

# Worksheet for SPSS Session

04/11/2022: 13:00-16:00

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## Using SPSS

SPSS can be accessed using Imperial Software Hub, we will be using **SPSS 28**. After logging-in to Imperial software hub, search for SPSS, and click to install or launch (if already installed).

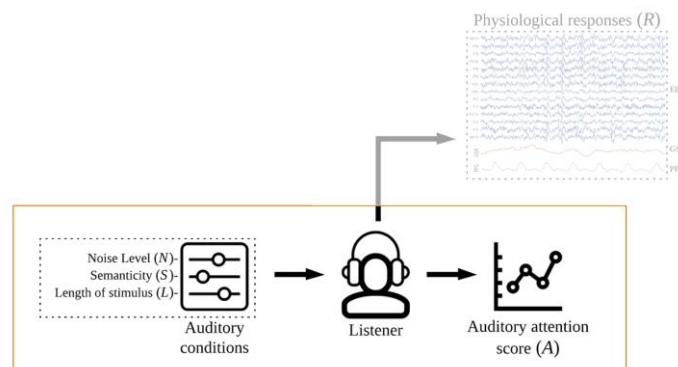


SPSS 28  
IBM

SPSS comes with a massive range of options and analysis techniques; however, we will only focus on a very few useful features. For exploring more detail on tutorials, please refer to <https://www.spss-tutorials.com/basics/>

## Data

For this work session, we will be using PhyAAt (Physiology of Auditory Attention) dataset, which is a dataset during an auditory experiment, from 25 subjects. The dataset includes physiological measurements; however, for this session, we will use part of the data – attention level under different auditory conditions. Full detail of experiment and dataset is available here <https://phyaat.github.io/>.



Please download following two datasets (csv files)

1. Dataset-1: Auditory attention level with different conditions - [https://nikeshbajaj.github.io/PhyaatDataset/PhyAAt\\_AttentionScoreData\\_v1.csv](https://nikeshbajaj.github.io/PhyaatDataset/PhyAAt_AttentionScoreData_v1.csv)
2. Dataset-2: Demographics and self-ratings of subjects for their language skills - [https://nikeshbajaj.github.io/PhyaatDataset/PhyAAt\\_Demographic\\_Rating\\_v1.csv](https://nikeshbajaj.github.io/PhyaatDataset/PhyAAt_Demographic_Rating_v1.csv)

One of the articles including statistical analysis using same dataset is published and can be found here - <https://academic-publishing.org/index.php/ejel/article/view/2296>. Though,

this article goes in little more details, however some ideas of describing the datasets can be found useful.

## Descriptive Statistics

First, we will use SPSS to describe the datasets with figures and tables.

- Descriptive statistics
- Box plot
- Bar plot

## Comparing Groups

- Independent tests (parametric, non-parametric)
- Dependent tests (parametric, non-parametric)
- Normality test, Equal variance test

## Correlation

- Pearson Correlation, Spearman Rank Correlation
- Scatter plot