Standardized Format for 15 Minute Project Presentation

EEG

Aim. To present the information that is required at the Project Review Meeting to evaluate (1) the scientific impact, (2) the feasibility and (3) the CCNi resource demands of each research project that will use CCNi resources (including fMRI, MEG, EEG, TMS and the GRID). It is suggested that the PowerPoint slides are kept to the strict minimum required for a 15 min presentation.

Slide 1. The Problem

- 1.1 Background
- 1.2 Hypothesis
- 1.3 Why is it important (what is the projected impact)?
- 1.4 Envisaged publication?

Slide 2. The Experimental Design

- 2.1 Participants: Number, handedness, gender, age, medication/drugs, health status
- 2.2 Stimulation and Response: physical characteristics of stimuli (modality, duration, location), timing (inter-stimulus-interval (ISI), stimulus-onset asynchrony (SOA), number of blocks and duration, trials per block and duration, type of response required, response-stimulus-interval, software used for stimulation and response recording
- 2.3 Experimental conditions: Categorical vs. parametric design, number of trials per condition (Signal-to-Noise Ratio), ordering (blocked vs. random design), triggering details
- 2.4 Combination with other techniques: MEG, fMRI, TMS, eye-tracking

EEG recording:

- 2.5 Electrode positions, HEOG, VEOG, reference electrode
- 2.6 Sampling rate, amplifier filter setting (e.g., notch filter etc.)

Slide 3. The Analysis

- 3.1 Artifact treatment: rejection criteria (drifts, channel blocking, excessive EEG activity)
- 3.2 Ocular artifact correction (e.g., PCA, ICA, regression)
- 3.3 Off-line digital filtering, baseline correction
- 3.4 ERPs: ERP components studied, averaging vs. single trial analysis, measurements of amplitude and/or latency
- 3.5 Time frequency (TF) methods: wavelet analysis, FFT, etc.
- 3.6 Brain source estimation: dipole analysis, source coherence, etc.
- 3.7 Statistics: justification of approach

Slide 4. Expected Results

- 4.1 ERP component effects
- 4.2 TF band effects
- 4.3 Source estimation
- 4.4 What is novel in terms of approach and/or analysis

Slide 5. Summary of requested CCNi resources

- 5.1 Stimulation
- 5.2 Response
- 5.3 Number of scanning hours

5.4 Analysis tools
5.5 GRID use?
5.6 Storage space

Slide 6. Ethics and grant funding