Appendix A: Usability Study Protocol

Conducted by Sesame Workshop's Research Division

The purpose of this study is to gain understanding around young children's knowledge, perceptions, usage, and usability of mobile devices, with a particular focus on mobile applications such as iPhone Apps.

Activity 1: Children's Knowledge of Mobile Devices & Other Technologies

Show child pictures of the following 8 technologies: Cell phone, iPhone, Blackberry, iPod, Television, Wii video game system, Nintendo DS and Computer. Randomly cycle through pictures, write which picture the child is looking at, and ask the following series of questions:

PICTURE 1 - THE CHILD IS LOOKING AT THE PICTURE OF A: _____

1. Do you know what this is?

        YES   NO

    a. If YES:
- What is it?
- What does it do?
- Have you ever seen one? Probe: Where?
- Have you ever used one?
- Do you usually use it by yourself, or with someone else? Probe: Who?
- Do you have one in your house? Probe: Whose is it?
- Do you think this is for someone just your age, or is it for grown-ups, or is it for both?

    b. If NO:
- What do you think it does?

REPEAT ABOVE FOR PICTURES 2 THROUGH 8

Activity 2: Children's Perceptions of Mobile Devices & Other Technologies

To determine which technology the child would like to play with in order from most to least, show child the pictures of all 8 technologies, and ask the following questions. Once the child has selected a device, cover it up with a post-it note so that they can no longer see it.

2. Look at all of these pictures. Which one would you most like to play with?

FOR ITEMS 3-8: REPEAT ABOVE FOR ALL PICTURES

Activity 3: Children's Perceptions of iPhones

Show child picture of the iPhone and ask the following series of questions (if they said they have used an iPhone)

9. You said you have used one of these before. What did you do with it? *Probe*: Anything else?

10. Have you used it a bunch of times, or only one or two times?

11. When you use the iPhone are you home, at school, or somewhere else?
      11.a. (if somewhere else) Where do you use the iPhone?

12. Is the iPhone that you use your iPhone or is it someone else's?
      12.a. (If it is someone else's) Whose iPhone do you use?

13. Do you usually use it by yourself, or with someone else? *Probe:* Who?

IF THE CHILD SAYS SOMEONE ELSE, ASK THE FOLLOWING SERIES OF QUESTIONS:

      13.a. When you use the iPhone with _____, what does _____ do? What do YOU do?

      13.b. Do you like it when _____ helps you use the iPhone?

      13.c. Do you like to use the iPhone by yourself more, or with someone?

Activity 4: Children's iPhone Usability

Hand the child the iPhone, and ask the following series of questions:

14. I brought an iPod touch for you to play with. You can play with it however you want!. Here it is! Try to turn it on and then you can do whatever you want with it! (Hand the iPod to the child in PORTRAIT position.)
Encourage them to keep trying until they say they can't do it, at which point turn it on for them and take them to the main screen. Note what child does, and the questions they ask.

      14.a. Does the child need help pressing the home button?

      14.b. Does the child need help swiping her finger over the screen?

15. There are lots of different things you can do on this! Show me what you want to do.
Allow the child to navigate the iPod for 2 minutes. Write down what the child does and what they choose. Look specifically for:

      15.a. NAVIGATION: Record where the child goes, what he does, and the order in which he does it. Use the screen shot on the next page to record the navigation.

15.b. DOES THE CHILD ASK FOR HELP? What does the child say? Record any nonverbal request for help? What is the help for? When does he ask? What do you say?

15.c. DOES THE CHILD UNINTENTIONAL TURN THE iPod OFF? Does he press the home button? Does he press the screen button (top right corner)? How many times does this happen?

15.d. DOES THE CHILD INTENTIONALLY TURN THE iPod OFF? Does he press the home button? Does he press the screen button (top right corner)? How many times does this happen?

15.e. HOW DOES THE CHILD HOLD IT? Portrait? Landscape? Does he change it to a different position? When?

15.f. DOES THE CHILD TOUCH THE APPS ON THE BOTTOM MENU?

RECORD ALL NAVIGATION HERE!!!

RECORD ANY CHILD COMMENTS (both verbal and non-verbal):

16. Point to the Monster Maker App: Here is a game for you to play. Let's try playing the game! *Allow the child to play the game for 2 minutes. Record as much as you can, such as:*

    16.a. NAVIGATION: Record where the child goes, what he does, and the order in which he does it.

    16.b. DOES THE CHILD ASK FOR HELP? What does the child say? Record any nonverbal request for help? What is the help for? When does he ask? What do you say?

    16.c. DOES THE CHILD *UN*INTENTIONAL TURN THE iPod OFF OR EXIT THE GAME? Does he press the home button? Does he press the screen button (top right corner)? How many times does this happen?

    16.d. DOES THE CHILD *IN*TENTIONALLY TURN THE iPod OFF OR EXIT THE GAME? Does he press the home button? Does he press the screen button (top right corner)? How many times does this happen?

    16.e. HOW DOES THE CHILD HOLD IT? Portrait? Landscape? Does he change it to a different position? When?

    16.f. RECORD CHILD'S EMOTIONAL STATE. Does the child appear bored? Does she laugh? Does she express frustration? Etc…

    16.g. DOES THE CHILD PLAY BY HERSELF OR WITH THE EXPECTATION THAT THE INTERVIEW WILL PLAY WITH HER?

NOTE ANY COMMENTS THE CHILD SAYS OR RECORD ANY OTHER NOTES HERE.

NOTES: (record any notes from Monster Maker here)

Activity 5: Children's iPhone Experience

Take the iPhone back and ask the following questions:

17. What would you tell your friend about an iPod?

18. Did you like using the iPod?

19. How hard was it to use? Was it: "Very easy," "easy," "hard," or "very hard?"