

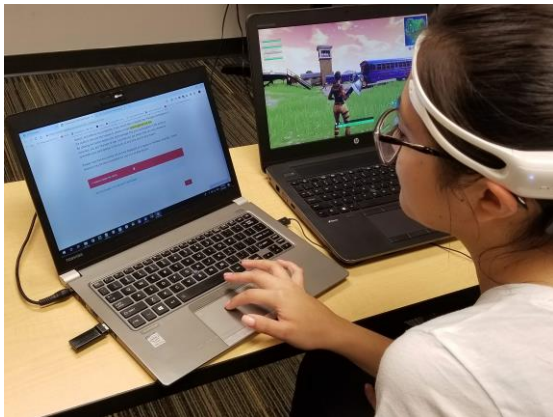
STUDY DESIGN

FOR ITERATION 1:

1. Participant arrives at LAB for Initial Round of Testing at meeting time.
2. They are debriefed about nature and purpose of study.
3. Participants sign an informed consent form online.



4. They are allowed some time to rest before initialization of research process.
5. They are asked to fill a pre-game survey before starting iterations.



2.1 Select the following that best describes your caffeine consumption for the day



☐ Caffeine equivalent to less than one cup of coffee



☐ Caffeine equivalent to one cup of coffee or energy drink

☐ Caffeine equivalent to 2 - 3 cups of coffee or energy drinks

☐ Caffeine equivalent to 4 or more cups of coffee or energy drinks

2.2 How many hours of sleep did you get last night?



☐ Fewer than 4 hours



☐ 4 to 5 hours

☐ 5 to 6 hours

☐ 6 to 7 hours

6. Participants are henceforth asked to put on the Emotiv Insight Headset after being briefed about how to put it on, and contact quality (at least 80%) is observed.



7. Participant logs into their fortnite account, and selects Solo mode for Iteration 1, starting from 1/3 randomized locations.



```
PS C:\Users\vaibhav\Documents\GitHub\cortex-example\nodejs\src> node .\Iteration1_BCI.js
Welcome to Iteration 1 for BCI

What is your name? Jason Nguyen
What Round are you playing? 2

You will start at Location 3: Fatal Fields
READY? (y/n)y

Counting Down: 5
Counting Down: 4
Counting Down: 3
```

8. Before the game begins, participant enters their name into the User Interface, and then starts the game.
9. The Engagement value of a participant is observed for a total of 3000 times while they are playing a game in each Round.
10. Upon conclusion of a Round, participant is asked to complete a post-round survey, talking about game satisfaction and comfort level (PANAS-SF).

Fortnite_ShortSurvey

iQ Score: Great | Published

▶ Informed Consent (1 Question)
Block Options ▼

▶ Pre-survey Information (7 Questions)
Block Options ▼

▶ Pre-PANAS (10 Questions)
Block Options ▼

▶ Post Survey (3 Questions)
Block Options ▼

▶ PANAS (10 Questions)
Block Options ▼

▶ Demographic questions (5 Questions)
Block Options ▼

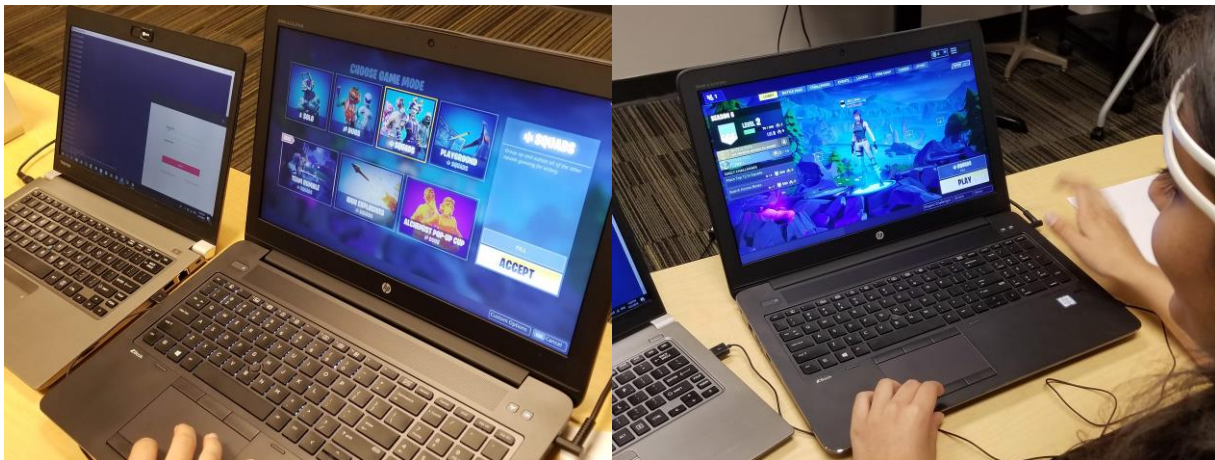
11. Participant is allowed to rest for 5 minutes.
12. Steps 7-11 are repeated 2 more times.
13. Participant takes a post-game survey.
14. Participant is showed their collected data and thanked for their participation and time.

FOR ITERATION 2:

1. Participant arrives at LAB for Initial Round of Testing at meeting time.
2. They are debriefed about nature and purpose of study.
3. Participants sign an informed consent form online.
4. They are allowed some time to rest before initialization of research process.
5. They are asked to fill a pre-game survey before starting iterations.
6. Participants are henceforth asked to put on the Emotiv Insight Headset after being briefed about how to put it on, and contact quality (at least 80%) is observed.
7. Participant logs into their fortnite account, and selects Solo mode for Round 1 starting from the beginning of the game.



8. Before the game begins, participant enters their name into the User Interface, and then starts the game.
9. The Engagement value of a participant is observed for a total of 3000 times while they are playing a game in each Round.
10. Upon conclusion of a Round, participant is asked to complete a post-round survey, talking about game satisfaction and comfort level (PANAS-SF).
11. Participant is allowed to rest for 5 minutes.
12. Participant selects squad mode for Round 2, and starts from the beginning of the game.



13. The Engagement value of a participant is observed for a total of 3000 times while they are playing a game in each Round.
14. Participant takes a post-game survey.
15. Participant is showed their collected data and thanked for their participation and time.