

Monster Wheel

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Abstract

Monster Wheel is an icebreaker for video conferencing between middle school classes. The game is designed for students to become more comfortable collaborating and sharing with each other and also learn each other's names before a classroom to classroom collaboration.

In the game students in each classroom form a circle around a webcam. The two students from each group that are matched, sitting in front of the webcams, introduce themselves. Then one student will tell the other group to rotate either clockwise or counterclockwise and how many students should rotate past the camera in that direction. The game has special character roles such as the monster and healer that make the game more intriguing.

Keywords

Icebreaker, video conferencing, middle school, collaboration, game, rules

Acknowledgements

Testing Monster Wheel with middle school students would not have been possible without the help of Jeff Plaman from United World College Singapore. I would also like to thank my colleagues at the Harvard Education school who helped me test the first prototype of Monster Wheel.

Introduction

Many teachers today are interested in connecting their classroom with the outside world, however technology and broadband infrastructure hold some barriers on what forms of collaboration are possible. This icebreaker is designed for schools that have the technology and bandwidth to have a videoconference but don't have the have technology and bandwidth for every student to join the conference on their own computer. This design project attempts to answer the question; if you only have one webcam and a projector, how can you create personal interactions and a level of comfort and playfulness while videoconferencing between two groups?

Videoconferencing technology is designed for face-to-face interactions. It is difficult create a meaningful interaction between classrooms when the webcam is shared by a large group of students. These interactions are often awkward and can be scripted taking away from the authenticity of the interaction and potential for learning. Monster Wheel is an icebreaker designed for this scenario. It solves the problem of the lack of personal connection that happens in group to group classroom to classroom videoconferencing interactions.

I began by looking for icebreakers that already existed in the teleconferencing context. I did not find a lot of material. Most of the icebreakers were designed for the corporate setting and would not be intriguing or engaging for middle school students. From my own personal experience facilitating icebreakers for Middle School groups, I knew what made a good icebreaker. They had to be fun, they had to allow for laughs and silliness, and for students to be comfortable making mistakes. My next step in the design process was looking to adapt pre-existing icebreakers for middle schoolers to the classroom to classroom videoconference context.

I did not find icebreakers that would adapt well for the video conference setting and had to work to invent my own scenario. My first concept was building a frame that would be placed in front of the webcam and interacted with by both classes. However, it was not immediately apparent to me how this would be an engaging activity for an entire class and I dropped the idea in search for something else. I then had an idea about placing a rotating webcam in the middle of a group of students. I then wondered instead would it be better to have the students rotate around the camera? This would create an environment where members of each group would be able to participate with a member from the other group in a one-to-one face-to-face interaction while maintaining involvement with the other kids in the group.

First Test of Monster Wheel.

I play tested the first iteration of Monster Wheel with my colleagues from HGSE. Nine HGSE students volunteered to help me test my prototype.

Context and set up:

My colleagues simulated a class in one room and I set up a wizard of oz testing environment in an adjacent room. In one room I set up a tripod with a webcam mounted on top of the tripod. I then connected to Skype and had the conversation projected. The webcam was set up facing away from the screen.

For the wizard of oz test I printed out full page faces of middle school students (see figure 1). I wrote fake names and their fictional interests on the back of the sheets and taped them to an umbrella with the picture facing inwards. I then placed the umbrella behind my laptop so I was able to spin it so each face past directly in front of the webcam. I could then read the names written on the back of the paper.



Figure 1, images used for first play test.

The Script Used:

MONSTER WHEEL RULES and PROTOCOL:

When the testing participants arrived I described the intended audience and intended context:

- ❖ The experiment was designed as an icebreaker for classroom to classroom collaborations
- ❖ It was designed for fourth - eighth graders
- ❖ I explained that many teachers find value in classroom to classroom collaboration but schools often lack the technology and infrastructure required to facilitate simultaneous face to face interactions for all students.
 - These teachers then have to use a single webcam to facilitate collaboration.
- ❖ I told participants that this project was designed as a way to break the ice and learn the names of students in the other class.
- ❖ I also explained that classroom to classroom video conferencing can often be awkward and students can be shy and hesitant to share. This awkwardness makes collaborations, shares, discussions, and projects between distant classrooms more difficult. Therefore there is a need for effective icebreakers designed to make classroom to classroom collaboration smoother, more fun, and more productive.

I then showed and explained a flow chart that I made explaining the rules to testing participants.

Second Test of Monster Wheel.

To prepare for the second test of Monster Wheel I wrote the instruction manual and recruited my friend and colleague Jeff Plaman to help me test monster wheel with the middle school students at United World College Singapore.

For the second test I was interested in knowing both if my instructions were suitable on their own for a teacher to facilitate a Monster Wheel icebreaker and if the Monster Wheel icebreaker would work well with middle school students.

I told Jeff that monster was an icebreaker designed for video conferencing collaborations. he was intrigued because United World college collaborates with International organizations around the world and they thought it would be useful for them to use. I sent him the instructions that I made for Monster wheel and did not provide further details.

The sixth grade class that tested monster wheel knew each other already. In order to simulate not knowing each other's names, instead of introducing themselves as their own name, they introduced themselves as the name of their favorite book character. See figure 2 for images of the interaction and follow the link below to see a copy of the Monster Wheel instructions.

https://docs.google.com/document/d/1CG3VHohDpZv6IrseC8lywCKx_i6FeiMNS6dLLZTathq/edit?usp=sharing



Figure 2. Students at UWCSEA testing Monster Wheel.

Changes between prototypes:

Wrote an instruction manual with scenarios and images

The major change between prototypes was the writing of the instruction manual. I realized that my product was both the Monster Wheel Icebreaker and also the rules to communicate how to play the Monster wheel Icebreaker. Initially I had only provided a flowchart to explain the rules. I realized that I needed much more than just a flow chart. To write the instruction manual I made many images which showed the various scenarios of what could happen in the Monster Wheel game. With those images I include a description of what was happening. Additionally I rewrote the flowchart and included it at the end of the instruction manual to use as a reference.

Used clockwise and counterclockwise instead of right and left

Initially I had had groups communicate which way to rotate by saying rotate right or rotate left. From the first prototype I learned that in the videoconferencing context and in the context of being in a circle, right and left doesn't make any sense. I changed the rules to use clockwise and counterclockwise instead.

Determined who spoke first in a face to face interaction.

During the first interaction it wasn't always clear who spoke first. For the second play test of monster wheel and in the rules I changed it so that the student who asked for the rotation always introduced themselves first to the student who arrived in front of the camera.

Removed ambiguity

I also removed ambiguity from the game. In the first play test it was not clear what happened when the monster asked the "student" in the other class to rotate. By having clear instructions that showed a visual for every interaction scenario, this ambiguity was eliminated.

Removed masks, monster reveal with roar.

Based on advice from Professor Mikael Jakobsson, I decided that it was not necessary to have the monsters wear a mask. As Professor Mikael Jakobsson suggested this made the game easier to implement and allowed it to work in more contexts. In the current version of the game in order to reveal that you are a monster you simply roar when you move past the camera.

Removed sharing interests

I had also initially made the rules so that students would share an interesting fact about themselves when they were in front of the camera for a second time. From the first play test I decided that this complicated the game and removed it.

Added chairs

For the second play test Jeff Plaman decided to put chairs into the game. This was not my idea but it worked extremely well because it made it easier for students to count how many chairs they should move during a rotation.

Created new roles

I have not yet tested these two new roles, but I believe they will add engagement to the game for players who have played before.

The Walrus

- The walrus spreads its *walruseyness* to all players including monsters and healers. Walruseyness can not be removed.
- All walruses and those that have been imbued with walruseyness must act accordingly.

- Acts of walruseyness include showing off your fins, tusks and making walrus sounds.

The Hunter

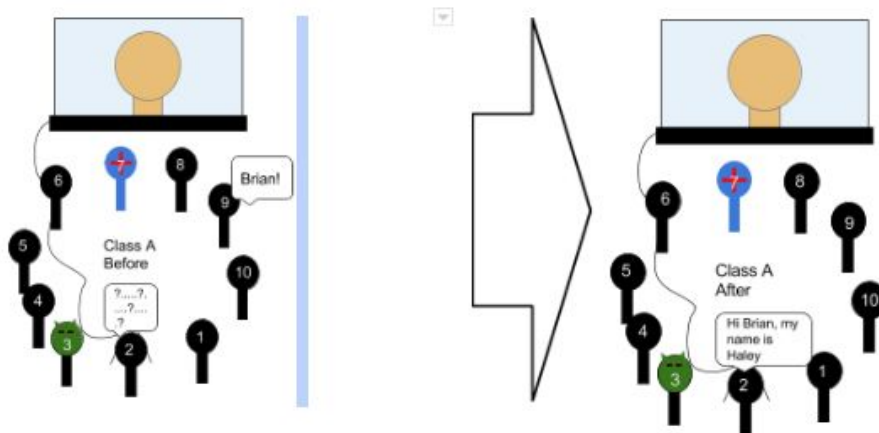
- The hunter can kill a monster.
- The hunter reveals itself when matched with a monster. When matched, the hunter and the monster enter a game of rock-paper-scissor.
 - If the monster wins the hunter loses his/her hunter ability.
 - If the hunter wins the student from the other group playing the monster role is removed from the game.

Surprises

I was not expecting rotating clockwise and counterclockwise to be an entertaining part of the monster Wheel game. From the feedback I received from students they had a lot of fun laughing at each other when they got confused about which way is clockwise and which way is counterclockwise.

What worked well

Students found the game fun because they didn't know when a monster would come up in front of the camera. Additionally, having teams work together to remember names worked well. This allowed students who were not actively in front of the camera to still participate in the game. See figure 3 below.



Remaining challenges and questions

How do you make the game flow faster so more students get an opportunity to sit in front of the camera?

Some students complained that they never got a chance in front of the camera. I don't think this was a problem that made the game not worth while, but I do think that addressing this challenge would improve the game. One way to address this challenge is to increase the number of interactions and rotations by making the game flow faster.

How would the game work in situations where the students have never met before?

I did not have the opportunity to test the game between two Middle School classrooms that had never met before. This is the context for which the game was designed and in the future it would need to be tested.

Feedback from sixth graders who participated in the first play test

What went well in the second playtest?

The concept of this game

We understood the rules of the game and played accordingly

Everything the whole game was very fun and it rocked!

Setting up the game.

The setup of the game

The idea of the game was really creative and worked well for me.

everything

remembering the names

The Idea of the game and the simplicity

I think the format and context of the game worked, and it was really fun!

I think what worked well is that we all understood the game and no one was confused.

that we all participate in moving from chair to chair

that we had to remember people's names but sometimes the audio would mess it up

The way everybody participated and had fun.

Something that worked well was that everybody was listening and focusing on the game and they were also looking at who was introducing themselves. I think this meant that we actually cared about meeting new people.

It was fun and would be a nice icebreaker

The general idea of the game was really good. We all were really into it and worked well together.

Why was it fun?

Just the general rules

To try and remember people's names

the thought of the game and the way it was played. It was really fun.

Learning and memorizing the different names.

The different names and characters

Just the general rules.

just the idea of the game, and how funny it was to watch people move around the chairs, counting together :D

we sometimes went the wrong way

The people we were playing it with

Seeing the reactions of other people throughout the game.

I think what made it fun was that we all didn't want to become a monster.

that when you say your name and then lands on you again they need to guess what your name was

That not everyone knowing their clockwise and counterclockwise which was funny, and being able to communicate over the internet and not in person

The suspense of the other person being a monster

I liked the fact that through the skype call you got to meet people in "another country" using a fun game that introduced you.

It was fun because it was fun to play a game with my class

What didn't work well?

The skype call

Only a few people had a turn in front of the camera

the skype call didn't work as well that people couldn't hear each other properly.

Not everybody got a turn to introduce himself and the internet was bad so we couldn't hear the names properly

The skype call

everything worked well

Some people didn't understand each other's names, so then it wasn't good

communication because the voices were cracked and the visuals were pixelated. maybe use something else like hangout etc.

The skype call, audio issues etc

The Skype call was really bad quality, so the audio and video kept cracking.

I think what didn't work well was the skype quality, so maybe we could use some other app like facetime or hangouts.

Skype did not work well because it was glitchy

the skype call was pixelated and the audio wasn't that good

The connection with the other team

The skype call made it hard to focus on the game and the glitches made us not hear the name properly.

The skype call was a bit problematic because it was hard to hear and understand

The skype call didn't work to well.

What wasn't fun?

Not everyone got a chance to play but that's ok because it's meant to be played over a long time

I couldn't introduce myself in front of the camera

nothing.

That not everybody got a turn in front of the camera

Introducing ourselves

nothing wasn't fun.

nothing

waiting for the other group to settle down after they moved

The confusion of names due to the audio problems

I don't think there was anything that was significantly not fun.

What wasn't fun was that we had very little time to play the game.

that not everyone gets to say there name

When we forgot someone's name but the thing is the skype audio wasn't working well so we heard the name Julie instead of Julian

the way that you were out because you could not hear what the other person was saying

Since I didn't get a turn I didn't really have a time to participate in the game.

Not getting a turn

The fact that we couldn't really hear the other team and because the audio didn't work.

What are some suggestions for modifications?

Nothing

make the duration of the game longer

Maybe we shouldn't repeat the numbers because some people didn't have a turn .

maybe make it a way that everybody gets a turn and maybe change the set up so that it maybe goes quicker

Maybe you should add something to do when they stop at the camera because all we did was say hello

To maybe communicate and say your name in a different way.

maybe try to make the skype call a bit more clearer, or just use somethings else from skype.

use something better for communicating so that we can hear the voices clearly and so that we don't get the names wrong.

Maybe find an alternative for the skype call

Maybe find another way to communicate, like Google Hangouts.

I think a modification he could try to make maybe something that could get everyone involved and getting in front of the camera.

i do not know maybe the way we communicate

I think we should use something else other then skype to communicate

I do not know maybe more characters

One thing that you could change would be the way we communicate. Maybe we could use hangouts instead of skype because skype often has a bad connections.

use something instead of skype and maybe a bit shorter

Find a different way to communicate other than skype.

What other ideas do you have?

Nothing

Instead of skype, find another way to communicate with the other group

None

Nothing really, other then It was really fun!!

Make it more mysterious and scary

nothing

time limit because that makes it more fun and exciting.

Maybe have both "teams" sit in 2 straight row parallel to each other so that no skype call is needed

none

i do not have any other ideas

N/A

i do not know

Maybe there could be a way to make everybody have a turn. I think it is important to have everybody participate and if people just keep saying the same numbers then some people will never get a turn. Maybe this could be something that could be changed.

Instead of book characters it could be other things like favourite foods

Maybe use google hangouts to do monster wheel or facetime or something like that.