Description about Experiment

**Objective** : To understand how the brain responds to visual stimuli, using a non-invasive brain acquisition device known as EEG.

**Requirements**:

1. Must have no past neurological diseases
2. Must not have high blood pressure

**Explanation** :

The experiment will last for a duration of 45min - about 20-30 min prep and 10 min of recording. I will place an EEG cap on your head as shown in the image below.

A picture containing indoor, wall

Description automatically generated

In the rubber holes I will place about 10 water electrodes, it is just a foam like paper rolled up into a cylinder which will be placed on your head. These will be used to record brain signals in the form of electrical pulses from your scalp by using an acquisition device (an amplifier). The recording is absolutely safe! There is no need to worry about an electrical shock as the voltage of the signal we will be recording is below 100 micro V and the acquisition device has inbuilt protection and isolation circuits to isolate any currents.

Throughout the recording you will be asked to keep your chin and head on a designed holder to prevent head movements and your arms and legs will be strapped lightly to a chair using Velcro straps to prevent bodily movement as the brain signal is extremely sensitive to movement. The recording will take place in a relatively dark room.

During the prep time, I will set up the cap, insert the electrodes, fasten your head to the holder and your legs and arms to the chair and setup up a software on my laptop. During the 10 minutes of experiment time you will only need to look at a computer screen which will display three events: first, is a flickering dot followed by a solid dot - repeating multiple times; second, is something known as the odd ball paradigm which I will explain once I meet you in person; third is closing your eyes for a set duration . For these 5 minutes it would be great if you can try to not move your eyes, tense your forehead, move your eye-brows, clench your teeth, and move your nose or mouth. I understand that this is a lot to ask but like I mentioned the brain signals are extremely sensitive to any sort of movement hence any sort of movement can mess up the signal.

**Criteria** : Not to use any hair product/conditioner on the day of recording

**Reward** : $10 Coles gift card