Methodology

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Department of X, Name of Institution

Course number: Course Title

Instructor's Name Surname

Month Day, Year

Methodology

Participants

A total of 60 participants (30 males, 30 females) aged between 18 and 30 years were recruited from the local community through flyers and online advertisements. Participants were screened for any history of neurological or psychiatric disorders prior to participation.

Materials

The experiment was conducted in a quiet and dimly lit room to minimize distractions. Participants were seated comfortably in front of a 15-inch laptop computer with a standard keyboard and mouse. The experimental software was programmed using PsychoPy version 3.2.4 (Peirce, 2007) running on a Windows 10 operating system.

Procedure

Upon arrival at the laboratory, participants were greeted by the experimenter and provided with a brief overview of the study objectives and procedures. Written informed consent was obtained from each participant prior to the commencement of the experiment.

Participants were then instructed to complete a demographics questionnaire, which collected information on age, gender, and educational background.

The experiment consisted of three main phases: training, task execution, and debriefing.

Training Phase

During the training phase, participants were familiarized with the experimental task and the response mappings. They were instructed to respond to visual stimuli presented on the screen by pressing corresponding keys on the keyboard. Participants were given ample time to practice the task until they felt comfortable with the procedure.

Task Execution Phase

Following the training phase, participants proceeded to the task execution phase. In this phase, participants were presented with a series of visual stimuli consisting of images and

words on the computer screen. They were instructed to respond as quickly and accurately as possible to each stimulus by pressing the appropriate key on the keyboard.

The experimental task consisted of three conditions: congruent, incongruent, and neutral. In the congruent condition, the visual stimuli were presented in a manner consistent with participants' expectations. In the incongruent condition, the visual stimuli were presented in a manner that conflicted with participants' expectations. The neutral condition served as a control condition, presenting stimuli with no inherent association or conflict.

potential order effects.

Debriefing

Each condition comprised 50 trials, resulting in a total of 150 trials across all conditions. The order of presentation of conditions was counterbalanced across participants to control for any

Upon completion of the experimental task, participants were debriefed about the study objectives and provided with an opportunity to ask questions or express any concerns. They were reimbursed for their time and participation and thanked for their contribution to the study.

Data Analysis

Response times and accuracy rates were recorded for each participant across the three experimental conditions. Statistical analyses, including repeated-measures analysis of variance (ANOVA) and post-hoc tests, were conducted to examine differences in performance across conditions. The significance level was set at $p < 0.05$ for all statistical tests. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0.