

CONSENT FORM

Study Title:

Motor learning and performance with different levels of gas supply

Purpose of the Study:

The purpose of this research project is to identify the control processes employed by the brain when interacting with ones' environment.

You will be asked to make simple point-to-point hand movements with a stylus in order to move a cursor to a target displayed on a computer monitor. During the course of the experiment, the difficulty level of the task may change. We will be recording the position of your finger/the stylus as you displace the cursor. To obtain these measures, we will ask you to move your finger/a stylus along a digitalized tablet placed in front of you. During a part of this eye-hand coordination task, you will receive a gas flow through a nasal canula which either contains regular air or air with an altered gas mixture. There should be no discomfort or fatigue associated with these procedures. We will also ask you to fill out questionnaires for categorizing purposes; these include questionnaires related to your demographic information, history involving concussion and/or diabetes, sport/exercise activity, handedness, your subjective task load throughout the experiment and your current mood.

Your estimated participation time will be about 2 hours, separated into one one-hour and a half session and potentially another half-hour session on a second test day. You will be given breaks between tasks if you wish.

Risks/Discomfort: No risks are foreseen; participation in the present study would involve no more risk than risks associated with computer tasks performed during daily life. There are no discomforts be expected by breathing an altered level of oxygen under normal ambient pressure conditions. You may feel little discomfort with wearing a nasal canula. There is the inadvertent risk that anonymity will not be kept. However, every effort will be made to ensure confidentiality is maintained. All data and participant information will be kept separate and in a password protected computer. Signed consent forms will be kept in a locked cabinet in a locked room. All lab personnel and participants are recommend complying with CDC and university guidelines/rules for COVID-19 mitigation, including vaccination, social distancing, and wearing masks. Further information about security procedures will be provided with a COVID-19 handout.

Benefits: There are no direct benefits from participation in the study. However, the information gained from this study will be used to gain insight into how the central nervous system coordinates movements when performing eye-hand coordination tasks. Individuals belonging to the LSU student community may receive extra credit for research participation in one of their classes if available.

Investigators:

If you have any questions regarding the study, please contact (M – F, 9:00 am - 5:00 pm)

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Performance Site:

School of Kinesiology, Motor Behavior and Cognition Laboratory (70b HPL), Exercise Physiology Laboratory (Gym Armory, B13), Biomechanics Laboratory (Gym Armory, B2)

Number of Subjects: Overall, 50-100 participants will be recruited for this study.

Participant Inclusion: Individuals from the community of Baton Rouge, including the college community, who are between the age of 18 and 75 years old.

Participant Exclusion: Individuals who do not have normal or corrected-to-normal vision and/or hearing. Individuals who are unable to use their hands unassisted. Individuals who have psychological, neurological, and/or other altered physical conditions affecting control of the upper dominant limb and/or eyes. Individuals who are pregnant.

Right to Refuse: You may choose not to participate or to withdraw from the study at any time without penalty or loss of any benefit to which you might otherwise be entitled.

Financial Information: You will receive no financial compensation for participating and you have no financial obligations as result of participation.

Privacy: Every effort will be made to maintain the confidentiality of your study records. Results of the study may be published; however, we will keep your name and other identifying information private. Other than as set forth above, your identity will remain confidential unless disclosure is required by law.

Signatures:

The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Dr. Alex Cohen, Chairman, LSU Institutional Review Board, (225)-578-8692, irb@lsu.edu, www.lsu.edu/irb. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

I, _____, agree to be in a study to understand how the brain controls movement. I will have to slide a finger or a pen to move a cursor across a touchscreen and to press keyboard buttons in accordance to targets presented on displays. I can decide to stop being in the study at any time without getting in trouble.

Subject Signature: _____ Date: _____