MCEdu Tower Challenge Post Mortem

Overview of the Challenge:
This is an activity to teach soft skills such as cooperation and communication. The students were split into teams of 4-5 students and were tasked with building the tallest climbable structure as possible within the time limit. The students were rated on the size and height of their structures, how well they worked together, and the aesthetic of their structures.

Playtest Participants:
This lesson was playtested twice in the classroom with two different groups of kids. The first group was a class of eighth graders and the second group was a class of ninth graders. In the eighth grade class five students had played Minecraft previous to the playtest, in the ninth grade class four students had previously played. In both groups the students with Minecraft experience were distributed among the teams. The girls and boys were also mixed up evenly among the teams so there were no single-sex teams.

Challenges and Difficulties in the Classroom:
It is very difficult to teach a lesson with Minecraft if the students are new to the game. Ideally the students should have time to run around the game, get used to the controls, and explore the basic game concepts before using the game to teach a lesson.

Technical problems can slow down starting the lesson. Care should be taken to ensure the technical setup of the server and the process of having students join the world goes without any problems.

Some students just won't get Minecraft or enjoy it. Moving around 3D space inside of a computer makes some people nauseous. Some students will need more time than others to get used to the controls and game concepts. Some students will not want to participate.

Students will find the weaknesses in your lesson world. You really have to make a world solid in every conceivable way. In this lesson the students dug way down into the ground and found tunnels that I did not realize were there. They then ran around these tunnels and had a hard time getting back out. Making sure the students cannot dig below a certain level by using build allow blocks will be helpful in many instances.

Students will have different wants and interests inside of the game world. Some students will want to build tall towers. Others will want to destroy what other kids have made. Others will want to run and explore everywhere they can. Making your world and tasks as intrinsically interesting as possible will help keep everyone's attention where you want it.

Lessons Learned:
Students will teach each other. As soon as one student figures something out, other students will notice and ask how it was done. Game techniques make their way around the classroom very quickly. Students want to show off their skills and knowledge to each other. Leverage this when designing your lessons.

Leverage previous student knowledge and experience. It is a good idea to spread out students with knowledge of the game so that they can teach as many other students as possible. In both the junior high and high school classes, the winning team was the team with the most

experienced person on it.

Be wary of gender and social stratifications. Girls are going to want to sit together. Friends want to sit with friends. It might be worth breaking up cliques to force the students to work together outside of their pre-established groups.

Teamwork is hard and takes practice. Kids are not going to work together right off of the bat. While none of the teams fought during the playtests, there certainly could have been more collaboration. Encourage the students to work together and talk to one another.

Students want to blow stuff up, kill the animals, and destroy things. One of the things that makes video games fun is the ability to do all sorts of things that you cannot do in the real world. Giving the students free time to play the game without having to pay attention to a lesson will help get it out of their system.

Plan for moments of reflection. Let the students see what they and their classmates have built. Turn on creative mode for the students at the end of a lesson. It is a lot of fun for the students to fly around and look at the world from another angle.

Use indirect control. If you want your students to go somewhere, the easiest way to get them to go there naturally is to put something cool and interesting there. Imagine a jungle with a massive tower made of gold and diamond in the middle. Most kids are going to naturally head towards the tower.

A Few Quotes from Students:
During the Test -
"I don't want to build"
"This is fun!"
"I don't get it"
"Gather wood resources and bring them to me, I'll make the ladders"
"This is weird"
"I'll show you what to do"
When the bell rang -
"Aww!"
"Can we stay?"

Playtest Notes:
Junior High Class Notes:
Timestamps:
0 – Mike: "Who told you to sit down?" (Interesting tone set.)
1 – Students sit down.
130 – Mike starts introduction, 5 students had played Minecraft
230 – Dave starts his introduction, runs through steps to join server. Troubleshooting, as joining goes a bit slow.
404 – RayliT joined the game (I believe the last)

430 – Dave gives instructions on WASD/mouselook/jumping.
520 – Dave: "walk through pumpkins" Mike: "I don't think we're there yet" (class was still slow)
640 – 5 students still at starting staging point.
7 – last student leaves staging point.
10 – Pixel Pushers giving individual walkthroughs. Overheard "this is weird."
1300 – Students learning the basics.
1414 – Dave gives rundown on how to dig, how to place.
1600 – lots of digging up the ground, a few dirt blocks have been placed.
1830 – Dave preps to start the challenge, ports everyone back to spawn. A few teleport hiccups.
2100 – Dave: "Everyone with the right team and right color? Build the tallest tower as a team that you can."
2230 – Dave specified this tower should be within the team's colored oval.
2300 – Overheard: "You got me in a hole!" "Are we building in the center?" "Where Jonathan just landed."
2430 – Girl had raised her hand for a long while before noticed by anyone.
3120 – Dave: "6 minutes left"

Additional Notes:
Classroom had Blue in the front left, Red in front right, Green in back left, Purple in back right. (Front being where Dave was set up, Left/Right as the class was facing.)
*All of the girls sat in their own rows, even across teams. Blue and Red girls sat in the same row, as did Green and Purple.
It's probably worth noting that this is an age where there is probably still a fairly strict social divide between boys and girls.

High School Notes
Apologies, no computer of my own made it harder to take notes here. Also, was in conversations with Todd or other EFHS officials most of the time.
Overheard on Purple Team: "Let me set up a base." "What do I do?" "I'll show you."
(Girl with Minecraft experience helping a boy.)
Teams in columns. If facing the podium/door, went:
Green Purple Blue   Red
Interview – 9th grader, some previous knowledge of Minecraft, not much experience with Minecraft, shy (didn't get his name for some reason)
What surprised you?
Some kids already knew how to play Minecraft. And that you could do whatever you wanted.
What frustrated you?
Falling off towers. Teamwork – that there wasn't much of it. Kids destroying towers. Getting materials. People not listening.
What else would you like to see?
Zombies.
What did you like?
Killing animals.