighttime when he is awake. And Čáhcerávga, a water wrath living in our well, could snatch me away. Anytime. Grandmother says not to go near. I know my territory, it's monsters and spirits.*

- Sámi children know which places are safe and which are not because of the stories passed from generation to generation. They learn the right way of doing things through stories.

4. The People of Eight Seasons

- *Nature will tell us what's next: When it's time to gather the reindeer herd, when it's time to fish, when the cloudberries are ready to be picked and when it's time to rest. We listen and nature will show. We gulahalla luondduin – speak with the Earth.*

- Spring, spring-summer, summer, fall-summer, fall, fall-winter, winter, spring-winter. The rhythm of life is based on the circle of the seasons.

5. Persistent Stereotypes

- *People see me, but they don't really see me. They expect me to behave and act like my ancestors did. People see me through romantic images or negative expectations they have for my culture. Am I the one who decides what I am, how I look and how I behave? I'm not here to fulfill the stereotypes, not the good ones or the bad ones.*

- The modern society evolves but somehow the indigenous Sámi should stay the same.

6. Living Outside the Sámiland

- *The pace of the city is faster, it makes one almost dizzy. The air smells filthy and the ground is filled with trash. Back home the snow is white. Here it's*

brown or it doesn't exist at all. There is too much of everything: the noise, the smells, people, houses, cars, trees, colours… Too much! I miss home, where I can breathe again, where I can hear my language and be with my people. Until I want escape again. Back here. In the city.

- Most Sámi already live outside the Sámiland. For instance, 1000 Sámi live in Helsinki area. Some Sámi people identify themselves as "city-Sámi".

7. Ultima Thule

- *I am the light and I am the darkness, I am the strong and I am the frail. In all extremes, I have persisted and adapted - but for how long?*

- By definition, Ultima Thule is "A distant unknown region; the extreme limit of travel and discovery". The Sámiland is located in the Arctic. The area is characterized by the long distances and extreme variation of light and temperatures. The people have adapted to harsh conditions. Although the people have adapted, the beautiful arctic nature is very sensitive to changes.

8. One Nation, Many Languages

- *My great grandmother spoke Inari Sámi, Northern Sámi and Finnish. Grandmother, áhkku, spoke Northern Sámi and Finnish. My father spoke Northern Sámi and Finnish but lost the first one. I speak only Finnish. How can my children find their voice if they don't know their mother tongue?*

- The Sámi have always been multilingual. Even though many Sámi have lost their language, the Sámi don't fall silent.

9. Ethnostress

- *Don't panic! It's up to you to ensure that Sámi culture, language and traditions survive. No pressure.*

- Sámi languages and culture are endangered. From the moment a Sámi child is born, they inherit a responsibility of preserving and reviving their culture. It can be a heavy burden for one individual to carry.

10. Activism and Artivism

- *An island. Standing tall in the middle of a river. This island is moratorium, where laws don't apply. Occupied by brave Sámi warriors. Fighting for their rights with disobedience. Using words and art as their weapon.*

- The Sámi is a nation of peace. Still they have been forced to fight for their survival. Some Sámi fight with words, art and music.

11. The Future Sámi

- *Where do we go from here? Blend in, change our ways or find our voice and prosper? How do we gain our living in the future? What happens to us and the Sámiland?*

- The Sámi can listen and understand the nature, but can they overcome the power of the artificial? What kind of skills will Sámi people need in the future to survive and make most out of what is available? How can ancestral and local knowledge be adapted to meet the demands of the future?

12. Lost Memories

- *When Áddjá is gone, who will tell his story? When he forgets, who will remember?*

- Many aging Sámi have their future in institutional care. Often the connection to their culture is cut off. The languages learned later become forgotten and

independent performance weakens. Nothing in the new environment reminds them of the life they've lived.

After the themes were set, the teams went on creating their games together as a team. The themes were interpreted in different ways and the Sámi participants bought personal experiences and flavors into the themes. In one team, there was even a local schoolteacher turned into a rapper, who made original voice acting to the game in several Sámi languages - the team had "Activism and Artivism" as one of their themes.

Sami Game Jam Games

Altogether, the teams created six games. One of the games was developed for mobile VR headset, one for SteamVR. One game was playable on an android tablet. All of the others were playable on PCs. One project utilized Leap Motion controller and two projects created a custom controller for their games.

Each team took their own take of the themes (Table 1) and mixed their themes in different ways, sometimes one theme dominating more over the other.

Game	Themes
Gufihtara Eallu	Cross-Generational Stories Persistent Stereotypes
Jodus	Border Crossing People The Future Sámi
Lost Memories	Lost Memories Living Outside the Sámiland
Mu Luodda	Ethnostress Ultima Thule
Rievssat	Strangers in Their Own Land The People of Eight Seasons
Saivu	One Nation, Many Languages Activism and Artivism

Table 1: The games from Sami Game Jam, and the themes inspiring their creation.

Game 1: Gufihtara Eallu

Gufihtara Eallu is A story-driven, virtual-reality game, where the player navigates through the wilderness while listening to the story of Kufittar. Kufittar is based on a traditional Sámi story of elves who live in their underground kingdom where all is inverted, and the night has switched with the day. The game is hands-free, interactive items in the game activate when player looks at them. The language options of the game were Northern Sámi, English and Finnish.

Figure 3: A screenshot from *Gufihtara Eallu*.

Game 2: Jođus

Jođus is a game about contemporary Sámi culture: Life on the move between city and country, nature and culture, tradition and technology. The game is played on PC and a custom-made balance board. Standing on a balance board, the player controls the game by leaning towards the left (country) or the right (city) with your body. While moving around, the player pick up items that represent a diversity of Sámi lifestyles - from traditional salmon fishing to reindeer herding helicopters. Life is a balancing act, and Sámi identity is what the player makes it to be for them.
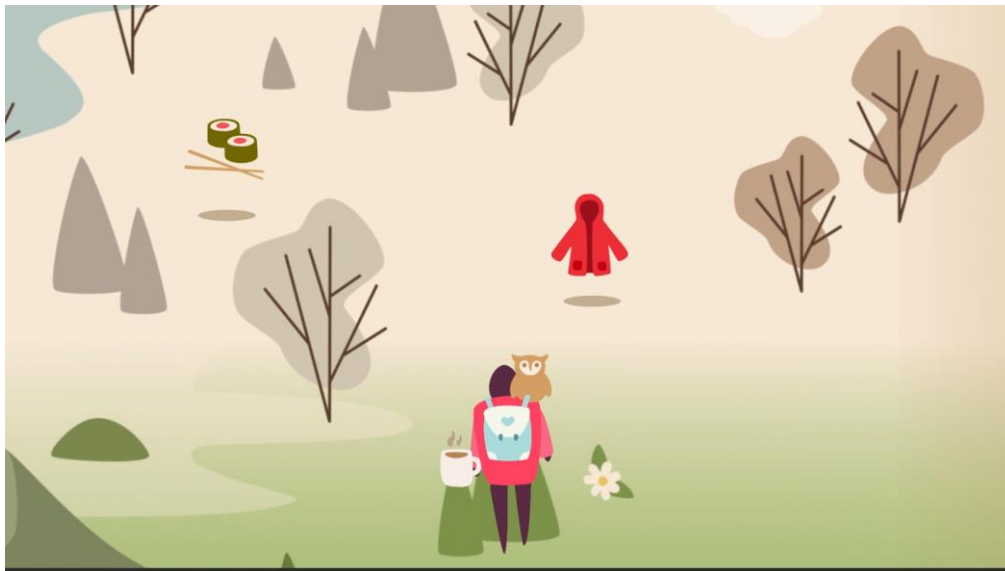

Figure 4: A screenshot of *Jođus*.

Game 3: Lost Memories

Lost Memories explores the things that a Sámi person living in a big city might miss. It also let players travel through a portal from a city apartment to the open lands of Utsjoki. It lets you bring items over from either world. Once the player uses the portal, it slowly shrinks, and they have to make a choice of where you want to be. The game is played with any SteamVR device, in room scale.
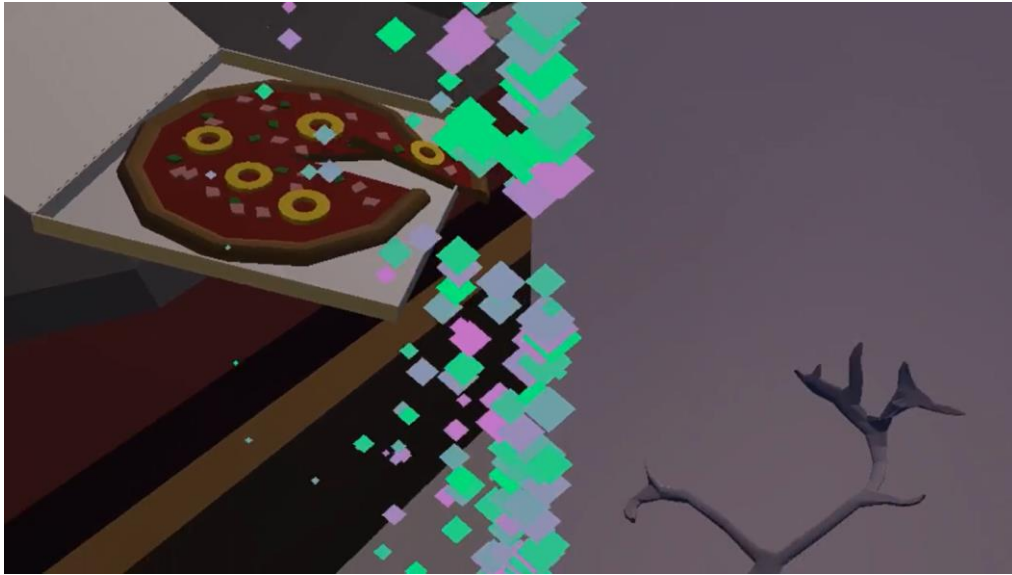
Figure 5: A Screenshot from *Lost Memories*.

Game 4: Mu Luodda

Mu Luodda is a narrative game about the tensions of living Sámi life between the expectations of preserving your own culture and living a good life as an individual. The game is about exploring the rough space between the north and the south, filled with everyday experiences of Sámi people. The spoken language in the game is Northern Sámi. The game is played on PC using the mouse to move around in the scenery.
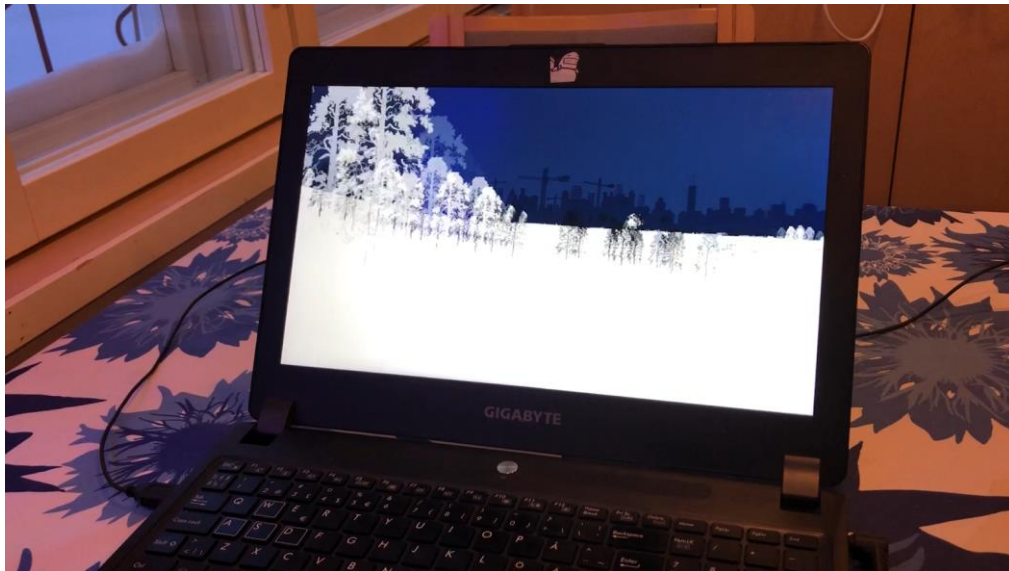

Figure 6: *Mu Luodda* on a laptop at the Sami Game Jam 2018 venue.

Game 5: Rievssat

Rievssat is a short, narrative alternative controller game using leap motion controller and custom-built acceleration pedal. In the game the player controls a willow

ptarmigan (riekko) – a bird native to Northern Europe. By flying through the Sámi land and collecting food, the player experiences the environment's transition throughout the eight seasons. In the game, each season brings in more human interference and challenges the bird has to adapt to. Trees are being cut down, new buildings rise, taking up the bird's space and applying new rules to its natural habitat. The game tries to mediate how bird feels in its native land with outside influence: as if the bird doesn't belong in its own homeland.

Figure 7: A screenshot from *Rievssat*.

Game 6: Saivu

Saivu is a game about a legend of Skaimmadas, the keeper of waters. The player swipes the currents to guide your swarm of fishes and at the same time learn to write Northern Sámi words by collecting letters and avoiding environmental dangers. The audio track includes lyrics also in Inari Sámi and Skolt Sámi languages and you can also hear Yoik, the traditional Sámi way of singing. Players goal is to keep the fish alive to avoid the wrath of the Skaimmadas. The game is played on an android tablet.
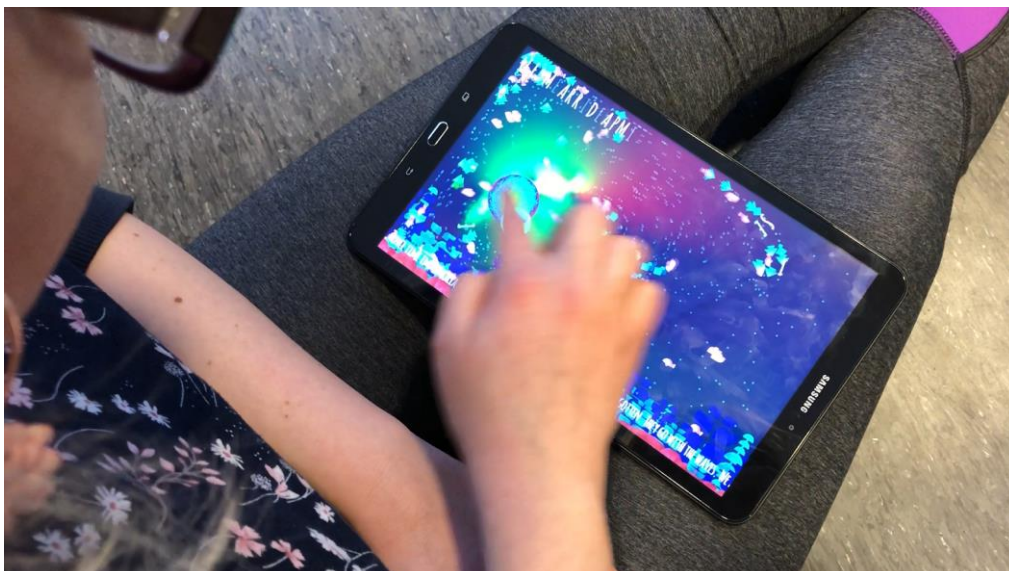
Figure 8: The Sami Game Jam *Saivu* being played by
one of the team members.

At the end of the jam, the games were published on Itch.io (https://itch.io/jam/sami-game-jam) and presented to the local audience. There was also a plan to build a traveling exhibition to showcase the games in different museums around the world, but this plan has not yet been realized.

Observations and Reflections

Altogether, the jam was successful, and six games were born. These six games are among the very few computer games ever published on Sámi topics or in Sámi languages. The games also tackled the Sámi topics in non-cliché ways: they were based on the curated themes that directed the design processes away from the typical icons of Sámi and gave voice to the modern indigenous. The content of games born reflects the everyday world the participating Sámi live. All three Sámi languages spoken in Finland were present in the games either spoken or written, for example in Saivu, the Skaimmadas (the fish) speaks Inari Sámi, Skolt Sámi and Northern Sámi. Furthermore, the traditional way of singing, Yoik, and traditional storytelling can be seen as Sámi intangible heritage (Sámediggi 2019). In the same game, there is also Yoik that was made at the jam. The team of *Gufihtara Eallu* used a traditional Sámi story as a storyline so that player could play through one traditional story of Gufihtar. On these levels, the event design of Sami Game Jam worked well within the framework of Sámi Pedagogy.

The event also created a spark within the local participants. In two teams, there were also adolescent participants, who learned a lot on game development and got inspired to create more games at their home village. Furthermore, they learned communicating in English and collaborate with the game jamming community. After the game jam the adolescent participants said that they miss the most the communality of the event and they want to experience it again. Also, one local Sámi, who had programmer background, learned a lot on game programming and production during the jam.

The event was also a learning experience for the rest of the participants. The participants learned about the history of Sámi, Sámi languages, experiences of the contemporary every-day lives of Sámi as well as got to meet locals and hear their personal stories and experiences in their diversity. Some of the Sámi participants later reported how only after the jam, they realized something about their own identity. Reflecting their own thoughts and perspectives during this jam was seen as an empowering experience. They felt that they could open up and deal with their personal issues concerning Sámi culture. For example, some of the participants admitted feeling pressure and ethnostress of living like the idea of a proper Sámi. After the game jam they had found the courage to act more as they felt and not how they thought it was expected. They also saw that the Sámi culture is not a museum culture: it can be as vivid as life and the daily routines, such as gaming, can be a part of the culture today. Especially the younger participants saw the "coolness" in their everyday lives when the cultural elements were built in digital platforms collectively.

Even though the jam was anticipated to be different from previous experiences tackling difficult topics, the stress that was present in the event surprised the organizers. As in regular game jams, the topics are not this delicate, and the game makers get a lot of freedom in choosing their teams and interpreting vague themes: the atmosphere is usually relaxed. Additional layer of stress was formed due to the plans of international exhibition presenting these exact games – would they be representable and politically correct? The frame of the exhibition shadowed some

participants more than others. For instance, one participant refused to have their full name on the potential exhibition, as he was not satisfied of the outcome of their team. Additionally, in the beginning of the jam, one local adult participant quit as the they had conflicting expectations of the event's format.

The stress within the event also impacted the organizers. Sami Game Jam had two main organizers who both had background in Sámi: one was brought up within the local Sámi community and the other organizer had vague traits in their family histories: traces of language, habits and social activities dating one and more generations back – but no clear Sámi identity. In the end, the vague history became overbearing and confusing as at the same time all the stress of the non-Sámi participants were expressed almost solely to this organizer. Potentially the participants did not want to express their negative feedback to the local host, who was closer to the difficult topics. As a result, the other organizer was left alone with the negative feedback and got burdened by it to the point that they had to take almost a week off to deal with the emotional baggage. It was too much to handle the vague roots and mourning of the "lost memories", as well as take care of the concerns of the stressed-out participants. In the end, there were no outlets or ways to express these emotions while having to deal with all practical arrangements. On top of this, the both organizers had taxing work year, so the conditions were not ideal for either to deal with additional baggage. The experience highlighted the need of a safety network also for the organizers of game jams of difficult topics.

Furthermore, it was interesting how in the preparation and aftermath of the event exposed the attitudes of the public: some sponsors were not interested in the event as they were afraid how political it might be perceived by the public or their stakeholders. Despite the efforts, international press did not catch the event and the national press had only very little coverage. In the end, it seems that the Sami Game Jam was ambitious in its all goals: publicity, educating on Sámi topics and making impact on the early steps of Sámi computer games. The latter goal was definitely met, and the stress of the participants was relieved already on the mid-jam – leaving them inspired and touched by the process of making the jam games and working in multidisciplinary teams.

The jam produced rich experiences to all parties. It is most probable, that the struggles cannot be completely avoided due to the underlying nature of the issue at hand. However, the game making process was beneficial to the Sámi community in many unexpected ways. For example, some of the Sámi participants saw that game jamming could be seen as a part of the truth and reconciliation process for Sámi people in Finland. Furthermore, after the game jam some of the Sámi participants started seeing games as an artform and a platform for cultural expression.

Based on the case of Sami Game Jam 2018, game jams seem to fit well to the Sámi Pedagogy: jams are social and communal, working on pieces that are based on play and stories. Just like in many other game jams, also at Sami Game Jam, the participants shared knowledge and helped each other out. The traditional tent, lávvu, as a place for sharing experiences brought deeper level to the discussions of design decisions and framed the experience by providing a window to traditional ways of living as well as intimate and atmospheric space for sharing.

DISCUSSION

Sami Game Jam was an interesting and intense experience. Six different games were created in six teams consisted of experienced game developers and local Sámi, the indigenous people of Europe. The games explored 12 predefined themes and were

built on various platforms: VR, PC and mobile. The games represented topics fitting to the contemporary Sámi cultures, including for instance ethnostress, that was also present in the jam experience. The jam was somewhat stressful to all parties: the non-Sámi participants were concerned or even overwhelmed by the themes and the local participants as well as the organizers were stressed about the topics in general. Many of the Sámi participants said during the game jam that they have felt pressure from their communities. They felt that discussing and sharing helped them to deal with ethnostress. However, the experience was very useful and opened up eyes, not only for the outsiders, but also for the ones with Sámi background.

The format fits well in the palette of Sámi Pedagogy and the mixture of local ways was not in conflict with jamming culture. In the end, the six games produced in multidisciplinary and multinational teams made history in the narrative of the contemporary Sámi art: they are among the very few games ever exploring Sámi culture and language. They also shared a learning experience where non-formal social interactions blurred the borders between cultures. Some of the Sámi participants were happy to meet people who shared their interest in games and the non-indigenous participants felt that they were part of something meaningful. Furthermore, the games captured pieces of Sámi intangible heritage (Sámediggi 2019) as a part of the modern culture of today's Sámi.

This study collected data through observations of both authors. Our observations may vary for the intense nature of this Game Jam. We cannot exclude the possibility of observing things differently depending on the current mood or the amount of tiredness. The results are a compromise of our observations and interpretations. This was also the first game jam with the Sámi people. This kind of experiment is hard or even impossible to repeat as such. However, these findings encourage to explore games in indigenous education context more and develop the format from the Sámi Pedagogy point of view.

CONCLUSION

In this paper, we have explored how the format of game jams fits to the Sámi Pedagogy and the how it can bring together indigenous people and experienced game makers as well as what kind of games resulted from the event. The jam produced six games, which successfully explored the contemporary themes in Sámi cultures avoiding cultural clichés. The games also captured glimpses of Sámi intangible heritage. The event was a great platform for learning and reflection, and even though it was a stressful experience, it was a good fit for the development of Sámi Pedagogy.

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