User Evaluation Script.

Researcher 1 (Sark): controls and narrates the user evaluation
Researcher 2 (Yizhou): fills in 'participant information form' and takes keyframes during test
Researcher 3 (Ward): controls the Spotify applications and focuses on the interactions with Topplr
Researcher 4 (Ferdi): starts the video recording, takes keyframes, ends it, imports it, and prepares video 'stimulated recall interview'

The participant is taken into a meeting room where the setup is already prepared for the actual test; a laptop showing a newspaper article, and to the right the Topplr interface. The participant is asked to sit down behind the laptop so s/he can be introduced to the evaluation session.

[TOP 50 NEDERLAND PLAYLIST ON SPOTIFY]

Introduction

Duration: 3 minutes

Researcher 1:
"Hi, _____. My name is _____, and welcome to this user evaluation study. For an elective, we created this interface that is able to interact with a music player. So you can simply interact with your music without grabbing your phone, or the use of for example the Spotify application on your laptop."

Action by researcher 1: press the button on top of Topplr in order to start the first song. Then press it again to pause it.

"First we would like to ask you some initial questions: How old are you? Gender? Do you listen to music when you are working on school work? What devices/music services do you use for that?"

Action by researcher 2: writes down everything the participant answers in the dedicated form.

Researcher 1:
"Thank you for that. Right now, I will tell you a little bit about the interface and what you can do with it. After that is all clear, I will ask you to read a certain text, containing interaction ques, and answer some questions for us afterwards."

"So, what can you actually control with this interface? Like I showed you before you can play and pause the music"

Action by researcher 1: press the button on top of Topplr in order to start the first song.
Action by researcher 3: start the first song through Spotify

Researcher 1:
"Furthermore, you can also skip a song in case you don't like it by tumbling the interface to the side."

Action by researcher 1: gently tumble the interface in order to skip towards the next song.
Action by researcher 3: skip to the next song through Spotify.

Researcher 1:
"The last interaction that you can perform, is controlling the music volume, by twisting the interface in either the right direction to turn the volume up, or twisting the interface in the left direction to turn the volume down."

Action by researcher 1: first turn the interface clockwise to turn the volume up, and then counter-clockwise to turn the volume down.
Action by researcher 3: turn the volume up and down through Spotify.

Researcher 1:
"So you can either play/pause the music, skip songs, and adjust the volume. Do you have any questions at this moment about the interface? _____"

Familiarization

Duration: 1-2 minutes

Researcher 1:
"If you would like, you can try some of the different interactions that we suggested in order to get a better feeling of how it would be."

Action by participant: participant interacts with the interface in an unforeseen order. In this stage it is important that the aspect of "magic" is established and the interface works properly according to the participants expectations.
Action by researcher 3: interacts through Spotify according to the actions performed by the participant.

Researcher 1:
"Now you are a bit familiarized with the interface, we will shortly begin with the test. I want you to know that we're testing the interface itself, not you. You can not do anything wrong here. So if you make mistakes it won't be a problem."

"Before we begin I would like to let you know that we want to video record the test, so we can analyse that to see how you interact with the interface. Therefore, we prepared a small consent form that we need you to read and if you agree sign before we can actually start."

Action by researcher 1: hand over the consent form. The participant carefully reads this and either agrees or not.

Testing

[LOW-FI BEATS PLAYLIST ON SPOTIFY]
Action by researcher 3: prepares Spotify playlist

Researcher 1:
"Now we are going to start with the actual text, so we will also start the video recording. In a moment you will get an English text before you that we want you to carefully read. After you have read the text you will be handed some questions about the text that we would like you to answer. That is why you can use this marker in order to highlight important parts in the text. While you are reading the text you will notice that it sometimes says for example *skip the song,* at that moment we would like you to perform that specific action with the interface while you try to continue reading the text."

Action by researcher 1: grabs the English text and puts it in front of the participant. The researcher will keep the questions to the side, however, make it visible to the participant so s/he knows what to expect of the questions. Then the researcher starts the music by pressing the top of Topplr.
Action by researcher 2: start stopwatch simultaneously with the beginning of the video
Action by researcher 3: starts playlist through Spotify
Action by researcher 4: start video recording simultaneously with the stopwatch

Researcher 1:
"Do you have any questions at this moment for me? Remember that you can't do anything wrong, just focus on the text and try to perform the actions with the interface that you encounter in text itself. You may now play the music and start reading the text."

Action by researcher 2 and 4: carefully observe the actions of the participant, note down timeframes of interesting actions, and note down what happened. What question can we ask?
Action by researcher 3: carefully observe the actions of the participant according, and mirror the interactions through the Spotify app.

Action sequence as presented in text (in *italics*):

Play music - start reading text

1. Volume up
2. pause music
3. play music
4. next song
5. volume down
6. next song
7. volume up
8. next song
9. volume down
10. next song
11. volume up
12. volume down
13. next song

Pause music when done

Action	no. of appearances in text
Play music	1+1
Pause music	1+1
Volume up	3
Volume down	3
Next song	5

Evaluation

Goal: Whether Topplr (peripheral interaction) can be performed in the user's periphery of attention? How much mental resources are needed to perform certain actions?

Through **RSME**

1. Press the top button (Play music)
2. Press the top button (Pause music)
3. Counter-clockwise twist *Topplr* (Volume down)
4. Clockwise twist *Topplr* (Volume up)
5. Tumble *Topplr* (Skip a song)

6. Reading the text
7. Flipping the paper
8. Highlighting texts
9. Holding the marker
10. Reaching out *Topplr*

Stimulated recall Interview:
Questions to ask:

- How did you find the overall experience of interacting with your music through this interface?

- Differentiate ways of performing interaction
    - How do you usually perform these actions (changing volume, skip a song, play n' pause) (on your laptop)?
    - What is the difference between the two?
    - Which one do you prefer?

- Attentional resources
    - How do you feel about the interactions with *Topplr*, either simple or more towards complex?

- Would you consider the use of this interface to be in your everyday working routine?

- We saw that you tended to hesitate sometimes while performing a specific action, where there any reasons for this?

Observer:
- How many triggers (given commands in the texts) did they skipped?
- Did participants look at *Topplr*, how many times did they perform?
- Did they make any mistake?
- Did they look at the Samsung speaker instead of *Topplr?*

Feedback from Saskia:

- Everyone knows that it is about the interface, and not about the text itself.
- Even if I think that it is about the answers, participant still won't be concerned.
- A game would be a better implementation of gaining focus.
- Saskia thinks it will work, there is an ethical aspect that you might consider.
- Deception is a tricky thing, but be careful about that.
- You could even give them the questions, if it doesn't takes too much time.

- Question about RSME scale: you can do multiple scales on one sheet. Because the participant will try to compare it anyway.
- What will you do if someone misses all the intended interactions?