Physiological Data to Analyze and Improve the User Experience
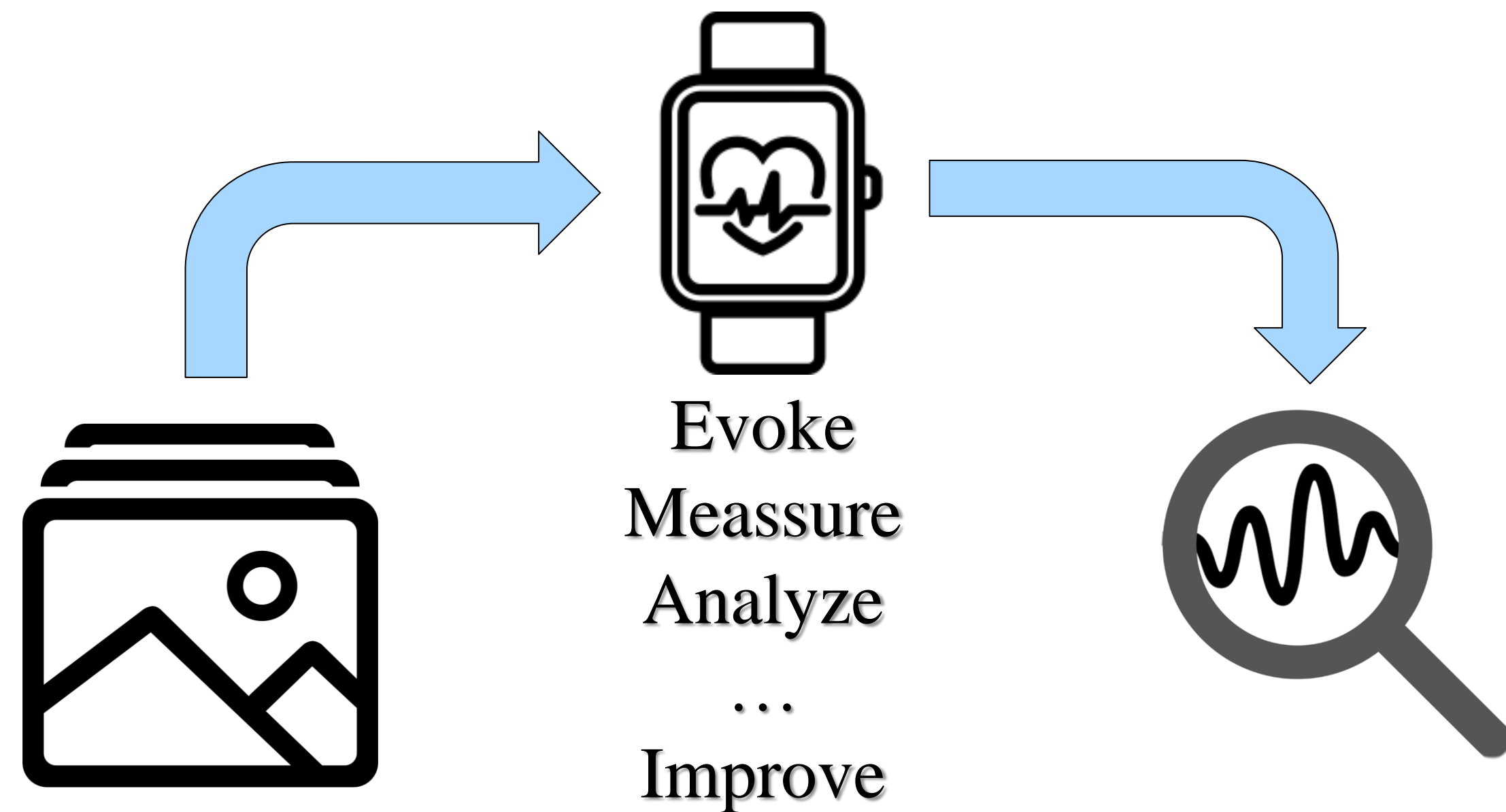
Author: Daniel Štěpánek, xstepa61@vutbr.cz
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Brno Univerisity of Technology, Faculty of information technology
2021

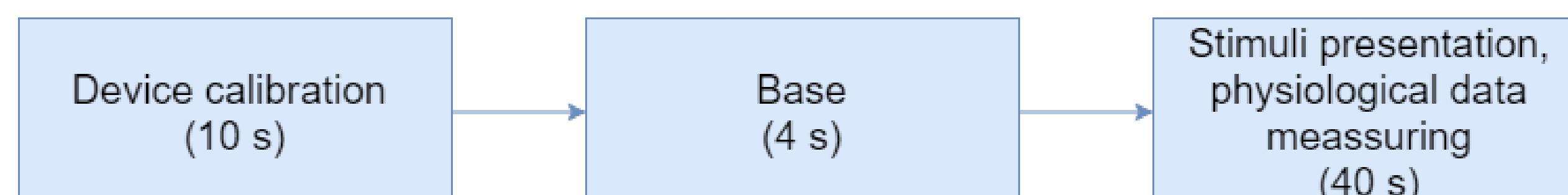BRNO FACULTY UNIVERSITY OF INFORMATION OF TECHNOLOGY TECHNOLOGY

Introduction

Evoke
Meassure
Analyze
...
Improve

Experiment

Participants: 9 men, 7 women (μ = 25, σ = 7.6)

Metrics: heart rate, heart rate variability, electrodermal aktivity (EDA)

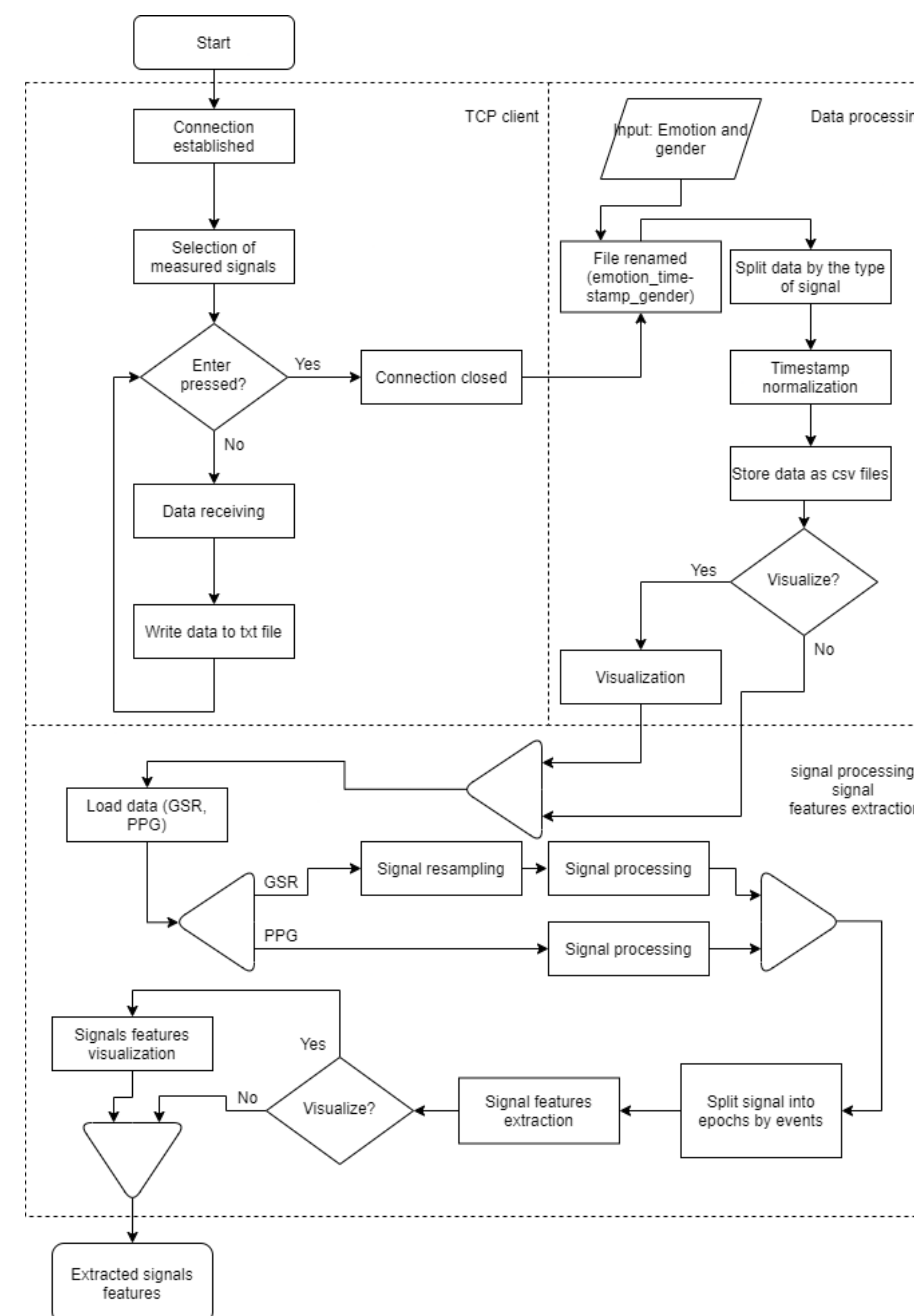**Emotions:** bored, positive, happy, fear, confusion, disgust

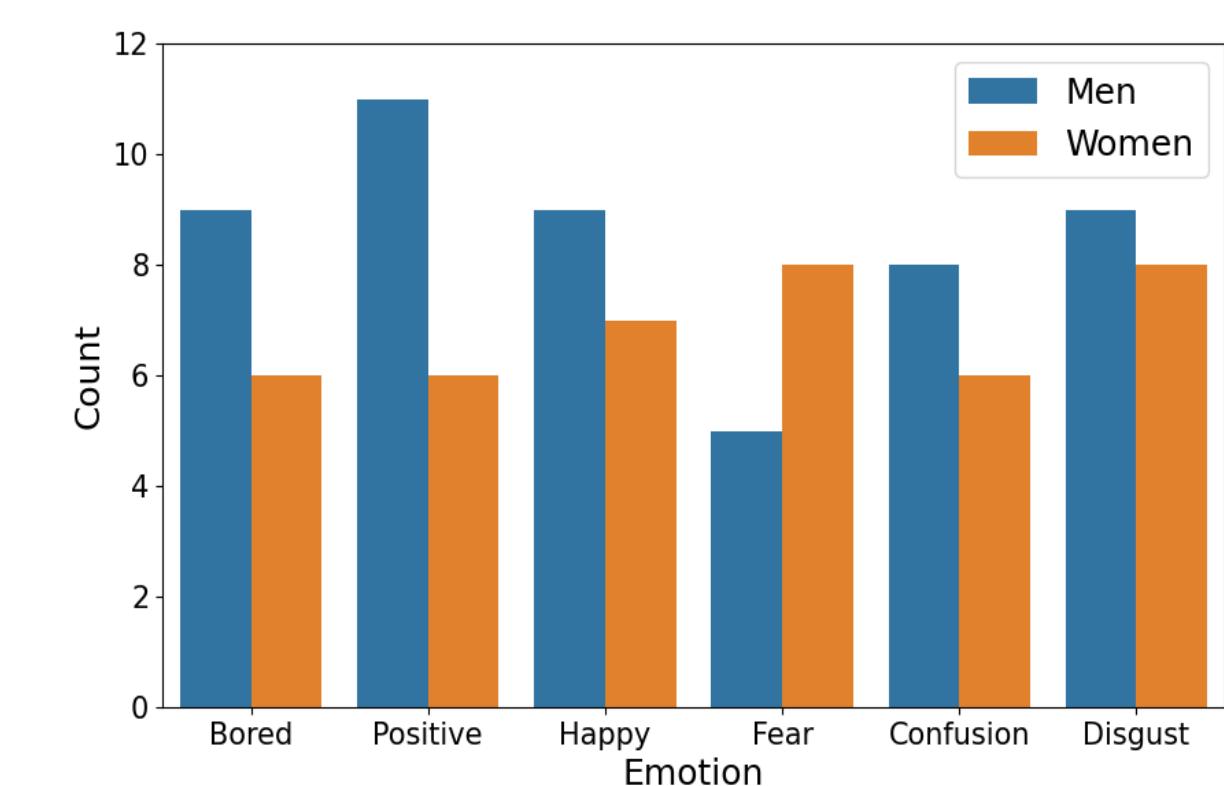**Stimuli:** 6 presentations, images, videos, sounds

Measurement:

Measuring device:
Empatica E4

Device calibration (10 s) → Base (4 s) → Stimuli presentation, physiological data meassuring (40 s)
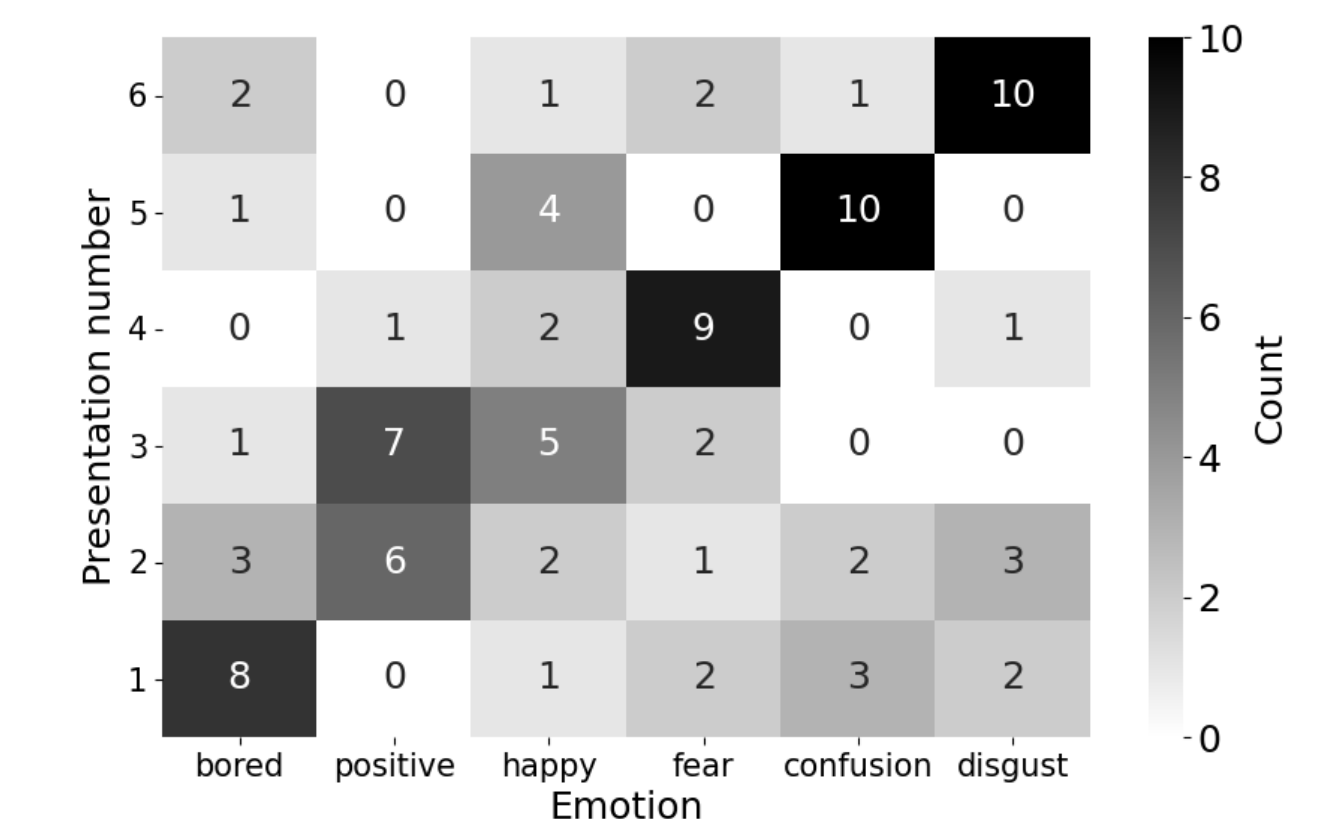
Data processing

Results

Number of samples for each emotion

Frequency of emotions for individual stimuli

Average values of the main signal components