

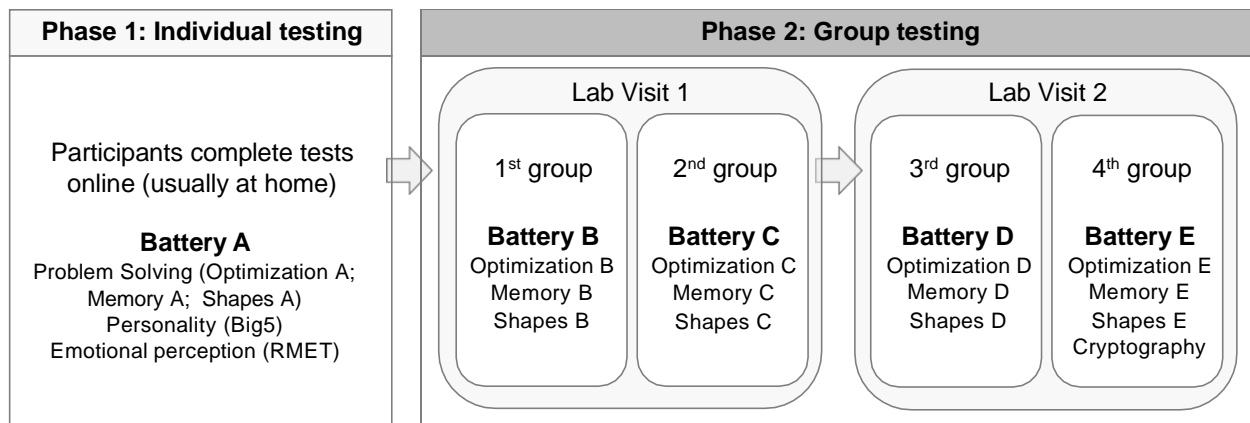
# Protocols for the Team Player Experiment

## 1. Overview

The experiment had two phases (summarized in Figure 1 of the paper, reproduced below):

- Phase 1: individual testing. Most participants completed this element outside of a lab environment (e.g. in their own homes). Comprehensive screenshots of the tasks are provided in “B\_Screenshots from the Team Player Experiment.pdf”. The tasks themselves can be viewed at <http://teamwork.hellogabe.me/individual-login/hdsl>.
- Phase 2: group testing. This phase of the experiment was conducted at the Harvard Decision Science Lab in Cambridge, Massachusetts. The remainder of this document describes the protocols for the in-person tests. Comprehensive screenshots of the tasks are provided in “B\_Screenshots from the Team Player Experiment.pdf”. Examples of the tasks can be found at <http://teamwork.hellogabe.me/participant-login/lab-round-1>.

**Figure 1: Overview of Experiment**



Notes: this figure describes the experimental design from an individual participant's perspective. Tasks are described in Section 2.2. Task batteries represent unique sequences of tasks. Participants never see the same exact task more than once. Lab visits involve 6, 9 or 12 participants, who were randomly allocated to groups of 3 people - see Sections 2.3 and 2.4 for details.

## 2. Summary of procedures for in-person group testing (Phase 2)

### Step 0: Room setup

Each group of three people worked face-to-face, in a separate room. The room contained:

- A rectangular table with 3 chairs
- 3 laptops. Each laptop was connected to wifi so that participants could access the task website.

### Step 1: participant arrival and randomization

When participants arrived, they were asked to sign-in. Participants were ordered according to their score on individual tests. If there were 'no shows' and the total number of people in a session was not a multiple of 3, then we asked for volunteers to take a show-up fee (\$5) and return to a different session.

Once participants arrived and were seated, experimenters went through the following procedure:

*Welcome everyone! My name is \_\_\_\_, thanks for joining us for today's session. The plan for today is for you to work on a set of tasks very similar to those that you completed in the individual, online assessments. Today we'll be working in person, in groups of three people.*

***First, we are going to jumble you up into groups of three people using randomization balls. Once you get your ball, keep hold of it for the whole session. It will tell you who you will be working with throughout the session.***

***Based on the randomization ball, we'll put you into your first group for today. After solving some tasks, you'll come back here after roughly 25 minutes. Then, we'll put you in your second group, and you'll solve some more tasks. All these tasks will be similar to ones you've done before.***

At this point, experimenters followed the randomization procedure (we had 3 blocks, based on individual skill: 'low', 'medium' and 'high'). Each group had a member from each block. Participants randomly drew balls from 3 bags, under the supervision of the experimenters. For example, in a session with n=9 participants, the three participants with the highest individual scores each drew a ball from the set {A,B,C}; participants with the middle three individual scores each drew a ball from the set {D,E,F}, and the remaining participants randomly drew a ball from the set {G,H,I}. Figure 2 provides an example of the randomization scheme.

**Figure 2 - Randomization Scheme**

Session with n=9		Session with n=12	
1 <sup>st</sup> groups (Battery B)	2 <sup>nd</sup> groups (Battery C)	1 <sup>st</sup> groups (Battery B)	2 <sup>nd</sup> groups (Battery C)
{A,D,G}	{A,E,I}	{A,E,I}	{A,F,K}
{B,E,H}	{B,F,G}	{B,F,J}	{B,G,L}
{C,F,I}	{C,D,H}	{C,G,K}	{C,H,I}
		{D,H,L}	{D,E,J}

### **Step 2: First group of the session**

Experimenters then showed each group to the room where they would be working. Once they arrived, we asked each participant to login to a laptop, using their SONA email address, and the group ID that was assigned to them by the experimenter.

At this point, experimenters emphasized that this phase of the experiment was focused on group performance:

***“Remember you’re working as a group, even though you each have your own laptop. There are no individual scores: you’re working as a team to solve problems.”***

From this point, the remainder of the instructions were provided by the website we built for the purposes of the Team Player experiment. See “B\_Screenshots from the Team Player Experiment.pdf” for details.

### **Step 3: Return to the waiting area**

After the group completed their first set of tasks (shapes, optimization, memory), the website asked them to return to the waiting area to be allocated to their second group. Once all groups had finished, experimenters used the randomization balls – and the randomization scheme illustrated in Figure 1 – to allocate people to their second group.

### **Step 4: Second group of the session**

This step was identical to Step 2. Experimenters again showed each group to the room where they would be working. Once they arrived, participants logged into a laptop using their SONA email address, and the group ID that was assigned to them by the experimenter.

At this point, experimenters again emphasized that this phase of the experiment was focused on group performance:

***“Remember you’re working as a group, even though you each have your own laptop.  
There are no individual scores: you’re working as a team to solve problems.”***

From this point, the remainder of the instructions were provided by the website we built for the purposes of the Team Player experiment. See “B\_Screenshots from the Team Player Experiment.pdf” for details.