Protocol for a safe, phased upscaling of subject testing by CLCG staff and students outside the University buildings

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1 Introduction

During the summer, the CCT has granted permission for the resumption of participant-based research conducted at the Center for Language and Cognition Groningen (CLCG), carried out in labs inside the Harmonie building. This protocol describes the guidelines researchers have to adhere to when testing participants outside of the University buildings, i.e. at schools and at the participant’s home.

A number of research groups within the CLCG that use various methodologies to collect their data. These methodologies can be divided into three categories, based on the distance that can be kept between the researcher and the participant at any given point (see Table 1). Category A refers to experiments that can be conducted with 1.5 m distance. Category B refers to experiments that don’t involve much physical contact but do require the researcher to be within 1.5 m of the participant during set-up. Category C refers to experiments that need prolonged physical contact with the participant during the set-up. Category C experiments will not be resumed prior to January 2021 and therefore do not form part of this protocol.

<table>
<thead>
<tr>
<th>Category</th>
<th>Type of experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A</td>
<td>Behavioral experiments (e.g., reaction time experiments)</td>
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<tr>
<td></td>
<td>Acoustic speech production experiments</td>
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<td></td>
<td>Other experiments that can be performed at 1.5 m</td>
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<td>Category B</td>
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<td>Other experiments that require the researcher to come close to the participant</td>
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<td>Category C</td>
<td>EMA experiments</td>
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<td>EEG experiments</td>
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<td></td>
<td>Other experiments that require prolonged physical contact</td>
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</table>

The experiments will take place in primary schools or at the home address of the participants. Commencing research with human participants outside of the University buildings is based on the assumptions that 1) the protocol contains adequate guidelines and rules of conduct, 2) there is mutual trust among those involved, and 3) we have good control and enforcement of the guidelines and agreements made in this protocol.

The following principles also apply:

1. **Voluntariness**: researchers and support staff should not feel obligated to commence their work outside the University buildings.
2. **Work from home as much as possible**: use of test location outside of the University buildings is granted to researchers and students only for the purpose of running the experiments, and performing tasks that cannot be done from home.
3. **Planning**: research will take place according to a planning or schedule that has been discussed with the external parties involved.
4. **With approval only**: staff may only perform testing activities after approval by the CLCG director Gertjan van Noord (g.j.m.van.noord@rug.nl).
5. **Safety measures**: RIVM guidelines will be strictly adhered to at every location. These include (but are not limited to) keeping appropriate distance between those present, and by washing or disinfecting hands frequently. The researchers will bear responsibility for compliance with the guidelines and agreements by all involved.
6. **Consent**: All human participants have been informed about the research and agree with the safety measures that have been taken. This will be recorded with a consent form signed by the participants beforehand.
The current protocol inherits all requirements that apply to the testing locations mentioned in this protocol. Regulations regarding primary schools can be found on po.lesopafstand.nl/lesopafstand/weer-op-school/.

At-risk participants (as defined by the RIVM, see https://www.rivm.nl/en/novel-coronavirus-covid-19/risk-groups) CANNOT yet be tested.

The remainder of this document describes those measures that apply to on-site research with human participants by researchers of CLCG. We focus on research in categories A and B (as mentioned above, category C is suspended for now).

2 Research: general requirements
Participant-based research follows premises that are similar to “contactberoepen” as defined by the RIVM (e.g., researchers often come close to participants, research equipment often has to be used on multiple participants). The aim is to minimize the time a participant and researcher spend together, based on evidence that aerosolized SARS-CoV-2 particles can stay active indoors for quite long (up to 3 hours, see this source). To ensure this, the following procedure will be put in place.

2.1 Safety
- Disinfectant is available at both the entry of the building and next to the entrance of the testing location (f.e. a class room).
- **Face masks are not used**, because it can hinder the interaction with the participant and will in some cases impede good testing results (see section 2.8 below for an explanation).
- Plastic screens will be placed between the researcher and the participant in situations where it is not possible to maintain 1.5 m distance.
- Should a participant or experimenter feel unwell during the testing session, testing is stopped immediately.
- For eye-tracking research (category B experiment), participants are asked to apply the calibration sticker to their own foreheads with the use of a mirror. Parents may assist their children.

2.2 Steps to be completed prior to participant arrival
- Ask participants whether they have any symptoms (through a questionnaire/phone call).
- Ask (the parents of the) participants to provide signed informed consent beforehand (over the internet or via the post) to minimize time spent on this in the lab. The form also notifies participants that the University of Groningen has taken all necessary precautionary measures, but that the risk of COVID-19 infection cannot be fully precluded.
- Provide clear instructions (in a document or alternatively a video describing the complete procedure) on where participants should go (parking, walking route, pictures of where to wait at the building). The cellphone number of the experimenter will be communicated as well.

2.3 Lab preparation
- Air out the room (open the door (and windows)). Only the experimenter touches the door handles of the lab (they open the door for the participant).
Disinfect the necessary surfaces before the arrival of a participant.

All used material, surfaces, and door handles are thoroughly cleaned after each participant and prepared for the next participant. A bin (with lid) is present in the hallway just outside of every testing space and will be emptied every day. Before meeting the participant, the researcher disinfects his or her hands.

2.4 Arrival of the participant

- Participants are asked to disinfectant their hands upon entry of the building.
- Waiting time should be minimal; participants will be asked to arrive at the location no longer than 5 minutes before their appointment.
- Participant and experimenter disinfect hands when entering the testing space at all times. Disinfection gel will be on a table near the entrance of the testing space.
- In smaller spaces: to minimize contact between the experiment and the participant, a moveable Plexiglas screen can be installed to separate the participants’ area from the experimenters’ area.

2.5 Scheduling and planning.

- At most one accompanying parent or caregiver can join the child participant, who then also signs in the child. Siblings are not allowed to come along.
- A confederate participant (for interaction experiments, at least 1.5 m from the other participant) can also be present in the testing room provided that the conditions stipulated earlier are met.
- Participants cannot be tested immediately following each other. We will schedule enough waiting time between participants to ensure that the facilities can be properly cleaned, the space can be ventilated, and the risk of overlap between participants is minimized.
- Any physical presence in the testing space is reduced to a bare minimum. This also means that things that can be done at home should be done at home (e.g., informed consent, experiments that could be carried out online etc.).

2.6 Materials (generally) used by the participant

Behavioral experiments (category A):
- Keyboard
- Mouse
- Pen
- Headphones
- Table and chair
- Box with toys

Speech production experiments (category A):
- Keyboard
- Mouse
- Microphone and soundcard
- Headphones
- Laptop
- Table and chair

Eye-tracking experiments (category B):
- Eye-tracker
- Laptop
- Keyboard
- Mouse
- Headphones
- Pen
- Table and chair

Ultrasound experiments (category B):
- Ultrasound probe
- Ultrasound helmet
- Microphone and soundcard
- Headphones
- Laptop
- Table and chair

All above mentioned materials (if applicable for the specific experiment) are disinfected after each participant (with 70% alcohol). Plastic covers (or foil) for the keyboard and mouse are recommended, as is using removable foam covers for microphones.

2.7 After the experiment
- Air out the room (open the door (and windows)).
- All participant reimbursement is handled online through the participant portal. For child subjects a small wrapped gift may be presented.
- The experimenter walks each participant out, keeping an appropriate distance at all times and following the walking directions in the building.
- Participants are then asked to disinfect their hands once more and are signed out by the experimenter.
- Participants are presented with an information sheet that asks them to contact the researcher in case they develop (mild) COVID-19 related complaints following their visit to the testing space or at their home so that we may take proper actions.
- At the end of the testing day, experimenters also sign out and that day’s records are stored at a designated place.

2.8 Argumentation for not wearing a face mask

» At primary schools
We prefer that the experimenter does not wear a face mask when testing at schools, because even in experiments which are just ‘fun language games’, it is necessary to comfort the participants (i.e. children), which is easier without a face mask. Currently, children and personnel in schools are not required to wear face masks. An appropriate distance between the participant and test leader should of course always be kept and testing rooms should be well ventilated at all times.

» At participants’ homes
When testing participants at their home, wearing a face mask is not possible when the experimenter assesses or looks at emotions or facial expressions, for example when using the ADOS, an observation instrument to determine the degree of autism characteristics in adults and children. For some tasks of the ADOS, the results will not be reliable if the participant and
the researcher have to keep 1.5 m distance from each other due to the nature of the task (i.e., testing social behaviour and social interaction). Such an experiment would be classified as Category B (as defined in Table 1 above). As specified above, a plastic screen will be put in place when it is not possible to keep 1.5 m distance between the researcher and the participant.