Fabian Hough

PDI Studio V

Assignment 8: Ethnography Report

Introduction + Prototype

The group made a functional prototype that mainly tested two things: the feasibility of using the Arduino to create a spelling game, and if other ideas, such as reading comprehension, would work.

The prototype consisted of an Arduino, buttons, LEDs, and an analog “reader.” Outside components consisted of various resistors attached to clothespins. The prototype only had one analog reader circuit instead of the intended 15 for the final project. There were also only five different resistors, and the buttons are not going to be present for the final because the prototype, instead of the spelling game, played a multiple-choice type game that had choices ranging from A to E. Instead of letters, the children were read a story, and had to answer questions based on the story. In this way, the prototype was nothing more than a glorified iClicker, but it fulfilled its main purpose in being a way for the group to test the idea on a smaller scale.

Hypothesis

My hypothesis is that the children will enjoy interacting with the prototype in terms of its buttons, interface, and clips. However, I also think that they won’t necessarily enjoy the story and answering the questions. Looking at it, it seems very similar to just taking a quiz and answering the questions, which doesn’t seem like a very enjoyable attitude.

On-Site

From the beginning, the prototype did not work as expected. At first, it did not register the correct values for the resistors that corresponded to the letters on the clothespins even though it had done so before. Perhaps it was the fault of the environment or the room. Some foresight had seen us bring extra wire for emergency application, and the pennies that served as contact points were removed and replaced with coiled wire while the story and questions were read to the first set of children without the device. Although the device continued to present issues related to the contacts, it worked enough to continue the experiment.

In all three groups, the children were losing focus during the reading of the story. At one point or another, each child had either rested their head on their hands or on the desk, and looked in other directions. They weren’t very active and didn’t portray any sort of smile or excitement at the story or the questions. One student was quoted as saying “I don’t like taking tests,” which indicates that this gave a similar situation.

They were intrigued by the device, and liked interacting with it, even when told not to. There was a red status LED that was supposed to stay on and only turned off when an input was put in. The children kept thinking that it was a wrong answer, and kept trying to turn it off, which would mess up our inputs.

Conclusion

The hypothesis was more or less right. The children did not enjoy having to sit, read a story, and answer questions. This is good news in two ways. One is that our spelling idea was definitely more enjoyable. The second is that if we decided to go with reading comprehension, it would require a lot of creativity. The prototype worked mostly as expected, and further testing should be made on the final device. All in all, the prototype fulfilled its purpose, and showed the feasibility of the final product, and gave us valuable data on what kinds of things the kids liked.