User Study Notes

Fuelio

Interview 1

Demographic information: Age 33; Gender Woman; White

- 1. How she typed the word: to get an approximate location of the letter. She lifted up her finger to see if that was the letter she was looking for. If not, she kept swiping.
- 2. She did not know certain elements would disappear. She said everything was out of order because the picture was at the very bottom before.
- 3. If something disappears- A notification, or if you check this box, something will happen to notify screen reader users the participant's preference.
- 4. The new tab is there because TalkBack announced selected.
- 5. Appearing elements appear before a11y focus, so users are confused. Screen Reader should be taken to the first newly loaded element. Typically, new elements would load below, but those elements load above.
- 6. "Usually, new elements appear below, but in this case, they appeared above"
- 7. The screen reader should move the focus to the first element on the page. The user did not quite understand the navigation.
- 8. Short-lived content is announced to the user. The live region is set correctly.
- 9. The content modification did not say anything about the result; users would expect it to be announced automatically or to move the accessibility focus to the content modification.

Interview 2

Demographic information: Age 32; Gender Man; White

- 1. Task1: add a new cost entry
 - a. Window change implicitly understood, hearing the top element of the window (Fuelio app)
 - b. Transition to add cost a bit confusing due to unlabeled buttons
 - c. Unable to find the one-time cost.
 - i. Removing check boxes or edit boxes is rare. They may still be there but grayed or disabled.
 - ii. Items remain on the screen but are not available with a message indicating that due to the "reminder only" option activated.

- iii. They don't understand if the button is there, removed, overlaid, etc.
- iv. "Thought the recurrence section was either not on the screen or not visible to TalkBack. I just couldn't find it."
- d. Cost logged message is appreciated when the ok button is clicked.
- e. Cancel button and ok button better be together
- 2. Task2: go to timeline tab, add gas entry
 - a. (Did they understand the window change?) Yes!
 - Add cost is unlabeled-> after pressing it they didn't understand that anything changed
 - c. Inconsistent design to show the buttons that are appearing.
 - d. "It is very confusing and disorienting that something changes on the screen without any notification from screen readers".
- 3. Task3: go to calculator tab, see the short-lived notif, updated results
 - a. Error message is understandable.
 - b. Transition noticed just because it said Calculator selected.
 - c. Calculate button selected and the result noticed.
 - d. The user navigated back to find the results.

Interview 3

Demographic information: Age 21 to 30; Gender Man; Ethnic White

- 1. He noticed a window transition after hitting the COSTS button because the Talkback focus changed and announced, "Cost log opened."
- 2. After selecting the Reminder-only checkbox, the app layout changed, and the Recurrence section disappeared. He was not aware of this change and did not know that the Recurrence section had already disappeared.
- 3. However, he was able to figure out that he should uncheck the Reminder Only after he went through the page over and over again.
- 4. He said, "I noticed it, but TalkBack didn't tell me that it did." It did confuse him.
- 5. Preference regarding this situation: "New controls are available or new controls are shown."
- 6. When the timeline is selected, instant confirmation does not indicate the number of tabs in the index.
- 7. After selecting the plus button inside the Timeline page, four more elements appeared above the current accessibility focus.
- 8. He said one of the things he noticed after double-tapping the plus button was that nothing happened, which is not true from a sighted user's perspective. "TalkBack just played the double-tap sound, but it did not speak anything." He

- wouldn't know if there were new controls available until he fully explored the page.
- 9. A better idea would be to have a full-screen takeover. A menu pops up.
- 10. The error message is announced to him because the live-region is set correctly.
- 11. In addition, all the dynamically appearing elements after pressing a tab did not confuse him.
- 12. He expected to get the instant confirmation of the result, just like how he got the instant confirmation of the error message, for the sake of consistency.

Interview 4

Demographic information: Age 43; Gender Man; Ethnic Irish/French Canadian

- 1. He was not able to notice the window transition once he clicked on the Costs button.
- 2. He relied on the Talkback announcement to determine if there was a window transition, but TalkBack didn't announce anything.
- 3. TalkBack used ticked or no ticked to indicate whether he selected the checkbox "Reminder Only."
- 4. He did not notice certain elements, such as Recurrence, disappear after selecting the checkbox.
- 5. He mentioned that it would be good to know that something has changed on the screen.
- 6. "It's tricky because you don't want TalkBack talking all the time when you're trying to enter stuff, and probably lots of stuff changing on the screen is irrelevant. How do you know?"
- 7. He said before he used this app, he wanted to read some documentation, which he would expect from the various screens. He would rather do that than have TalkBack talking all the time. (Readme file or tutorial screen)
- 8. The appearing element after selecting the Timeline tab didn't confuse him.
- He mentioned that after he clicked on the Plus button, it didn't say anything, so he was unsure whether he clicked on it. However, four elements dynamically appeared on the screen before the a11y focus.
- 10. He was notified of the error message after clicking the Calculate button without putting any values for Price and Consumption.
- 11. Unlike the error message, TalkBack said nothing after clicking on the Calculate button with valid values. He went back and got the result.
- 12. If TalkBack had announced the calculation result immediately, he wouldn't have been disappointed. He also mentioned for the sake of consistency, it's good to do this. However, knowing an error is more important than a normal message.

13. "For the sake of consistency, having the calculation result announced just like the error message would not disappoint me."

Interview 5

Demographic Information: Age 27; Gender Woman; Ethnic White

- 1. She thought "Turn on nearby features" was irrelevant, so she clicked the Hide button. Four elements before A11y Focus disappeared, and since they were before A11y Focus, it didn't cause her any trouble.
- 2. After she double-tapped the Costs button, she noticed a window transition because TalkBack played a sound to indicate she was on a new screen (we have to turn on sounds, but it's a default configuration). If the sound does not turn on, another way to tell is a navigate-up button indicating it's a different screen.
- 3. TalkBack OCR can not synchronize the detected label with a braille keyboard.
- 4. After selecting the Reminder-Only checkbox, she didn't realize the app layout had changed, and the Recurrence section had disappeared. She thought it was either not on the screen or not visible to TalkBack.
- 5. She prefers that when the app layout changes after clicking an element, it will announce the change to her, such as fewer items shown.
- 6. After double-tapping the Plus button on the Timeline page, she mentioned nothing happened. However, four elements appeared before the a11y focus, and no feedback was given to the user.
- 7. After finding the Gas button, she thought she was on a different page, but it wasn't true.
- 8. The appearing element after selecting the Timeline tab didn't confuse her.
- 9. TalkBack announced the error message to her.
- 10. She mentioned after putting the values for edit boxes and hitting the Calculate button again, "This time, it didn't read anything to me

Spotify

Self-guided task 1

Demographic Information: Age 27; Gender Woman; Ethnic White

 Moving elements do not cause her any confusion since their positions will be restored when scrolling up.

- Users are notified of the short-lived elements; even though the live region for each element is 0, its container has the value 1, so the announcement was there. However, she had difficulty understanding that they are short-lived elements and that the functionalities of short-lived elements are inaccessible to them because they disappeared so fast.
- 3. It also added confusion to her when the change button disappeared. However, there was an alternative way to achieve this. When removing a song from the favorite, the live region for each element is 0, as well as the container, so she had to explore the screen to see if she successfully removed the song.
- 4. The "Item added button" was changed back to "Add an item."

Self-guided task 2

Demographic information: Age 43; Gender Man; Ethnic Irish/French Canadian

- 1. Moving elements do not cause him any confusion since their positions will be restored when scrolling up.
- Users are notified of the short-lived elements. However, he had difficulty
 understanding they are short-lived elements and that the functionalities of
 short-lived elements are inaccessible to them because they disappeared so fast.
- "The button showed that I could change it, and that's what it just spoke initially; I don't know where it is."
- 4. He could not complete the task of removing a song from his favorites.
- 5. With a hint from Fable, he tapped "Item Added Button" but couldn't find a way to remove a song.

Self-guided task 3

Demographic information: Age 33; Gender Woman; White

- 1. She couldn't find the "My mix" heading; she thought it might be in the search bar.
- 2. "When I select the new tab, it would be helpful if TalkBack's focus was taken up to the top of the newly loaded screen."
- 3. The user was notified of the short-lived elements. However, the user had difficulty understanding that they are short-lived elements and that the functionalities of short-lived elements are inaccessible to them because they disappeared so fast. In addition, she was only able to understand part of the short-lived elements "Added to like songs" while missing there is a clickable text view called Change.
- 4. She could not complete the task of removing a song from her favorites.

5. Moving elements do not cause her any confusion since their positions will be restored when scrolling up.

Self-guided task 4

Demographic information: Age 21 to 30; Gender Man; Ethnic White

- 1. Moving elements do not cause him any confusion since their positions will be restored when scrolling up.
- 2. Users are notified of the short-lived elements. However, he is not sure whether the change button will disappear. "It seems like there is a change button, and I'm not sure if it will disappear."
- 3. "The change button must have disappeared because we can't access it from the other things." This implies that he was aware of the change button's transit feature, but he didn't know that after adding a song to the favorite, the app changed from one window to another, so the change button was in a different window. It did disappear, though.
- 4. Talkback uses a sound to indicate a screen change.
- 5. He could not complete the task of removing a song from his favorites.

Self-guided task 5

Demographic information: Age 32; Gender Man; White

- 1. Moving elements do not cause him any confusion since their positions will be restored when scrolling up.
- 2. He was notified of the short-lived elements. However, he had difficulty understanding they are short-lived elements, and the functionalities of short-lived elements are inaccessible to him because they disappeared so fast. In addition, he was only able to understand part of the short-lived elements "Added to like songs" while missing there is a clickable textview called Change
- 3. He removed a song by using an alternative way "Item added button."
- 4. He couldn't understand why the song was removed immediately. He had to explore the whole page and relied on the textual description of the element to determine whether a song had been removed.

Booking.com

Self-guided task 1

Demographic information: Age 21 to 30; Gender Man; Ethnic Asian

- 1. TalkBack didn't adjust its focus automatically when he selected any of the tabs inside the Booking.com app. However, he relied on his previous experience that new content appeared on the screen when switching tabs, so he moved the TalkBack focus manually to the top of the screen (Continuously swiped right).
- 2. He mentioned it did introduce inconvenience and confusion.

Self-guided task 2

Demographic information: Age 36; Gender Man; White

- TalkBack didn't adjust its focus automatically when he selected any of the tabs inside the Booking.com app. He was confused about whether the hit on the bar called saved introduces any changes on the screen. Then, he started using swipe-right gestures to explore the whole screen and finally found the desired elements.
- 2. He mentioned it caused much inconvenience and confusion.

Self-guided task 3

Demographic information: Age 21 to 30; Gender Woman; Ethnic White

- 1. She mentioned she knew there were 4 items in the bottom bar section. TalkBack provided this kind of feedback to her.
- 2. TalkBack didn't adjust its focus automatically when she selected any tabs inside the Booking.com app. However, she relied on his previous experience that new content appeared on the screen when switching tabs, so she moved the TalkBack focus manually to the top of the screen (Explore-by-touch mode). Explore-by-touch means when you tap a specific area of the screen, TalkBack focuses on the element that has the same coordinates of that area.
- 3. She mentioned it did introduce inconvenience and confusion.

Self-guided task 4

Demographic information: Age 21 to 30; Gender Man; Ethnic White

1. He mentioned when he selected a specific navigation bar, TalkBack provided feedback as "Selected."

- 2. TalkBack didn't adjust its focus automatically when he selected any tabs inside the Booking.com app. However, he relied on his previous experience that new content appeared on the screen when switching tabs, so he moved the TalkBack focus manually to the top of the screen (Explore-by-touch mode). Also, he confirmed the item he was currently selecting is one of the items in the navigation bar because TalkBack provided feedback as "Selected."
- 3. He mentioned it did introduce inconvenience and confusion.

Self-guided task 5

Demographic information: Age 33; Gender Woman; White

- 1. TalkBack didn't adjust its focus automatically when she selected any tabs inside the Booking.com app.
- 2. "Oh, we're still on the same navigation bar after I hit one of the items inside."
- 3. "It would be helpful when a tab is selected, TalkBack moved its focus to the first element on the newly loaded screen."
- 4. However, she relied on his previous experience that new content appeared on the screen when switching tabs, so she moved the TalkBack focus manually to the top of the screen (Explore-by-touch mode).
- 5. She mentioned it caused much inconvenience and confusion.