UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

UNIVERSITY OF LIMERICK RESEARCH ETHICS COMMITTEE

RISK ASSESSMENT FORM – PROCEDURES INVOLVING HUMAN SUBJECTS

Procedure No	**SS058**
Title of Procedure	Cognitive and Motor Skill Tests
Name of Assessor	Dr. Phil Kearney
Assessment date	July 2019
Does this procedure already have ethical approval ?	**YES**
If so, enter ethical number	**Approval No: 2019_11_SS058_RA** **End Date: July 2029**

1 **Please provide a brief description of the procedure**

1. **Mirror tracing**: This is a standard recognised psychological test of motor functioning. It involves tracing a mirror image of a star pattern with a hand-held stylus. The number of times the participant deviates from the pattern and the total length of time taken to complete the pattern will be recorded. There are manual versions (with paper and pen) and automatic versions (consists of an aluminium plate with a non-conducting black star pattern anodised into the surface). There is no associated risk for the participant
2. **Stroop test**: This is a standard recognised psychological test of cognitive functioning. It involves a set of words written in various colours with the subject being required to say the colour rather than the word. The time taken to complete the test and number of errors made are recorded. There is no risk associated to the participant.
3. **Simple and Choice Reaction Times**: This measures subject reaction speed by asking the subject to press a button corresponding to a light when the light is turned on. In the simple situation the subject is informed of the light that will be turned on whereas in the choice situation they have a choice of two or more buttons and receive no prior information on which light will be turned on. There is no associated risk for the participant.
4. **Anticipation timing**: Visual-motor co-ordination/coincident timing: an individual is asked to sit at the end of a runway of lights, dominant eye looking along the runway, index finger of preferred hand on a button. They hear 'ready' and an amber light (warning light) comes on. Then they watch the light move along the runway and press the button to coincide with the light reaching the end of the runway. An alternative exercise is for them to break a beam of light with their hand or an object, for example a tennis racquet, to coincide with the light reaching the end of the runway. The time between the arrival of the light and the pressing of the button/breaking the beam of light is recorded. There is no associated risk for the

participant.

5. **Tapping test**: Subjects are required to move a stylus back and forth between two targets. The number of taps is recorded per unit of time. The test is used to test the speed accuracy trade off: as speed between the targets is increased, the accuracy tends to be reduced, and as the target size is reduced, greater accuracy is required, and speed tends to be reduced. There is no associated risk to for the participant.

6. **Balance Stabilometer**: A stabilometer is a platform on which a subject stands, which can deviate up to 15° either side from the horizontal. Subjects must balance the board at the horizontal for as long as possible. A timer measures how long the participant remains in balance. Due to the small range of motion of the board, there are minimal risks to the participant.
7. **Balance beam**: Timed static balance test: in barefeet and with arms by sides, an individual attempts to balance for up to 30 seconds (a) on two feet, (b) on one leg. Dynamic balance and use of vision: an individual is asked to walk along a 1" wide 10m long line on the floor, (a) looking at their feet, (b) looking 10m ahead but seeing line through vertical peripheral vision, (c) without vision, (blindfolded), while being analysed for accuracy of performance. There is no associated risk to the participant.

2	**Location in which the procedure may take place**
X	PESS Building Facilities
X	Other locations when ethical approval has been granted

3	**Eligibility of subject(s) to be used**
X	PESS student (U.G. or P.G.)
X	University staff or campus personnel
X	Members of the general public engaged in research projects granted ethical approval.

4	**Potential risks. To be explained <u>before</u> obtaining consent**
X	None, or minimal discomfort only

5 Action to be taken in the event of an foreseeable emergency

The procedure will be terminated if the volunteer shows any sign of distress.
Standard first aid procedures may be required depending on the severity of the situation. The following standard procedure should be followed in the event of an incident occurring in the PESS building / UL Facility:

1. Stop the procedure. Position the subject to prevent self-injury.
2. If appropriate, raise the subject's lower limbs to improve blood flow. Should the subject fail to respond summon help immediately.
3. Check vital signs airways, breathing and circulation (ABC)
4. If required attempt CPR as soon as possible.
5. Requesting Help: Emergency Contact telephone numbers are listed on laboratory door:

• During normal working hours 9am-5pm, use lab phone to contact the Student Health Centre on **061-20**2534
• Outside of normal working hours, or if the Student Health Centre number is engaged/busy, use the laboratory phone to dial 3333 for UL security personnel who will then contact the ambulance

service. If in PESS, contact one of the PESS First Aiders – names are listed on the PESS laboratory door.
6. When contacting the above clearly state: Location, Building, Room Number, Nature of Incident/Accident and provide a contact number.
7. Complete the UL 'Accident & Emergency' form (completed by the investigator, not the volunteer).

Forms available on UL HR website: https://www.ul.ie/hr/hr-policies-procedures-and-forms-z
If an emergency or incident occurs offsite, follow the local procedures for dealing with such an event.

Ensure you are aware of the offsite local safety procedures in the event of a foreseeable emergency.

6	**Level of supervision required for procedure**

X	PESS lecturing, research staff and teaching assistants
X	PESS postgraduate researcher
X	Trained PESS undergraduate students
X	Trained PESS postgraduate students

7	**Other documentation required for this assessment ?**

X	Pre-test subject questionnaire
X	Detailed protocol
X	Participant Information Sheet
X	Participant Consent Form
X	If participants are under 18 years, parental information sheet and consent form, and child assent form

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Name of Assessor	Dr. Phil Kearney	Assessment date	July 2019

8 **Committee approval for experiment**

	X	Granted
Others, please specify		

Comments/conditions

Signed _____ Date 18/11/19

(Head of Department)