Computation & Culture in a Digital World : Discussion 3 - Video Games and Learning

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Video Game Project

Group 1

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Game (Geography)

This is team bases online game. You are an alien from space looking for pieces of your broken spaceship to return home with 6 teammates.

Objective

- --> You must assemble a team of 7, with a single alien on each continent. Every continent holds one of the seven pieces of the spaceship.
- --> There will be more than one team of seven all working towards the same goal to find their spaceship. The team that works together to find their ship the fastest will win the game.

Start

--> you may choose a easy, medium, or hard level of game play with the questions increasing in difficulty respectively.

Game play

- --> every continent begins partially revealed with the remainder of the map covered in a fog
- --> you start with a single hint that will lead you to a town where you will have to answer a question of the surrounding geographic region to move on to the next hint
- --> if you cannot answer a question correctly, you must explore the surrounding region and ask people scattered through your continent to find the answer or you may not advance to the next region. When you answer a question correctly, the next region is made visible and the fog lifted from the map.
- --> once you have visited every region of your continent and successfully answered all of the geographically based questions, you will be lead to the piece of your spaceship.
- --> You may help your 6 other team mates to answer the questions pertaining to their regions
- --> all of your team has found the seven pieces, your spaceship is assembled and you venture up through the different layers of the atmosphere
- --> to move to the next layer of atmosphere, a test is given that regards the information that your whole team has retrieved on Earth
- --> Once completing each test, you have successfully exited the Earth's atmosphere

Ending (story)

--> Once you have exited the Earth's atmosphere, you realize that you have learned too much about this beautiful planet to leave and decided to return back to Earth.

Triggers & Technical aspects of this game

- 1) Interactive learning This game indulges the player into a world of facts and education while being able to explore different regions and talk to various people to look for information. It creates an interactive and very busy/lively surface that makes learning about geography a fun process.
- 2) Group based You must put together a team of 7 and work together to find the pieces of your ship, making this a very group based game. Your teammates are able to help you to find the answers you need and also you are able to help them.
- 3) Positive Feedback When you answer a question correctly, you are rewarded by being lead to the next region, or next hint to ultimately arrive at the piece your spaceship. After assembling your spaceship you are given another award by being able to exit the atmosphere with every passed test and you are given the satisfaction of being deemed the winners of the game if you are the first group to finish.

- 4) Monitor Your Progress/reviews easily As you retrieve information from your journey around your continent, you can view any of your correctly answered questions and gathered information on your start menu. Also, as you advance through your continent, the map is slowly revealed to you with the whole globe being revealed at the end of the game.
- 5) Error correction mechanism If you get a question wrong, you must go back to the surrounding region and explore/ask people for information of the geography of that region.
- 6) Increases Curiosity The nature of this interactive video game will increase the curiosity of students to learn all of the information because without the information, it is impossible to continue on your quest.

This game will ultimately allow students to learn geography in a fun and exciting manner because they are forced to learn quickly to win the game. Also, this game is made interesting because there can be hundreds of different teams competing for the same goal. The idea of exploring each continent also increases the "fun" level of the game as you can see all of the most important geographic aspects of our diverse planet.

Group 2

Adam G (presenter), Mike H (Wiki) Yiju H(scribe) Michele E.(presenter)

Game (architecture)

We had two settings, sandbox and story mode

Sandbox

Slide 4.0

We incorporate a first person shooter (3D) with a level editor.

Players are given a plot of land and unlimited materials and they can build whatever they want with the materials and when they are finished, they can play the level

Unstable buildings can collapse Tutorial given Can set your own pace

Story Mode

You will have a certain amount of materials and will have to get to a certain point on the map

Example: different materials work on different environments

Example: wooden blocks will float in water

There will be a shop where you can purchase new materials or upgrades. You get money based on how well you performed on the previous level. Upgrades can range from a new hat for your player to make him look fashionable or new materials to make the next levels easier. (Feedback Loop!) An example would be purchasing steel beams to make buildings sturdy.

Creativity is needed on the harder levels

Certain levels are restricted to a certain tool or material (but player doesn't know what it is)

Example: Block man

Involves first person shooter (example: when you beat a level, you can play in it afterwards)

Monitors players progress so he can see how far he has come.

Group 3

Sean C., Brandon L., Kristen M., Chris H.

Game: Rocketeering

In this game, player(s) not only experience how to build and construct rockets, but will also be able to utilize their rockets to explore and face challenges in space. The mission of this game is to build the most efficient rocket one can produce with the given materials, and the more efficient the rocket is, the better the rewards. This game is recommended for those that are at least 17 years old due to the physics

questions one may encounter when playing the story mode. This game contains a story mode with three levels of difficulty. In addition, the game comes with an online multiplayer game where players may interact each others and compete to see who can build the most fast and efficient rocket. For players keen on improving their skills, the game offers a theater mode where one may watch there gameplay in either first or third person mode.

STEM

This game is perfect for one who wishes to excel in the sciences. While constructing the rocket, the player learns about the qualities of each material and how to assemble them properly. After the rocket is completed, there will be many challenges and obstacles that not only stimulate the mind, but also allows the player to become familiar with the outerspace environment. In addition to that, the player learns about the physics surrounding not only our world, but how physics changes in outerspace.

Why this game will sell

This game is not only stimulating and enjoyable, it helps teenagers and adults understand the wonders in outerspace as well as the principles and laws behind them. The online multiplayer portion of the game allows players to connect and interact which adds a whole new dimension to the game. This game forces the players to remember the things they have learned because those who do not will fall behind and lose to their opponents.

Group 4

Pratik D., Kathrine D., Mark H., Josh Y., Christophe L.

Game: Composing Music

In our game, we are going to be teaching how music works. The game will take place in three seperate stages.

Stage One

This first stage of our game is a tutorial that focuses on teaching the player the different notes without actually bringing up the name of the notes. In order to accomplish this, we have an interactive keyboard that is multicolored and lights up. When the key lights up, this is an indication to the player to press the button. At that momment, the player will here a sound. Through this process, players will be able to attribute colors to the sounds. This stage is mainly a beginning of the learning process.

The Lessons/Stage Two

This next stage is a bit more difficult since it now has examples in the form of songs which require memorization of the sounds to a certain extent and that we be able to play the instrument accordingly. As the player progresses, the difficulty and complexity of the songs increase and it teaches the player to harmonize sounds together. At the end of the single player mode, the player will be prompted to compose their own piece which can be an assortement of any musical instrument.

Online Gaming

The most difficult stage is most definitely the online one. In this portion, people will be able to form virtual bands in which they each take the position of a certain instrument and then proceed to play together. They can also download songs created by the community of players. With the help of the community, we hope that the online portion of this game will increase much quicker than we could do alone. For safety reasons, we will be monitoring chat rooms and give players a function to report anyone using foul language or bothering other with the help of screenshots.

Learning Triggers

The various learning triggers are all addressed within our game.

- Since music no matter how good(or bad) it is, is music at the end of the day, there is no way to entirely lose at the composing.
 - -In addition, game over's will never happen, we will simply prompt the player to continue.

- -We will also be implementing applause at every success as positive reinforcement to the player and to get them to continue playign and learning.
- -The game is essentially a huge interactive experience teaching players to recognize sounds and attrbuting them to notes, teaching them about which sounds work well together and how to interact with other people.
- -Another feature that triggers learning is the ability to moniter their progress. As they get closer to finishing a level, they get closer to finishing a picture. On the easier levels, it only requires a few pieces but as they levels get harder, it can easily exceed one hundred since we will be asking the players to play out entire songs.
- -We also allow the players to move at their own pace since they can replay all the leveles they previously completed but can also download new beginner levels if they want to get better at the basics.
- -Finnaly, through a point system, they will be able to purchase additional equipement such as instruments or pedals for a piano that can not only increase the difficulty but allow higher point ammounts.

Additional Notes

When listening to their compositions, they will be given a visual show that resembles what windows media player does when listening to music.

We do not plan on putting our game into school curriculum's because we don't want people to be forced to play our game. Instead, we want people who are truly interested in learning music to play our game.