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PSY 310: Lab in psychology

Lab report no. 1

Experiment Name: Adaptive Staircase Procedure

Introduction:

Staircase procedure can be defined as trying to determine the threshold value using the assistance of blocks of trials. This is actually known as the kind of psychophysical and experimental technique through which we can get to know about perception threshold, sensory detection and also helps us to find decision making thresholds. It was not aimed at the identification of the perceptual threshold or discrimination capacities. Some of the applications include: It is utilized to identify an individual's threshold by changing stimulus. Other procedures to determine stimulus threshold are two-alternative forced-choice. (2AFC) procedure and Full field stimulus threshold. It consists of adapting a stimulus's level of difficulty according to a participant's responses and is time-saving when it comes to determining a threshold as opposed to static techniques.

Procedure of designing the experiment is as followed:

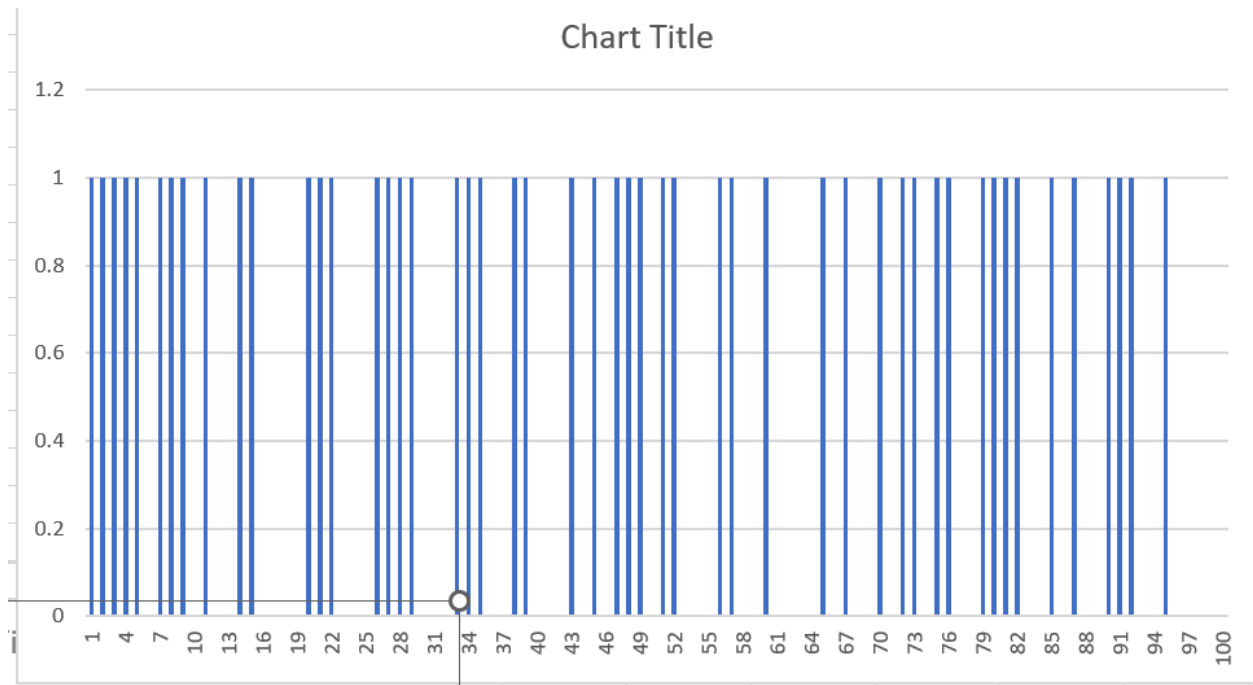
1. Open the Psychopy Application on your computer.
2. We need to make fixation, in which duration should be kept at 0.5 seconds.
3. Then grating should be made and the time duration should be only 0.5 seconds.
4. For the whole experiment, we need to keep Right and Left keys only for use in the experiment.
5. Codes will be added in the starting and at the end of the experiment, so that experiment can run effectively.

6. Initially a static component is added to help in forming a stimulus in between trials.
7. Then afterwards we can run the experiment by keeping the n-responses at 100.
8. Running the experiment, responses will be recorded and will be stirred in the csv file in our laptop's storage system.

Results and Discussion:

After the successful completion of the experiment, we needed to calculate the absolute threshold, this means to calculate the average of the last 5 trials particularly from the tilt section. Average threshold that was collected was 20 for the last 20 trials.

Graph of Responses per trials is as followed:



Discussion:

The Adaptive Staircase method has many of its own. For example, it is very time consuming. And also it creates threshold estimation which does not

create proper information and detail about participants cognitive processes, it only focuses on the experiment part. According to the graph and responses made, there is 79 percent of the accuracy in responses.

References:

1. Material provided on google classroom
2. PsychoPq Application