Laboratory #5: Electroencephalography & reaction time

Purpose:

The purpose for this lab is to get a better understanding of electroactivity of the brain. In this lab we will demonstrate action potential velocity and synapse delay of visual and auditory reflexes. We will be using raw EEG to read a combination of different frequencies; we will be using Electroencephalography to see how it works and get our reaction time results.

Procedures:

1. Using the IWX/214-unit and laptop with the right program
2. Adding the EM-100 adapter
3. One person oversees the event maker and clicking the button and clicks on the clicker every 5-10 seconds out of sight of their partner
4. The second student sits in a chair facing the laptop in a position for them to click the ‘enter’ key as quick as possible.
5. When done, auditory will be the next trial.
6. 20The clicker needs to be near the student's ear and click the enter button when they hear it
7. Each partner will take turns doing both trials.

Results:

Visual:

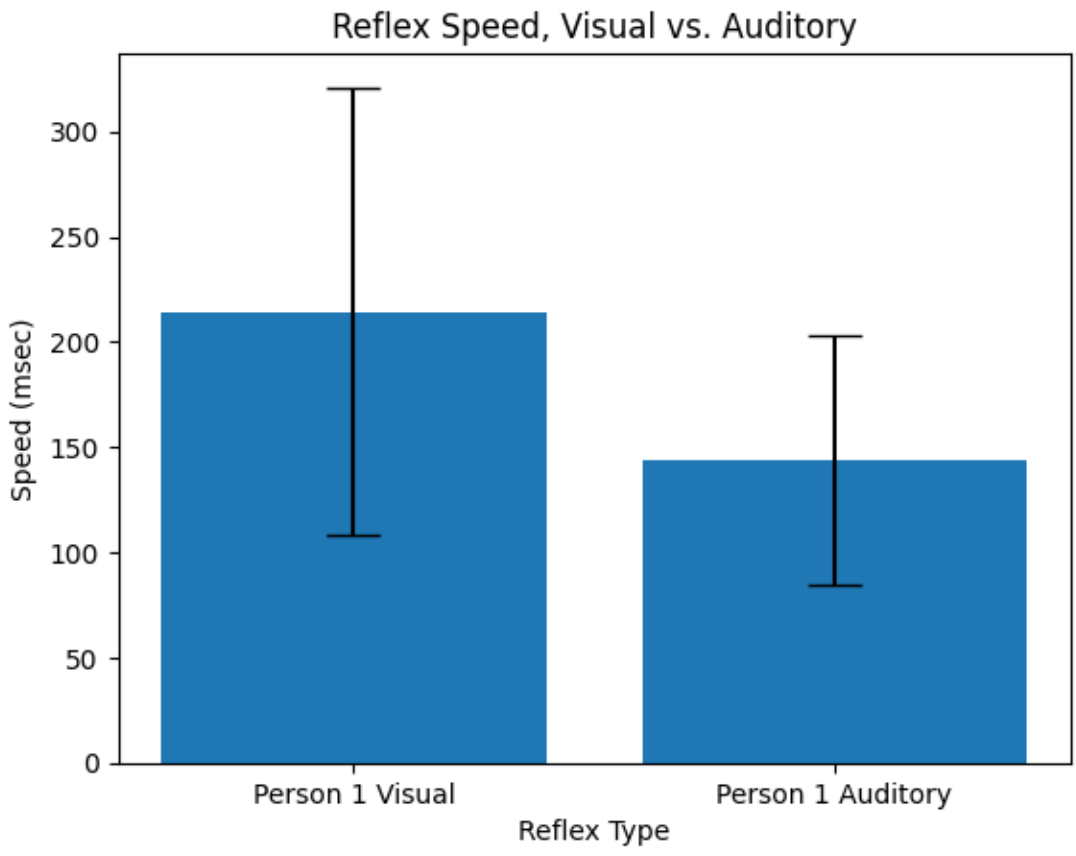
Trial	Time
1	105
2	255
3	185
4	175
5	250
6	130
7	205
8	130
9	205
10	255
Average:	195

Standard deviation: 54.95

Auditory:

Trial	Time
1	125
2	170
3	240
4	210
5	195
6	80
7	175
8	145
9	10
10	155
Average:	163

Standard deviation: 66.60



Discussion:

This lab results were predictable results. Auditory response was quicker than visual response, we tend to have a faster twitch response when we hear something rather than when we see something coming our way. My results had a standard deviation of 54.95 for my visual response and a 66.60 standard deviation for auditory response. One thing that I think could make the visual response quicker would be to add color to the marks being made when the clicker is activated, our eyes tend to be more attracted to colors rather than just a black and white screen.

Conclusion:

To conclude, I was able to get a better understanding of Electroencephalography and my visual and auditory response. Some things that could help get faster twitch response would be to add color to the visual test and to be in a quiet room when doing the auditory test.