LBSC708N – Design Methods

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Design Workout 1 – Task Analysis

**Workout Description:** Observe a child, an adult, and a college student using a cell phone to complete the same task. Describe the task, similarities of how the task was carried out by each user, and the differences in how the task was carried out by each user. Then discuss at least one implication of what you observed for the design of future cell phones.

**Task Description:** I observed the three users go through the motions to making a call. I asked them to use their own phone to call someone. I chose who they would call based on their recent call history and their contact list. I am interested in how people use the different methods of reaching someone they know. Some of the methods include the recent calls list, the contacts list, and speed dial; as well as having the buttons on the keypad they could use if they were familiar with the phone number. I then asked them two questions: 1) How often do you use the speed dial numbers vs. the “Contact” list? And 2) How often do you use the “Recent Calls” list?

**Observational Methods:** I watched the users perform the task while using my eyes, and hand-written notes on their process as my transcription process. To follow each of their steps I used a combination of talking to the users as well as watching them perform the task. I did not have the users speak all their actions and thoughts, but some I did not follow, I asked them to explain.

**Child Observation:** The first user I observed is a 16-year-old female high school student. She has a flip phone with front display and keypad as well as full keyboard and screen when you flip the phone open. I told her to call a contact “Andrew mobile.” Using the front display, she clicked the “OK” button 3 times to unlock it and then wake it up. She the proceeded to click the “Contacts” button, and clicked the number “2” to get to the list of numbers starting with “A.” Once she had reached that list, she scrolled to the contact “Andrew” and pressed the “send” button. Although there were two numbers stored under the contact “Andrew,” the user was aware that the send button would call the primary number, his mobile number. Her answer to the two follow-up questions is as follows:

1. She only has her family members on speed dial so always uses the speed dials to call them, everyone else she uses the contacts list.
2. She claims to only use the “Recent Calls” list when accessing a missed call.

I then asked her a third question as she had a flip-able phone – How often do you flip open your phone and use the full keyboard inside? To which she answered she only uses the inside for replying to text messages, accessing the “Settings” controls, and to look at pictures.

**College Student Observation:** The next user I observed is a 20-something year old PhD candidate with an iPhone. I asked him to call “Jeremy K mobile.” The user started by clicking the “Home” button to wake up the device and then sliding the unlock feature to unlock his phone. He then touched the “Phone” icon on his home icon bar and pressed the letter “K” on the scroll bar on his contacts list. Once at the names starting with “K,” he scrolled to “Jeremy” and touched his name, which popped up his contact information and then pressed the number for “Jeremy mobile.” His answers to the follow-up questions are as follows:

1. He never uses the speed dial, as he doesn’t have an application to set up speed dial numbers. He almost always uses the “Contacts” list.
2. He claimed that about half the time, he uses the recent calls if he knows there’s someone he’s talked to within the past couple calls.

**Adult Observation:** The final user I observed is a 54-year-old mother who works as a web developer. She has a droid touch smart-phone, and I asked her to call “Bob mobile.” She started by pressing the top power button to wake up the device and then slid her finger across the unlocking feature to unlock the applications. She then slid her finger across the screen to access another screen where she had icons for contacts quick dial numbers. This is a widget by Motorola that allows her to touch the icon to start dialing the number. She states that this feature allows her to quickly access a number she frequently dials while driving so she can better concentrate on the road. Her answers to the follow-up questions are as follows:

1. She claims that about half the time, she uses the speed-dial icons vs. going through the “Contacts” list.
2. She claims she rarely uses the “Recent Calls” list (maybe once or twice a week).

**Similarities:** Similarities between the three users include using formatted lists as well as speed dialing to reach contacts. The users agree that using the keypad for dialing is purely for adding new numbers. The users also similarly avoid the “Recent Calls” list in favor of scrolling in the “Contacts” list for the appropriate number.

**Differences:** Some differences include the amount of contacts stored in the speed dial options that they have available for more frequent use. There were also differences in the choice of “wake-up” buttons used – one user used the “home” button while the others chose to use the power button.

**Suggestions for Future Design:** For future design of cell phones I would make the keypad number feature part of the background so that people can access it only when they need to add a new number into their “Contacts” list. Now when people get new phones, they can easily import all their contacts from a previous phone without ever having to use the keypad to manually install all their contacts. People buying their first phone would have the most trouble adding new numbers to a phone with a less accessible keypad, but since they would theoretically be using it once, it might not be so much of a bother. I would also make speed-dialing options easier to access and faster to dial so that people driving have less to do to make a call while trying to focus on their driving and the other drivers around them.