

## Lab5- Electroencephalography and Reaction Time

Bio125

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### Purpose

The purpose for these activities was to measure how our bodies react to the concepts of auditory and visual reflexes, how alert the person is, and how quick the person responds to a stimulus.

### Specifics

#### 5-A: Recording Visual and Auditory Reaction Times

Procedure. To get things started: • Before you turn anything on, be sure the IWX/214 unit is plugged in, and that the IWX/214 unit is connected to the laptop by USB cable.

Open the LabScribe3 program by clicking on the LabScribe3 icon on the desktop.

In the second from the top row (the row that says “File Edit View Tools Settings Advanced External Devices Help”), click on the “Settings” tab. A little more than halfway down the drop-down window should be a tab called “Human Nerve.” Click on that tab and that should lead you to the second tab called “Auditory-Visual Reflexes,” click on that tab. Close the pdf file that opens automatically, you don’t need it

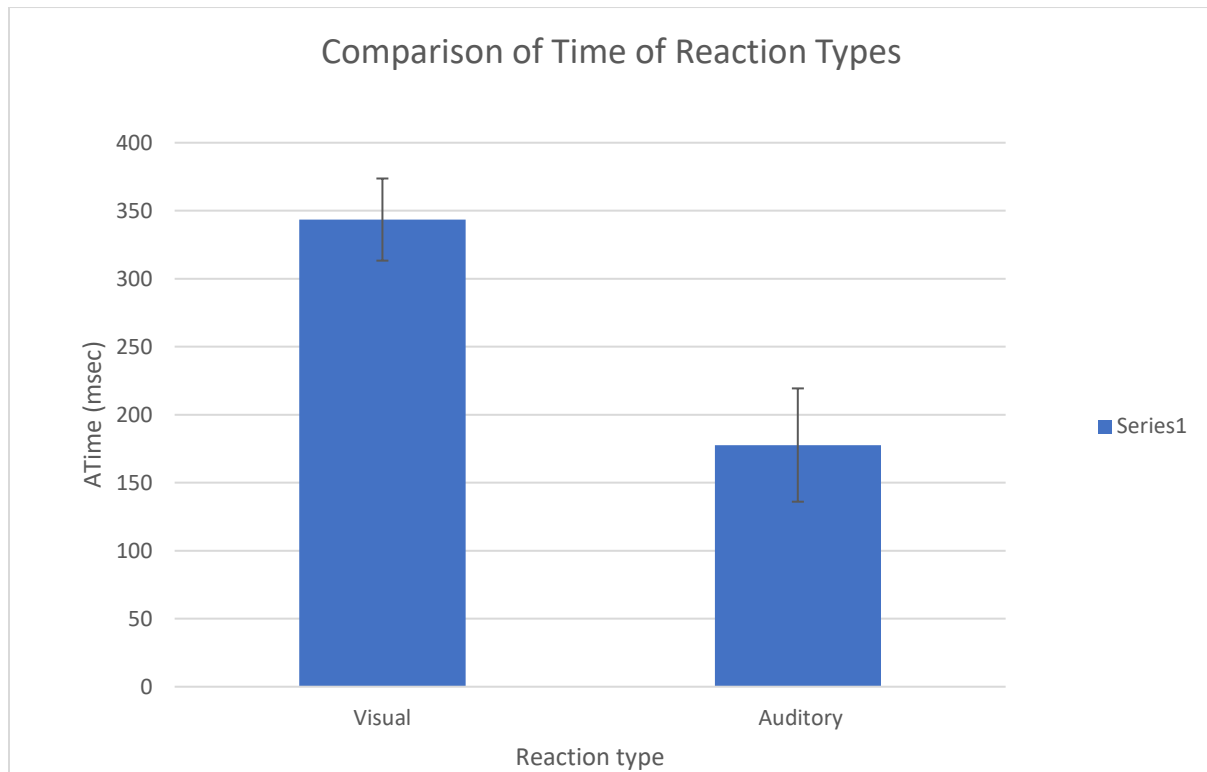
Pair up with a lab partner and arrange yourselves according to this recording setup: • The student subject should sit in a chair facing the laptop computer with their hand in position so that they can press the “Enter” key as quickly as possible. • The lab partner holding the EM-100 Event Marker should stand out of sight to the subject. They need to be able to quietly press and release the button of the Event Marker once the test begins.

Repeat this for ten trials but the lab partner should be sure to click the Event Marker button at irregular intervals. After ten trials click the “Stop” button

Look at the top right of the screen where it says “T2–T1” = \_\_\_\_\_ msec. Record that number and repeat this step for all ten trials and for each of the students using your laptop. Calculate the average for the ten trials.

For Auditory, I self-recorded my reaction times at Playback.fm

## Results



## Discussion

This activity was very interesting. These results are my visual and auditory responses, and I noticed that the difference between the visual and auditory is significant.

## Conclusion

For this activity I learned how to make error bars. I also knew about the T-test and that anything less than 0.05 p-value is significant. It was very interesting to know how to calculate my own visual and auditory responses and see the significant differences between them from the P-value results.