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Ethnography, Field Trip #3

**Game Plan:**

Cary made a powerpoint version of the Flash game we have been working on and we plan to show this to the kids to get their feedback for the game’s layout. We are also going to have the kids play a physical game that mimics what will be done in the Flash game. We are going to have them play tic-tac-toe with one another but in order to play a letter on the board they must first successfully mix a color on our worksheets.

**Hypothesis:**

We think the kids will enjoy getting to manipulate the squares of color to follow the recipes for each color. We’re interested to see how the kids react to the level of difficulty, we think some of the colors and fractions may be too hard for them to understand.

**Reaction Analysis:**

We started each group out by watching the powerpoint video of the game play. They were all very impressed with the level of performance of the slideslow which set the tone quite nicely. With the first group we moved immediately into explaining how the tic-tac-toe game was going to work. They were all quite ansy to get started with the game, so we let them dive in. We presented each student with a worksheet, there was a color with a “recipe” of how to make it next to three cylinders for them to fill in with the appropriate color.



The cylinders were broken up into 12ths and we had cut out small rectangles that corresponded to the different possible fractions in red, yellow and blue before the class. The students had to match the correct size rectangle with the given fractions and fill each of the corresponding cylinders with color. This required the students to convert variations of the fractions ½, 1/3, ¼, and 1/6 into 12ths. We were testing their knowledge of common denominators. The first group of girls I worked with struggled with this concept more than other groups seemed to. They were very reserved and were afraid to show that they didn’t know what to do. As I tried to walk them through the conversion of fractions they appeared to understand and would come up with the correct answer, but when I asked them to figure out the next one on their own they would freeze up and say they didn’t know. Instead they would start to pick up different size rectangles and fit them to the cylinders in what they thought to be the correct size. Often they were correct, but when I asked them how they came up with that size rectangle they would say they didn’t know why they picked it. My suspicion is that they understood more than they thought, and intuitively could see and understand the different tick marks on the cylinders, but when confronted, they were afraid of being incorrect. They told me they had not done fractions this year (6th grade) but had learned them previously in 5th grade. The teacher of the class told us this would be a great game for the 5th grade classroom.

The second group we worked with didn’t make it to the game. We showed them the powerpoint and then showed them the characters we had come up with to go along with the Flash game. They immediately took a liking to one of our characters and did not like the other two. This created a brainstorming session of what could be added to make the character better. We gave each of the students a piece of paper and crayons and they began to draw their ideas out for us. We presented two different spray can themed characters and one paint brush one:



The spray can on the right was the popular one, I suspect because it is more stereotypically outfitted with accessories. We were afraid we may have gone too far, but the students loved it. They decided to name him T-Paint, after the popular rapper T-Pain. They suggested improvements such as adding a gold tooth, dredlocks and a backwards hat that was splattered with paint. They really embraced the game and the image we were trying to create and came up with some great suggested improvements.

For the third group we made the effort to go back to the game, we wanted to make sure we got more feedback on the difficulty of the game we were proposing. Instead of doing one on one competitions, we had them work in a groups to complete one color at a time and play tic-tac-toe as a whole. The group I worked with for this round was much better than the previous girls had been at understanding fractions. However, one of the three boys I was working with seemed very uninterested, while the other two jumped up and got ready to solve the puzzle, he sat there watching. But once they started placing rectangles on the paper, this boy would figure it out in his head, reach over and place the correct sized rectangle on the paper while the other boys were trying to figure it out. It was interesting to me that he was not at all interested in the game itself but understood it well enough to answer the questions. The vibe I got from him was that this game was way too easy for him.

The last group we worked with was only two students so we decided to do 6th grade students against college kids. One boy was very excited to challenge us and as a result had to figure out all of his fractions much faster because it was now a bigger race. He beat Ellie once but Pat beat him the other time. It was great to see how excited the boy got when he was able to beat college kids at their own game. All of the students seemed to have an interest in the game, and weren’t just doing it because we told them to. However we did see a wide array of skills when it came to fractions and common denominators. Some of the students said the game was too easy but others thought it was quite difficult. We will have to keep this in mind when setting up the game and perhaps we can section off different levels to make sure we continue to challenge the more advanced students.