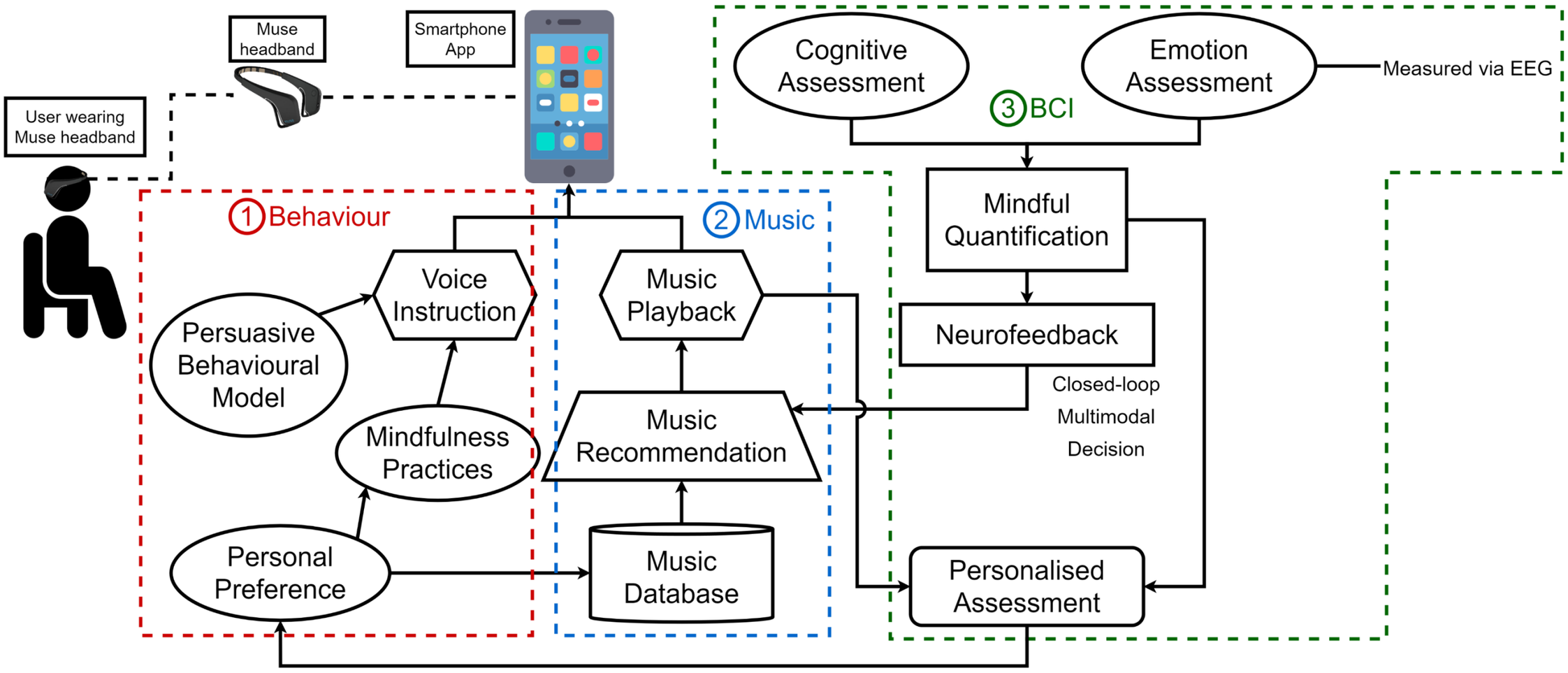
NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

My-ndful Buddy

An Interactive, Personalised Mental Wellness Aide

Student: Low Soo Yee Calvin Supervisor: Prof. Guan Cuntai



Project Objectives:

This project aims to develop an EEG neurofeedback mindful training application that helps users to relax and regulate stress through personalized music. The solution leverages neurofeedback and user preferences to provide music and feedback during meditation sessions. Music playback is personalised according to the user's taste and current state of mind. Feedback will be dynamic voice instructions helping users to regain mindfulness if they were to get distracted and offering expert guidance to during relaxation session.

Implementation & Outcomes

- Designed experiment with multimodal sensors to evaluate influences of music on relaxation
- Collected data from 32 subjects including EEG, PPG, GSR, Eye gazes, Reaction time, Respiration
- Novel multimodal EEG datasets for relaxation and emotion study

1 min	40 min	25 min
Resting State	Cognition Baseline Tasks	Music Listening Tasks
(Eyes Open / Closed)	*(Facial, Focus, Emotion, Arousal)*	*(5 music blocks with eye masks ON)*