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PDI Studio V

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Ethnography 3 (Prototype Visit)

Before heading to Arc Community Charter School, we had to decide what aspect of our final project the students would be testing. We decided to test the Kinect interaction in a couple different ways. From previous experience we knew that coordinates was one thing that the kids enjoyed finding so we created a game where the Kinect would display the children in front of a graph and soccer goal. We would call out coordinates and they would have to find them on the graph. In the final game we hope to have a soccer ball being shot at those coordinates and the student would then have to save the ball by being in the right spot. I hypothesized beforehand that the students wouldn't respond well to the rudimentary game where there was no actual ball to save, but that they would enjoy seeing themselves on the screen and interacting with the Kinect. We also planned on testing the student's interactions with other programs, one that involved clicking buttons through the Kinect, and the other was to control a character on the screen. For these we just wanted to see how they reacted and hypothesized that they would like to control other characters and be able to successfully click things.

From the trip, we can conclude that my hypotheses were mostly correct. To clarify I had a scheduling conflict and did not attend but I will use information gathered by my group to determine how the students responded. First off they did actually find the game without the soccer ball to still be very engaging. They were very enthusiastic when it came time to find the points. The only problem was having only one student at a time trying to find the points. A few people in each group seemed to want to take over or help. Some of the kids let them, and others didn't. This became a problem as the Kinect can only see 2 people at once. It was also a problem because the kids that let their louder classmates help them weren't necessarily finding the point on their own, while the louder kids were involved every time someone went. This just goes to reflect on the individual characters of each of these kids, and how their different personalities come into play in a group setting. We may have to think about ways to try and involve multiple students at once, or adjust our user group to be a single student. The Kinect creates a limit for only two, so any accommodations for more involvement may need another

element. It might be possible to add a competitive element or more jobs for students to do simultaneously so that they are all involved.

In addition to the kid's response to our prototype, we received more positive feedback from a math teacher at the school. He came in during testing and was very interested in our project. He was very excited about it and thought it had a lot of promise. He was confident in its ability to help teach the students graphing and coordinates.

The Kinect element itself seemed to be perfect for the children. They were able to interact with it and thoroughly enjoyed seeing themselves on the screen. The students were able to use the Kinect without much instruction at all. It helps that many of them already had experience with using Kinects and similar video games. Not only could they use our simple game, they were mostly able to work the clicking application. The amount of time required to click was a little bit too long so that it didn't work as well as we were expecting. This is an easy adjustment that can be made for use in our final project. The students also responded extremely well to being able to control another character. They liked to make the character move and do funny dances. I think if we were able to combine the character ability with that of the soccer game, we could create a fun and educational experience.

Overall, the students were excited about the prototype and enjoyed using it. I think this is hugely positive feedback and signifies that we are moving in the correct direction. The fact that the students can have fun while learning by using their body to move to locations they aren't just learning coordinates but they are learning spatial awareness. By projecting a 3D world onto a 2D screen the kids will be able to see how graphs can be used in real life and how locations can exist relative to themselves and each other. As much as student feedback is very helpful, as they are our users, I think the most exciting feedback came from the math teacher. If an actual math teacher thinks our idea is good to help kids learn, I think we are on the right track. Kids just like things that are fun; I'm glad that he was able to verify that we are actually teaching something useful and well. I think that with his educational approval and the overwhelming student approval we are on track to have a great final project.