



TEACHING HISTORY THROUGH GAME-BASED LEARNING

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Module: Game-Based Playful Learning & History Use
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Introduction

Playful learning and Game-Based Playful learning is earning its merits across the curriculum, as a great way to inspire children to seek new knowledge through play. Learning through play is a way for children to increase their knowledge of a subject, but also to develop their 21st-century skills through collaboration. Playful learning have shown to create more meaning for children, make them engage more actively in what they are pursuing and develop their social skills (Foundation, 2017). Using Game-Based Playful learning during class have been shown to influence at-risk student, who have had problems fitting in socially with the rest of the class. These students have had positive social experiences with their peers through online collaboration. The rest of the students participating in the course showed an increase in intrinsic motivation (Hanghøj, 2018).

One of the goals when teaching history to students is for them to learn to use history, in a way that makes them reflect on their own and others history (EMU, 2020). By using a local environment which they traverse most days, or at least have the possibility to do so, I hope to make the reflect on the history of where they are growing up. Using “open school” principles have in other areas shown to get students more involved in their local areas (Ibsen, 2018).

Constructionism is the theory that students learn better when they are involved in creating and working with the subject being taught (Constructionism and Constructivism, 2020). Constructionism aligns well with the thoughts of Celestin Freinet, who believed that an open school, where the students are involved in local businesses and produce knowledge and information themselves, heightened student learning (Lindberg, 1998).

Using Game-Based learning is as mentioned earlier a great way for students to work together and creating new thing and using their problem-solving skills helps students learn and remember better. With these thoughts in mind I have decided on the following research question for my essay:

“How does one plan, implement, evaluate, and develop a course about local history through principles from game-based playful learning, where the students work with Minecraft and video editing?”

In the following I will elaborate on the importance of this question and give a practical example of how I have tried to implement a course for a class of fourth grade students. In the end a will evaluate and discuss my findings.

Relevance of the study

The assignment is a combination of various modules, as such it has a wide array of relevance for the public school. As for Game-Based learning students working in teams develop their technical knowhow using the tools in Minecraft and they develop their 21st century skills which are imperative when working in collaboration with others. From a more historic perspective the students learn something of the chronology of the town, in which they are being raised and they learn to use history to create something new and develop their own understanding of history.

21st century skills

21st century skills are the skills believed to be needed by students when they finish school, to help them become viable candidates in a society as fast-paced as the internet age. New information is always available and staying up to date with said information is a lifelong task for anyone, but the skills needed to stay up to date, is something students carry with them, hence the importance for teaching the skills, as much as for expanding the knowledge of different practical areas.

21st century skills consist of 12 different skills which can be divided into three different groups, all of which are important both in school and whichever employment they may seek later in life. The three groups are Learning Skills, Literacy Skills and Life Skills (Stauffer, 2020). The learning skills consist of critical thinking, creativity, collaboration and communication, also called the four C's. Critical thinking is finding solutions to complex problems, something which is needed in many different jobs in the modern world, it is a skill used when students must figure stuff out for themselves, without a teacher present all the time. Critical thinking is a problem-solving skill, which is needed for most tasks, whether it is for school or for a job. Creativity is the means for adaptation. In a shifting world the description of the job you do may change, creativity helps adapt to the changing environment and is also an important problem-solving skill. Collaboration is the ability to work with others and is very closely related to the next skill, which is communication, the ability to speak to others. Teamwork is almost essential in all jobs today, from making sure a restaurant is prepped and ready to serve, to ensuring that a fiscal report is handed in at the right time. Collaboration and communication are two skills essential to teamwork (Stauffer, 2020).

The second group of skills in 21st century skills are the literacy skills, they are information literacy, media literacy and technology literacy. Information literacy is the skill where students learn to decipher the information they are given in various forms, such as models or texts. Information literacy is also the ability to decipher between what is true and what is not, what is a valid source of information. With the constant bombardment of information everyone is subjected to today, this skill is more important than ever, what with the uprising of "fake news", and even the use of that term is subject to further scrutiny when someone uses it. Media literacy is the ability to recognise the outlets in which students are receiving their information, e.g., is this a letter or an instruction manual. Technology literacy is the knowledge of how the technologies which are used during the day function. Game-Based learning is very useful because programming is sometimes needed to solve the task at hand (Stauffer, 2020).

The third group of 21st century skills are the life skills, they are flexibility, leadership, initiative, productivity and social skills. Flexibility is one of the more challenging skills to acquire because it may sometimes require, that the student can admit to being wrong, and that other student's way of doing things may be better. Leadership is the ability to govern a team working together and to keep the team's common goals within view. Initiative is the ability to engage and start projects and implement ideas. Productivity is the ability to get things done, regardless of the many distractions encountered along the way to your goal. Social skills are simply the very complex ability to meet new people and know what signals you are sending

through the way you act. To develop their social skills, students need to learn about manners, politeness, small talk and etiquette.

Many of the skills mentioned above can be trained through playful learning and games, where students work in teams to solve tasks of varying nature. How these skills are used in the task I designed for the students will be elaborated upon later in the assignment.

History Use

History have many different uses and often when we use history, we do so with various agendas in mind. Whether this agenda is political, to seek information, as entertainment, or to grow as individuals, does not matter, we are use history none the less. When we use history, we do so, using the artefacts of the lived or recollected past, these artefacts may be in the form of pictures, texts, memorials, cities, tradition, behaviour, norms values and so forth. The collection of all these artefacts is what we refer to as our historical culture, when we use history, we do so through the application of our historical culture. The most basic form of history use, is when we walk through town, buying a cup of coffee, usually the town that surround us is filled with buildings much older than ourselves, and the money we pay our coffee with is riddled with buildings and people, some of which are long gone (Pietras, 2016).

History use comes as mentioned before in various forms, these forms are guided through what need there is for history in the given situation. The need then decides the use, user and function of the history. If the need is research and figure out what happened, the history use is scientific, the users will be historians or history teachers and the function will be to either verify, falsify or interpret history. A history use used by everyone would be to recollect something. The use is existential, and the function is orient oneself or create meaning or connection between events. Repressing something is also actively not using history, and therefore is also in a way using history. This can be done by partially by intellectuals or politicians and serves the function to rationalise or legitimise an action. As a final point history is also being used commercially. Commercial use has the need, to increase economic benefits of a product. This use can come in various forms where history may be used to better market a product, or perhaps be part of the product itself. To better market a product, companies can boast that the have been around for a long time like Carlsberg from 1883 or they can use a fictional history, where grandpa remembers receiving the same candy from his grandfather, he is now giving to his grandson. When history is used commercially, it can also be done by selling history itself through games, movies and books, of varying historical accuracy (Pietras, 2016).

History use is one of the competence areas students must have knowledge of when they are through with school. Young students must know how we as people are affected by the history that comes before us. Older students must have the same competence, but must be able to reflect on their own, and others, historical recollections in time and space. Before leaving school, students must be able to explain the correlation between the past, the present and the future.

Reflection

To investigate my research question, I planned and executed a course for a fourth grade in history. In my approach to the subject, I decided to introduce the students to some of the buildings which were located around the center of their town, but which had been torn down approximately 120 years ago. I contacted the local school and secured six lectures where I could run my course. A preliminary rundown of how I would spend my time is found in [appendix 1](#), in the following I will present some of the lessons and what thoughts lie behind the preparations.

Lesson One

Lesson One starts with a short presentation of the assignment and the sorting of the students into teams. I first give a general description of the assignment, then we make the teams and finally the students get the rest of the assignment. The assignment can be seen in [appendix 2](#). First, I present the assignment in general terms, where the students must work in teams, to create a building which could be found in their hometown 120 years ago. Secondly, I divide the class into teams, the teams are created to ensure, everyone knows their job, when they are sent out to work on their assignment in their groups. The teams will consist of four to five members, a group leader, two builders and one or two researchers. The leader's job is to keep and overview of how every team member is doing on their tasks and if they are on schedule. The leader also must contact me if any problems arise during the problem-solving phase. The builders oversee building, as the name would suggest, they chose which blocks to use, when creating the building from the photographs they have been handed. The researcher(s) oversee the second phase of the team's assignment, they must find out something about the building and the function it served at that time.

The creation of the teams is done in a mixture, of the students creating their own teams, from the different roles the teams need, and me and their regular teacher tweaking the teams to make sure they function based on the students skill level. The reason for doing it like this is to both give the students some say into who they want to work with to create motivation, and to make sure they function as a team (Nielsen, 2009). I crate the teams with the specific roles, to make sure everyone knows what they are doing at specific times and to reduce the amount of interference in the problem-solving phase (Microsoft, 2020). The students working in teams with specific roles, is also a great way for students to develop and practice some of their 21st skills such as collaboration, communication and their social skills (Microsoft, 2020).

Lesson four

Be the fourth lesson most of the students are heavily engaged in their production of their buildings and some research have been done. Currently, me and their regular teacher starts to engage the students in their video productions. Very few of the students have had any previous experience with creating videos, only two students have tried this before, luckily, the students are on different teams so they carry this assignment for their respective teams, we just guide them in the knowledge they should share during their video production. There is a total of four teams in the class, the other two teams we help them use WeVideo on Skoletube.dk to create their production. The program WeVideo is very intuitive and easy to use and with a bit of help both in production and in what to say when making a video, all groups finished their videos. A link to the productions can be found in [appendix 3](#).

Evaluation

Structure

The approach to creating the course went well, most of the students were engaged in the assignment using Minecraft to learn something of the history of their hometown. It was necessary to be very specific about

what was expected of the students when they were engaging in creating their production, as both specified by Microsoft Educator Center (Microsoft, 2020) and in chapter one of the book "Game-based Learning and the Power of Play" (Ashwell, 2016). The strict direction and what is expected of the students have previously proved to be necessary for students to engage in the assignment without too much interference from the playful nature of using commercial games in education. This worked out well, the students played a bit during the first lesson, where they were building from their imagination, which were not frowned upon, but when I showed up and guided them in how they could make their productions, the students started working together to create their selected buildings.

Video production

The video production seemed a bit too much for most of the students in the class, but they are only fourth graders ranging between the ages of ten and eleven, so my own evaluation is that maybe we should have stuck to producing the building and then perhaps a small plenary playthrough of their creation, where one team member shows the building while another presents their research findings.

Research

For the research part of the assignment, I had found some pages with varying information about both the buildings they were working with specifically, and of how those buildings were operated and used 120 years ago. The material I had found for the students proved much too difficult for most of the groups. As a response to this I made small impromptu presentations for each group, about both the specific building and how they were operated in the past.

21st century skills

The reason for the course was for the students to practice their 21st century skills. Through the course most of the students have had to use to a varying degree, several of these skills. Creativity and critical thinking have been used by the builders, when constructing the buildings. The pictures they were given, were grayscale, so the students had to use critical thinking and creativity to find blocks which they felt represented the pictures best. The researcher has trained their information and media literacy through their research of various texts and figuring out how to present them in their production. The leader must, to a certain extent, use all these skills, to keep an eye on how the production is going and help where it is needed. All the students have, at a varying degree, used the skills collaboration, communication, flexibility, initiative, productivity and social skills, because all of these are necessary to function in a team.

History Use

The course itself is not designed to teach the students exactly what history use is, it is designed to have the use history to make their creation. The course alone is not enough to teach the students what history use is, but it is a great steppingstone for a subject that may seem a bit abstract for students of a young age, because you can refer to the assignment later and explain to them how they have used history to create their productions. The concept of history use, as being something we use to a varying degree and which surrounds at most times, is as mentioned before somewhat abstract. When our Prime Minister refers to previous actions against Covid-20 and use what worked as examples of what we should do now, to have the best outcome for the future, she is using recent history, to rationalize and legitimize actions taken in the present, to prepare us for the future. This might be a bit of a mouthful for an eleven-year-old, but when we explain how a presentation they did about the past, is history use, it becomes more tangible.

For the future

For future courses I need to make sure, the students have both the time and the knowledge needed, to lift the assignment. I created the course a bit too difficult for the students it was intended for, both in terms of the material they were given and of the amount of work they had to put into it. As mentioned earlier the video production may have been beyond the grasp of most students and for further courses, a presentation would be more appropriate, or give them extra time for the production.

Conclusion

I set out to create a course using the principles of game-based playful learning to enhance the students' understanding of their local history and evaluate on it for future uses. The course in its entirety went well and the students worked hard creating their buildings in Minecraft. They learned about the history of their local environment and of how school, postal service and innkeeping worked 120 years ago. They learned these things using Minecraft and the principles of playful learning to engage them. Along with their new knowledge of their local history, they practiced and developed on some of the skills considered important in the information age, where workers must adapt to an everchanging environment. In my evaluation I listed different things that went right and wrong during the course, and elaborated on such. Summarized the things that worked well, was a good structure to remove interference from solving the task, training 21st century skills through game-based teamwork and knowledge of how to use history. The things that did not go so well was too little time for video production and the information material being too difficult for the students.

As a final note game-based learning using Minecraft proved to be a great motivational factor for all the students, who were very engaged during the problem-solving phase, according to their regular teacher. Concurrently game-based learning also proved a great way for the students to practice their 21st century skills.

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Appendices

Appendix 1 – Lesson plan

Lesson	Activities	Organisation	Materials	Goals
Lesson 1	A short introduction to the task at hand and how I expect the students to solve the task.	I'll introduce the task orally and the students will be handed out assignments depending on which building they want to work with.	We will all need computers and access to Minecraft Education	The students are prepared to solve the task I have given them.
Lesson 2	The students work with their research and construction, their normal teacher and I walk between the teams guiding them.	The students work on their computers.	We will all need computers and access to Minecraft Education	The main goal is for the students to gain a better technical aptitude, develop their 21 st century skills and learn something of their local history.
Lesson 3	The students work with their research and construction, their normal teacher and I walk between the teams guiding them.	The students work on their computers.	We will all need computers and access to Minecraft Education	The main goal is for the students to gain a better technical aptitude, develop their 21 st century skills and learn something of their local history.
Lesson 4	The teacher and I walk among the groups and help the students finish their buildings and research and prepare them for a video presentation.	The students work on their computers.	We will all need computers and access to Minecraft Education	The main goal is for the students to gain a better technical aptitude, develop their 21 st century skills and learn something of their local history.
Lesson 5	The teacher and I walk among the groups and help the students finish their buildings and research and prepare them for a video presentation.	The students work on their computers.	We will all need computers and access to Minecraft Education	The main goal is for the students to gain a better technical aptitude, develop their 21 st century skills and learn something of their local history.

Lesson 6	The students show of their video productions.	The presentation is done in plenary.	We need a smartboard and a laptop, I need a USB storage for their productions.	The main goal is for the students to gain a better technical aptitude, develop their 21 st century skills and learn something of their local history.
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Appendix 2 – Student Assignment

Opgaven

Til underviser:

Eleverne inddeles i grupper af fire eller fem, som skal arbejde sammen om at bygge en bygning i Minecraft. Holdene skal have en holdleder, som står for kontakt til underviser og sørger for at de forskellige ting bliver lavet. To der arbejder med materialer og bygning. En eller to der arbejder med research omkring bygningerne.

Præsentation:

I skal vælge en bygning at arbejde med, ud af de tre valgmuligheder; skolen, posthuset, kroen. Ud fra hvilken bygning jeres hold vælger, får i udleveret billeder af bygningen i skal så forsøge at genskabe bygningen i Minecraft.

Når I bygger bygningen, skal I tænke over hvilke farver de materialer i bruger har, billederne er i sort/hvid, men væggene var typisk i hvid eller lys grå og resten har været i mørke farver.

Når I skal præsentere jeres bygning, skal i have en kort præsentation klar omkring jeres bygning og hvordan en bygningen blev brugt i starten af 1900-tallet.

Til Underviser:

Eleverne får udleveret en af de tre følgende opgaver, alt efter hvilken bygning de vælger at arbejde med.

Opgaverne:

Skolen(Borbergade 31)

Ud fra billederne under, skal i nu arbejde i Minecraft på at bygge skolen som den er vist på billederne. I skal tænke over hvilke farver i bruger til at bygge skolen, lyse vægge, mørkt stråagtigt tag, mørke døre og vinduer. I skal finde billeder online af hvordan en skole så ud indvendig, også lave skolen indvendig som I kunne forestille jer den så ud.

Når I har bygget skolen færdig, skal I lave en kort video som præsenterer jeres bygning og fortæller nogle detaljer om hvordan det var at gå i skole omkring 1900-tallet.





Til at løse opgaven om at gå i skole for 100ish år siden:

Posthuset(Borgergade 2)

Ud fra billederne under, skal i nu arbejde i Minecraft på at bygge skolen som den er vist på billederne. I skal tænke over hvilke farver i bruger til at bygge skolen, lyse vægge, grå tag, mørke døre og vinduer. I skal finde billeder online af hvordan et gammelt posthus så ud også bygge den op indvendig som I kunne forestille jer den så ud.

Når I har bygget posthuset færdig, skal I lave en kort video som præsenterer jeres bygning og fortæller nogle detaljer om hvordan postvæsenet fungerede i 1900-tallet.



Kroen med stald (Borgergade 1 og 3)

Ud fra billederne under, skal i nu arbejde i Minecraft på at bygge skolen som den er vist på billederne. I skal tænke over hvilke farver i bruger til at bygge skolen, lyse vægge, grå tag, mørke døre og vinduer. I skal finde billeder online af hvordan en gammel kro så ud også bygge den op indvendig som I kunne forestille jer den så ud.

Når I har bygget kroen færdig, skal I lave en kort video som præsenterer jeres bygning og fortæller nogle detaljer om hvordan en kro fungerede i 1900-tallet. Den gamle kro havde f.eks. sine egne staldbygninger til dyr.





Kroen set oppefra, den første bygning er stalden(avlsbygning), den næste er selve kroen. Husk at spørge hvis i har brug for hjælp 😊

Appendix 3 – Student Production

Hold 1 – Skolen

<https://www.skoletube.dk/video/6264334/29313dfff837b5bde0d2dbb0ef4d9ca3>

Hold 2 – Kro 1

<https://www.skoletube.dk/video/6264342/0b9ab34d92f4205aaad2de58b79ff845>

Hold 3 – Kro 2

<https://www.skoletube.dk/video/6264355/ca4fc03ee8c460df9b7919d73bafc559>

Hold 4 – Posthus

<https://www.skoletube.dk/video/6264430/f3d62d190c21eb3ef0683ec1bf5ec91c>