

Manual of Operations for  
Intervention Comparative Effectiveness for Adult  
Cognitive Training (ICE-ACT)

NCT03141281

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# MANUAL OF OPERATIONS

*Comparative Effectiveness Study*



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## STUDY BACKGROUND

### Description of study background & design

#### Goals of study

Age-related perceptual and cognitive declines are associated with difficulties performing everyday tasks required to remain independent [1]. Encouraging improvements in cognitive abilities have been shown for a variety of short-term interventions such as group and individual training on abilities (e.g., the ACTIVE trial; [46]), digital games [6, 23], aerobic exercise [26], and combined treatments [5]). The rationale for these interventions is that they can be expected to support the maintenance of functional independence in older adulthood given the relatively strong relationship between Instrumental Activities of Daily Living (IADLs) performance and cognitive abilities [1], and the range of IADLs required for independence.

There are, however, several limitations to the design and interpretation of broad ability-level cognitive training described above [43]. First, over a century of research on skill acquisition has shown relatively narrow transfer and strong domain specificity for acquired skills [20]. In fact, sometimes a narrow training package may be more effective than training of general abilities, namely broad training, depending on the type of task and target outcome [33]. Given the range of interventions that have shown some efficacy, application of this knowledge to deploying cost-effective population-level interventions requires assessing their *comparative effectiveness*.

Second, relatively few intervention studies have assessed independence using metrics other than cognitive ability measure proxies. For example, many studies have used laboratory task outcomes such as the Useful Field of View (UFOV) test - as a predictor of driving crashes [22] - rather than using performance data from real or simulated driving. Third, practice effects on cognitive measures that are repeated from baseline to post-training test can make it difficult to estimate true change, although increased participant age tends to minimize practice effects and alternate form use can almost eliminate practice effects for some tests [11], though not for all tasks during relatively long periods of intervention [e.g., 37, 38, 39]. Finally, placebo effects, particularly expectation effects, are a serious threat to interpreting intervention studies [8].

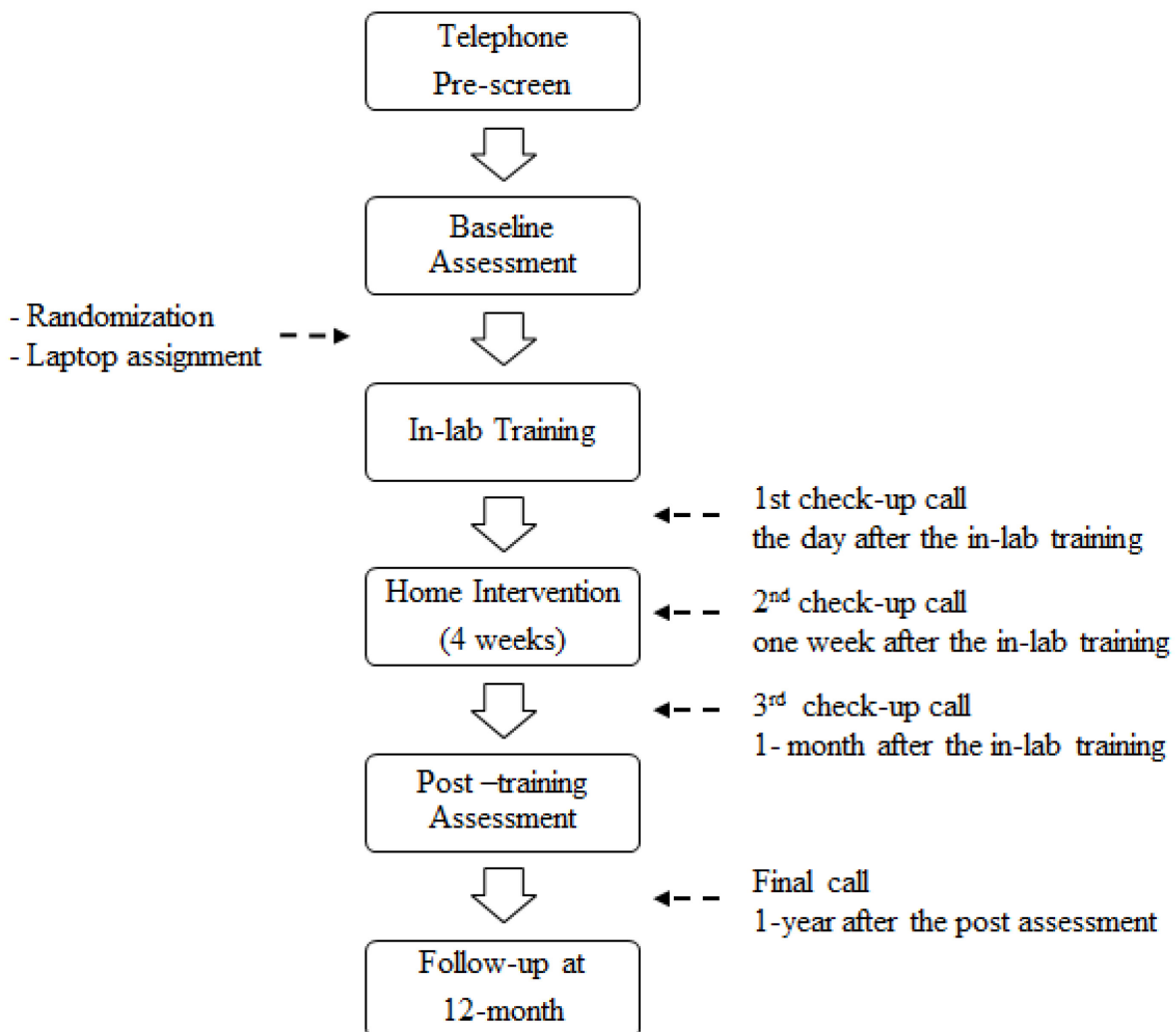
This randomized trial was designed to compare the effectiveness of broad and directed (narrow) technology-based training on basic perceptual and cognitive abilities in older adults and on the performance of simulated tasks of daily living. Participants were randomly assigned to four training conditions: (1) a brain game; (2) a video game; (3) IADL training for both fraud avoidance and driving; or (4) an active control condition, involving puzzle solving. This trial seeks to provide guidance not just about what works, but also what works best for a given investment (i.e., time, money) in older adults. The current trial was specifically designed to

address the several methodological limitations mentioned above, including: (1) the development of direct measures of IADL performance, targeting areas related to risks for catastrophic failure (e.g., crashes in driving, losing financial resources to fraud); (2) the use of alternate forms to provide more precise estimates of treatment effects (for both cognitive and IADL measures); (3) inclusion of an active control condition; and (4) measurement of expectation effects (as recommended in [43]). In this paper, we provide a primer to the design of this trial and describe the baseline characteristics of our sample.

## **Overall design**

This trial is registered on *ClinicalTrials.gov* (Identifier#: NCT03141281). The trial is a single-site randomized controlled trial (RCT), conducted at Florida State University (FSU; Tallahassee, FL), one of four funded sites of the National Institute of Aging Center for Research and Education on Aging and Technology Enhancement (CREATE). Following a telephone screening and baseline assessments, eligible participants were randomized into one of four conditions: (1) Posit Science's BrainHQ; (2) Rise of Nations, a PC-based video game; (3) Instrumental Activities of Daily Living (IADL) training, on both AARP's Driver Safety Course, and a Financial Fraud training course developed for this intervention; (4) active control group, playing a suite of three tasks (i.e., Sudoku, crossword puzzles, and word search). Once participants were assigned to a condition, they received a laptop with specialized software for their condition. Participants received in-lab training designed to encourage familiarity with how to operate a laptop, and the necessary components for their task. Participants were asked to train on their assigned condition for four weeks at home, and return for two scheduled days of post-training assessments, as well as a follow-up assessment at 12 months. The overall study design and contact schedule is summarized in Figure 1. The trial had highly standardized protocols for recruitment, screening, assessment, intervention administration (including manuals sent home with participants), and data transfer from intervention devices. The Institutional Review Board (IRB) at Florida State University, approved the protocol for this trial.

## Timeline & Project Flowchart



# CERTIFICATION OF ASSESSORS AND INTERVENTIONISTS

All assessors and interventionists who obtain informed consent and/or administer study protocols have already completed CITI training course. In addition, undergraduate and post-bachelor's research assistants have been taught proper procedures and will be directly supervised by the study PI's or someone listed as a co-investigator of research staff in FSU IRB.

## SAMPLE RECRUITMENT & RETENTION

### Inclusion & Exclusion Criteria

#### **Inclusion**

Participants were considered eligible for the study if they: (1) were 65 years of age or older; (2) planned to stay in the Tallahassee, Leon County Area (Florida, USA) for the next 12 months; (3) had a valid driver's license and drove at least once a month; (4) had adequate cognitive ability, assessed via a phone interview using the Wechsler Memory Scale III (story A score of  $\geq 6$  or story B score of  $\geq 4$  if they failed story A). Participants were also required to speak English.

#### **Exclusion**

Participants were ineligible if they: (1) reported terminal illness with life expectancy less than 12 months; (2) reported or exhibited a disabling visual condition assessed as the inability to read printed material; (3) reported or exhibited a disabling speech hearing and comprehension condition assessed by inability to hear and comprehend the screener's instructions; (4) reported or exhibited a disabling speech production condition assessed as the inability to respond with comprehensible English speech to the screener's queries; (5) reported or exhibited a disabling psychomotor condition assessed as the inability to use a keyboard and pointing device.

Participants were also ineligible if they had ever: (1) completed the AARP Driver Safety course (<https://www.aarp.org/auto/driver-safety/>); (2) played the Rise of Nations video game ([https://en.wikipedia.org/wiki/Rise\\_of\\_Nations](https://en.wikipedia.org/wiki/Rise_of_Nations)); (3) trained with Posit Science's Brain HQ platform (<https://www.brainhq.com>); or (4) trained with Aptima's Mind Frontiers video game, as part of a previous intervention [44].

## Recruitment guidelines

Participants will be recruited using our standard recruitment protocols such as advertisement in newspapers, radio, and TV; placement of flyers in community organizations; attendance at senior functions in community agencies and churches; and contacts with our community partners; volunteers registered in a subject pool at Institute for Successful Longevity (ISL) at FSU (<https://apps.psy.fsu.edu/isl/account/participant.php>).

### Telephone script for recruitment

**If no answer, voicemail:** "Hi, my name is \_\_\_\_\_, I am calling from Florida State University. We are looking for volunteers over the age of 65 to help with our paid research projects. If you are potentially interested, please give us a call back at (850) 645-2309. Thank you, have a great day!"

---

**If pickup:** "Hi, my name is \_\_\_\_\_, I am calling from the Florida State University CREATE Lab. Is \_\_\_\_\_ there? We are looking for volunteers over the age of 65 to help with our paid research projects."

Do you have a few minutes for us to talk?"

**If busy:** "When would be a good time for me to call you back?"

- write the day/time in the call back section.

-If they change to not interested, read not interested section below.

**If not interested:** "Ok, may we keep you on our list for future studies?"

-If no, change status to "don't call"

-If yes, change status to "not interested"

If interested:

"Let me take the next few minutes to tell you about our study. The purpose of this research project is to better understand how training programs are related to cognition. Compensation for this study is 140 dollars."

The main task of this study involves at home laptop software training lasting 1 month. You will be asked to train for roughly 20 hours spread out over a one month period. In addition to at home training, you will have to visit our lab at FSU at a few points throughout the study.

Do you have any questions so far?

To start the study, you will be asked to come for two days of surveys, cognitive tasks and a driving simulator task. On the third day, you will be trained to use the laptop hardware and software. All lab visits will last roughly 1-2 hours.

Similarly, you will be asked to come in for these tasks after completing the home training, and for a 1 year follow up as well.

I know that was a lot of information, do you have any other questions I can answer for you?

Are you interested in participating?"

**If not interested:** Thank you for your time, may we call you for future studies?

**-If yes:** change status to not interested.

**-If no:** change status to "don't call"

**If interested:** Great, do you have about 10 minutes for me to ask some questions to determine your eligibility?

**If no:** When would be a good time to call you back?

- write the date and time to call back

**If yes:** Before I begin, I want to let you know:

1. All the information that you will be giving me in the next few minutes will be kept confidential.
2. There are no right or wrong answers.
3. If you don't know, can't answer or feel uncomfortable in answering any questions, please let me know.



# BATTERY



# TAKE-HOME MANUALS

## Hardware

### Computer User Guide

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## **⚠Read this first⚠**

Be sure to follow the important tips given here to safely use your computer. Failure to do so might lead to discomfort, injury, or cause your computer to fail.

## **⚠Handle your computer with care⚠**

Do not disassemble or modify your computer.

Do not attempt to replace the internal battery.

## **⚠Prevent your computer from getting wet⚠**

Do not immerse your computer in water or leave it in a location where it can get wet. To avoid spills and the danger of electrical shock, keep liquids away from your computer.

## **Charging your Computer:**

In this study, it is recommended that you keep your computer connected to the power adapter and plugged into an electrical outlet. While the power adapter is plugged into the computer the computer will remain charged and ready for use at any time. Find an area where you can use your computer and mouse on a table, connect your power adapter, and have the cables out of the way. If it is storming outside, please disconnect your laptop from the wall outlet.

**Figure 1.1**  
Ac power adapter  
for  
computer.



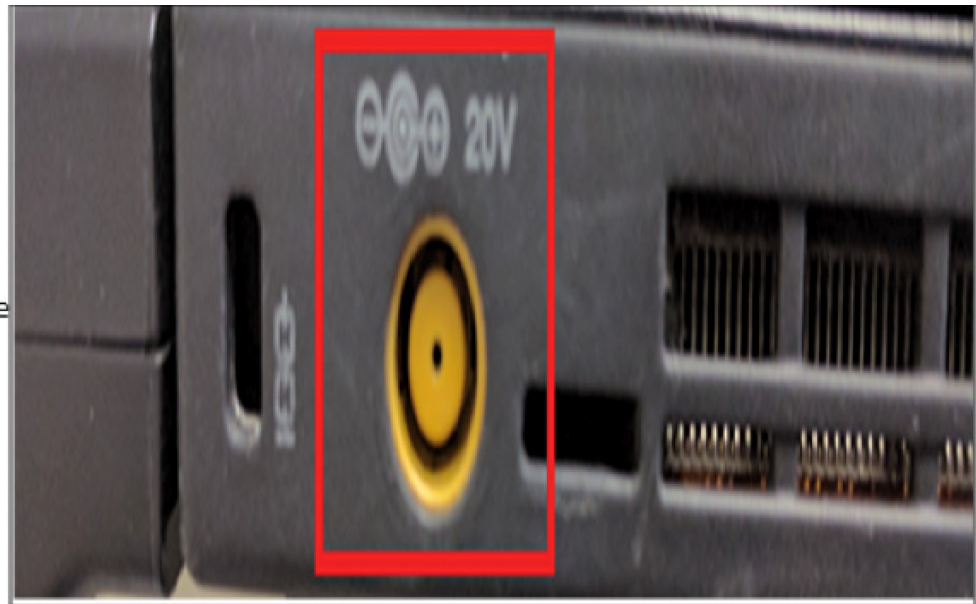
Be sure to take these steps in the order in which they are given here:

1. Find the ac power adapter that was provided for the computer shown in Figure 1.1.

**Figure 1.2**  
Power jack  
on the left side of the  
computer.

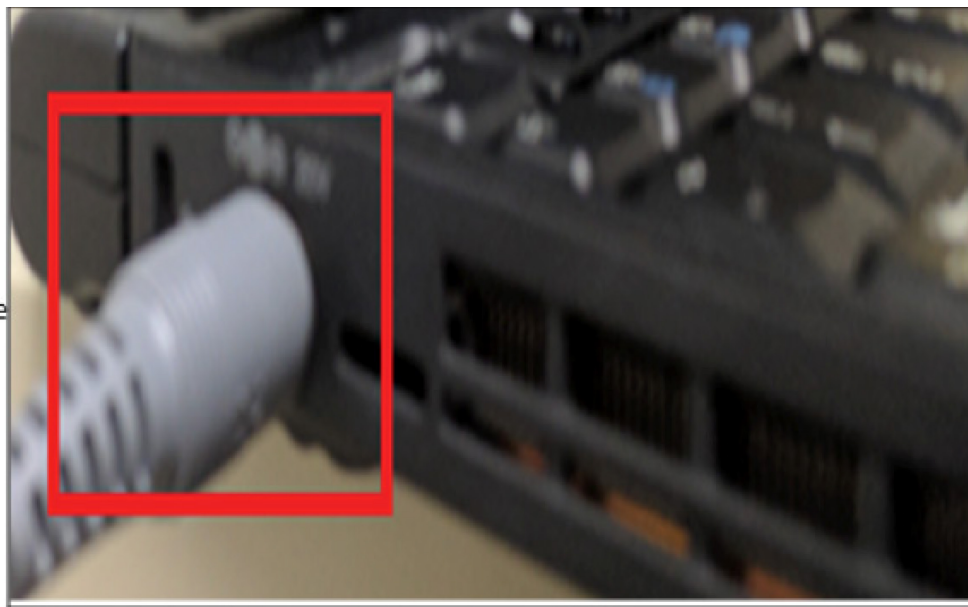


**Figure 1.3**  
Power jack  
on the left side of the  
computer.



2. Find the power jack on the computer located on the left side of the computer as shown in Figure 1.2 and Figure 1.3.

**Figure 1.4**  
Power jack  
on the left side of the  
computer.



3. Connect the yellow tipped connector of the ac power adapter into the power jack shown in Figure 1.4.
4. Plug the ac power adapter into an electrical outlet.

**⚠Protect yourself from the heat that your⚠  
computer generates:**

When your computer is turned on or the battery is charging, the base, the palm rest, and some other parts may become hot.

Extended contact with your body, even through clothing, could cause discomfort or even a skin burn.

Avoid keeping your hands, your lap, or any other part of your body in contact with a hot section of the computer for any extended time.

## **⚠Protect yourself from the heat generated by the ac power adapter⚠:**

When the ac power adapter is connected to an electrical outlet and your computer, it generates heat.

Do not place the ac power adapter in contact with any part of your body while it is in use.

## **⚠Protect the cables from being damaged⚠:**

Applying strong force to cables may damage or break them.

Route the power adapter and mouse so that they cannot be walked on, tripped over, pinched by your computer or other objects, or in any way subjected to treatment that could interfere with the operation of your computer.

## **⚠Protect your data and software⚠:**

Do not delete, change, or modify any of the files, hardware, or software on the computer; otherwise, your computer might fail to work.

## **How to open your computer:**

When carrying the computer home, the top and bottom lid of the computer will be closed. The latch on the computer will lock and not

open. To open the computer, find the security latch at the front of the computer shown in Figure 2.1.

**Figure 2.1**  
Latch to  
unlock  
computer.



Be sure to take these steps in the order in which they are given here:

**Figure 2.2**  
Security latch in  
locked  
position.



1. While your computer is closed find the security latch on the front of the computer located on the bottom-right lid. The security latch will be in the locked position as shown in Figure 2.2.



2. Unlock the security latch by sliding the latch to the right towards the unlock position shown in Figure 2.3.

**Figure 2.3**  
Security latch in  
unlocked  
position.



3. Now that the security latch is unlocked, open the top lid of the computer as shown in Figure 2.4.

**Figure 2.4**  
Computer open  
but powered  
off.





## **Plugging in your Mouse:**

In this study it is recommended that you keep your mouse connected to and plugged into the computer. The mouse will be used to click and navigate to various components in your training.

**Figure 3.1**  
Wired mouse  
for  
computer.



1. Find the mouse that was provided for the computer shown in figure 3.1.

Figure 3.2  
USB port for  
mouse.



Figure 3.3  
USB port for  
mouse.



2. Find the USB port at the right side and the front of the computer as shown in Figure 3.2 and 3.3.
3. Plug the mouse into the USB port of the computer as shown in Figure 3.4.

Figure 3.4  
Mouse plugged  
Into computer.



## **Turning your computer on:**

Your computer should now be placed on a table with the ac power adapter and mouse plugged into their proper ports. Make sure you have enough space to move the mouse around safely and that your cables are safely out of your way. Your computer can now be powered on.

Be sure to take these steps in the order in which they are given here:

1. With the computer open, find the power button at the center of the keyboard as shown in Figure 4.1.

**Figure 4.1**  
Location of  
power  
button.



2. Press and hold the power button shown in Figure 4.2 to turn on the computer.

**Figure 4.2**  
Location of  
power  
button.

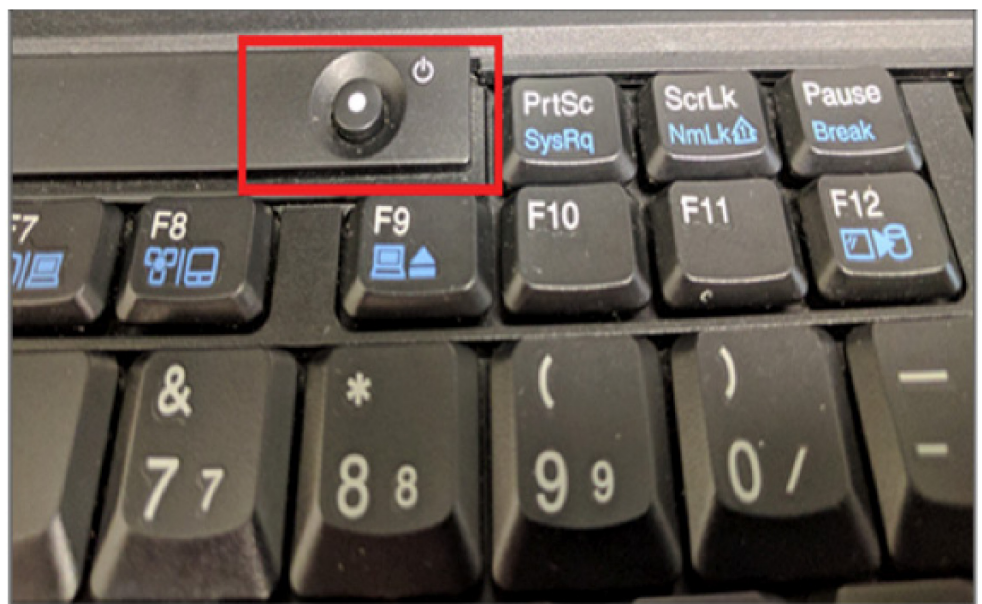


Figure 4.3  
Display screen  
powered on.



3. After pressing the power button, the computer will turn on and display the background screen shown in Figure 4.3.

## **Logging into your computer:**

Now that your computer is turned on you will need to login to the computer to access your training software. Your computer uses a password to help prevent your computer from being used by others. A prompt is displayed on the screen each time you need to login to your computer. Your computer should display the image shown in Figure 4.2.



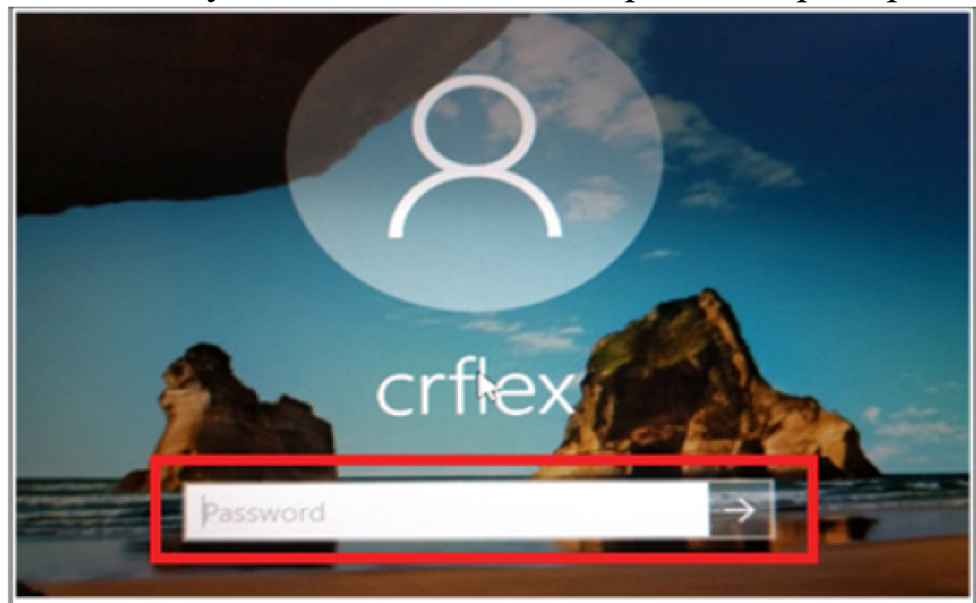
**Figure 5.1**  
Enter button  
on the  
keyboard.



Be sure to take these steps in the order in which they are given here:

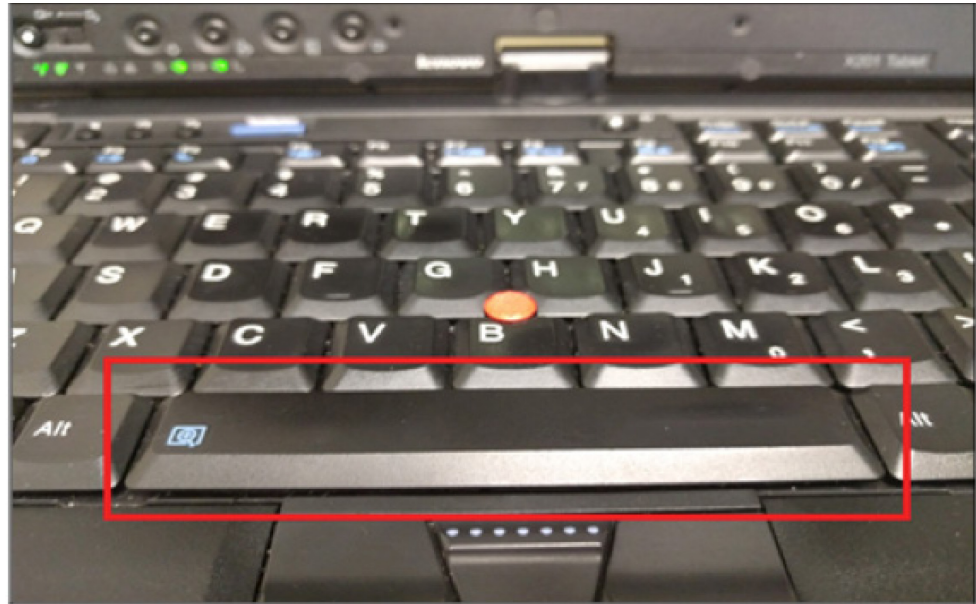
1. Press the Enter button as shown in Figure 5.1 or click on the computer screen with your mouse to show the password prompt.

**Figure 5.2**  
Location of  
password  
prompt.



2. Click on the password prompt. At the password prompt shown in Figure 5.2 you will enter your password. You cannot use the computer unless you type the correct password.

Figure 5.3  
Spacebar for  
password  
prompt.



Note: If the computer was shut down properly a password is not required to login.

3. In the password prompt, you will use the spacebar shown in Figure 5.3 to enter your password.
4. Press the spacebar 4 times and then press the enter key to enter the password.

## **Passwords and sleep mode:**

If your computer enters into sleep mode after either being idle for five minutes, or by closing the computer screen without turning off the compute, You can resume use of the computer by pressing the enter key or the spacebar. The screen will turn on and you will reenter your password. Please follow the instructions for “Logging into your computer”.

## **Connecting to the network:**

Your computer comes with a built-in wireless network card. There is a configuration utility to help you make wireless connections and monitor the status of your connection, so that you can stay connected to your network while you are at home, with no need for a wired connection.



**Figure 6.1**  
Location of Wireless  
network  
switch.



To connect to a wireless network you will need to have the wireless connection turned on. The location of the wireless switch is shown in Figure 6.1.

**Figure 6.2**  
Wireless  
network  
switch turned off.



1. To be able to connect to a wireless network you will need to make sure the wireless switch is on. Figure 6.2 shows the wireless switch in the off position.

**Figure 6.3**  
Wireless  
network  
switch turned on.



2. If the wireless switch is off, slide the switch to the right as shown in Figure 6.3 to turn on your wireless network.
3. Once you have the network switch turned on you will be able to log into a wireless network.
4. To log into a wireless network, make sure your computer is turned on, mouse is plugged in, and you have logged into the computer.
5. Move the mouse to the bottom-right hand corner of the screen and click on the wireless connection symbol.

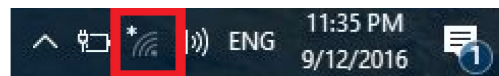
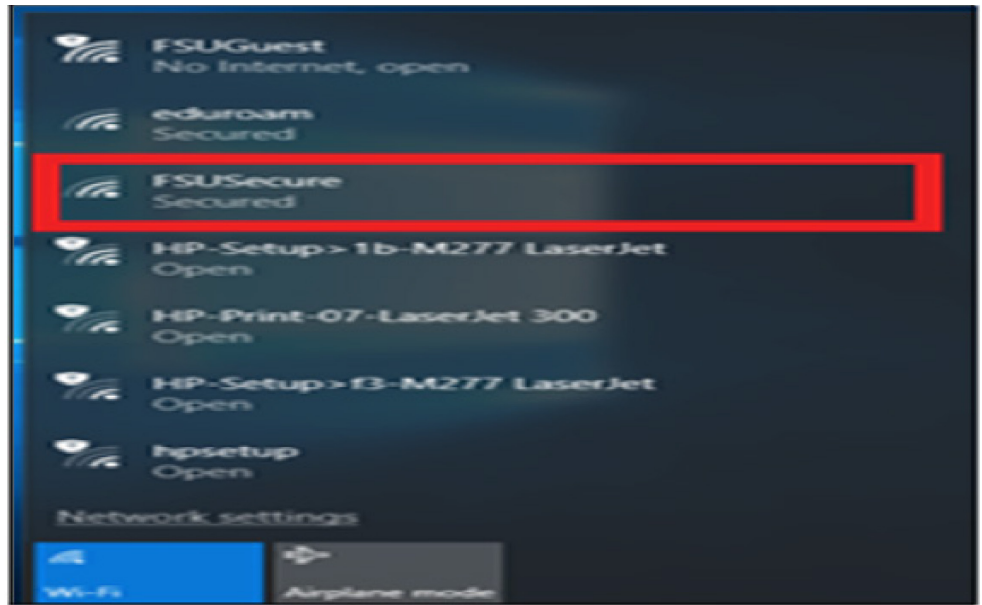
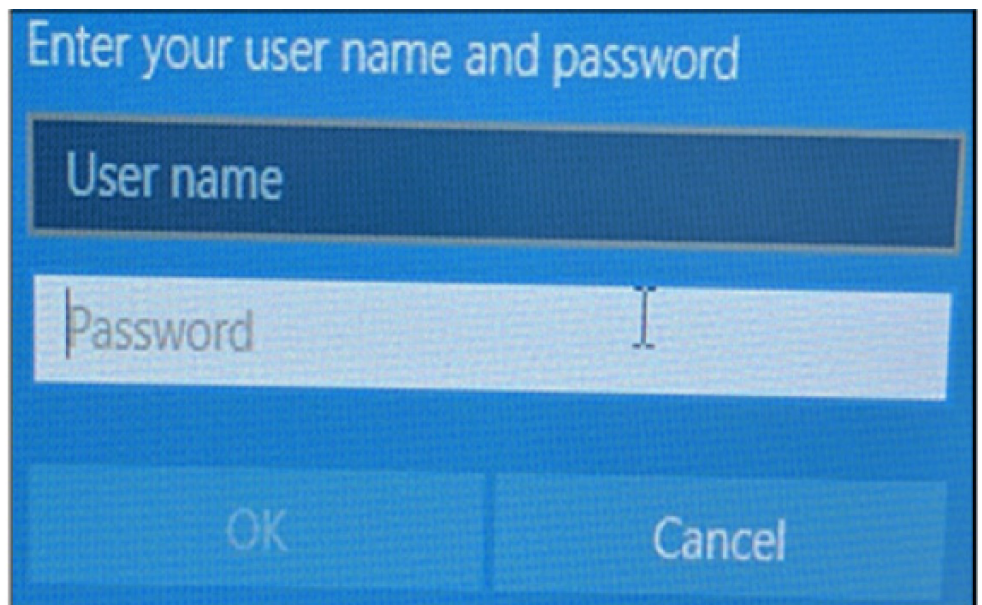


Figure 6.4  
List of local  
Wireless networks  
near the computer.



6. This will open a menu like the menu shown in Figure 6.4. This menu is the selection on local wireless networks around your computer.
7. Click on your home wireless network or the MIFI network provided for you.

Figure 6.5  
Enter Username  
and password  
Into the prompt.



8. Click on the Wireless connection or MIFI connection, and click the connect button.

9. After you click the connect button, enter the username in the username prompt, and the password in the password prompt as shown in Figure 6.5. Click the OK button.

Note: If you entered your username and password correctly your computer will now automatically connect to the wireless network.

## Turning your computer off:

There are two ways you can turn off the computer.

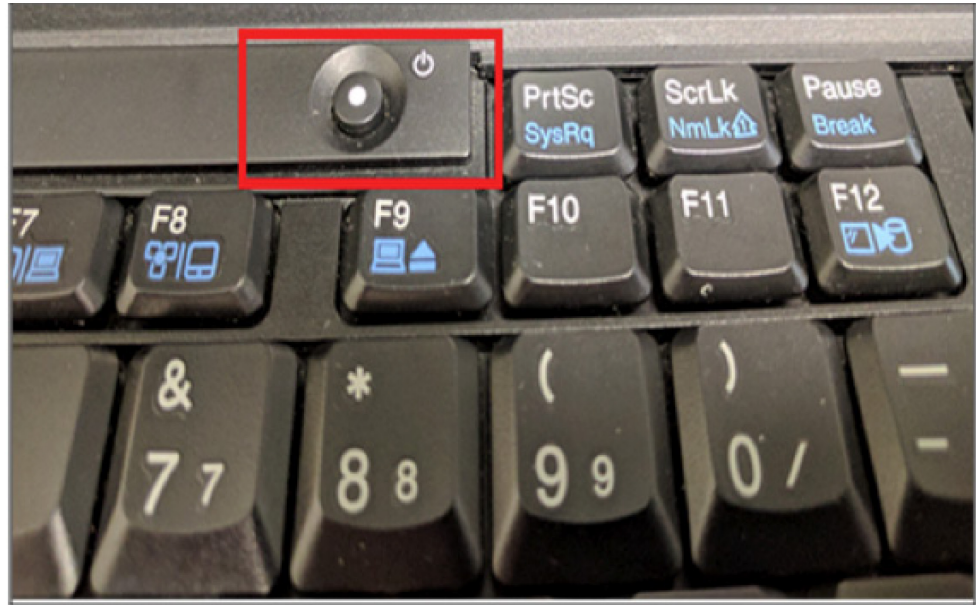


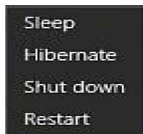
Figure 7.1  
Location of  
power  
button.

1. To turn off the computer you can press the power button shown in Figure 7.1. Press and hold the power button for a few seconds and the computer will turn off.

2. You can also access the start menu to turn off the computer.

A. Use the mouse to click the Start  button at the bottom left of your screen.

B. Click on the Power button.  Power

C. Move the mouse to the option labeled Shut down  and click Shut down.

D. The computer will automatically turn off once you click the Shutdown option.



## Adjusting the volume on your computer:


There are two ways you can adjust the volume of your computer.

Figure 8.1  
Location of  
volume  
buttons.

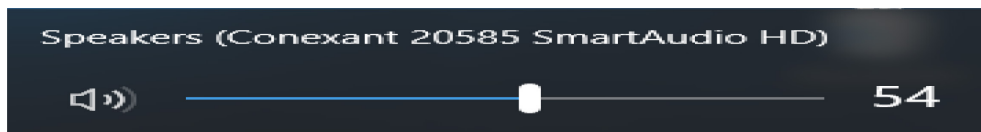


1. To adjust the volume of your computer you can press the mute, volume down, or volume up buttons shown in Figure 8.1. Press the left volume button to mute the sound of your computer. Press and hold the middle volume down button to turn down the volume. Press and hold the right volume up button to turn up the volume.

2. You can also access the volume menu on the computer.

A. Use the mouse to click the volume  button at the bottom right of your screen.

B. This will pull up a slider bar menu for the volume.



C. Click on the white bar and hold the left mouse button to drag the volume slider left or right.

D. Slide the bar to the left to turn the volume down. Slide the bar to the right to turn the volume up.

## **If you are using a MIFI Unit:**

**Figure 9.1**  
Ac power adapter  
for  
MIFI.

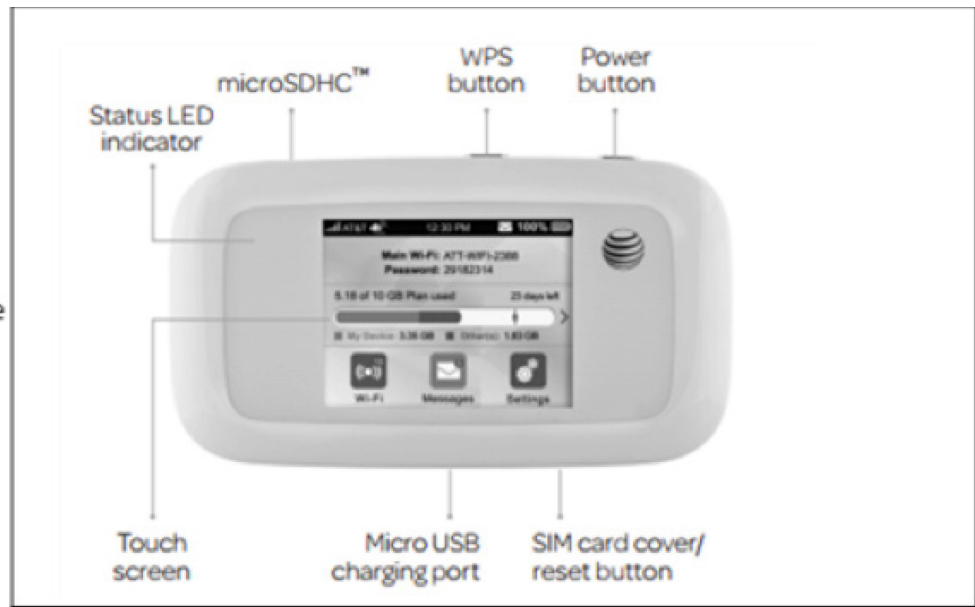


In this study, it is recommended that you keep your MIFI connected to the power adapter and plugged into an electrical outlet. While the power adapter is plugged into the MIFI, the MIFI will remain charged and ready for use at any time. Find an area where you can use your computer and mouse on a table, connect your power adapter, and have the cables out of the way. You will want the MIFI near your computer.

Be sure to take these steps in the order in which they are given here:

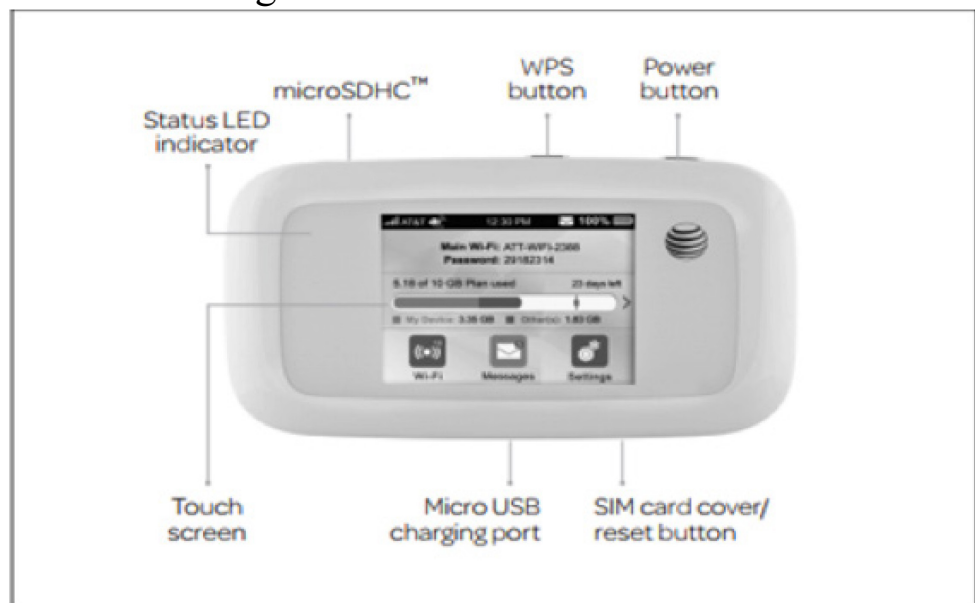


**Figure 9.2**  
Power jack  
on the bottom of the  
MIFI.



1. Find the ac power adapter that was provided for the MIFI shown in Figure 9.1.
2. Find the power jack on the computer located on the bottom of the MIFI unit as shown in Figure 9.2.

**Figure 9.4**  
Power button  
on the top-right of  
MIFI.



3. Connect the tipped connector of the ac power adapter into the power jack.
4. Plug the ac power adapter into an electrical outlet.
5. Find the power button shown in Figure 9.3 and press the power button.
6. Let go of the power button once the lights shown at the center of MIFI unit turn on.
7. Once the MIFI unit is turned on, place it near the computer.
8. Follow the Instructions for “Connecting to the network” to connect your computer to the MIFI.

## Brain-HQ



*Center for Research and Education on  
Aging and Technology Enhancement*



Return Date: \_\_\_\_\_ @ \_\_\_\_\_

- The objective of the study is for you to **play Brain HQ for 1 hour each day, 5 days a week.**
- The hour should consist of 2 training sessions lasting 30 minutes.
- 1 week into the study, someone from our research team will contact you by phone to make sure you aren't having difficulties.
- In roughly 1 month, you will return to the lab for post testing.

122570

### Brain HQ Schedule (Example 1- Weekend Breaks)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<b>Week 0</b>		Baseline Test 1 (complete)	Baseline Test 2 (complete)	Laptop Training (complete)	Day 1 Brain HQ (1 hour)	Day 2 Brain HQ (1 hour)	Rest
<b>Week 1</b>	Rest	Day 3 Brain HQ (1 hour)	Day 4 Brain HQ (1 hour)	Day 5 Brain HQ (1 hour)	Day 6 Brain HQ (1 hour)	Day 7 Brain HQ (1 hour)	Rest
<b>Week 2</b>	Rest	Day 8 Brain HQ (1 hour)	Day 9 Brain HQ (1 hour)	Day 10 Brain HQ (1 hour)	Day 11 Brain HQ (1 hour)	Day 12 Brain HQ (1 hour)	Rest
<b>Week 3</b>	Rest	Day 13 Brain HQ (1 hour)	Day 14 Brain HQ (1 hour)	Day 15 Brain HQ (1 hour)	Day 16 Brain HQ (1 hour)	Day 17 Brain HQ (1 hour)	Rest
<b>Week 4</b>	Rest	Day 18 Brain HQ (1 hour)	Day 19 Brain HQ (1 hour)	Day 20 Brain HQ (1 hour)	Post Test 1 (May Differ)	Post Test 2 (May Differ)	

**Note: You may take rest days on different days, as long as you play 5 days a week for 1 hour.**

### Brain HQ Schedule (Example 2- Random Breaks)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
<b>Week 0</b>		Baseline Test 1 (complete)	Baseline Test 2 (complete)	Laptop Training (complete)	Day 1 Brain HQ (1 hour)	Day 2 Brain HQ (1 hour)	Rest
<b>Week 1</b>	Day 3 Brain HQ (1 hour)	Day 4 Brain HQ (1 hour)	Day 5 Brain HQ (1 hour)	Rest	Day 6 Brain HQ (1 hour)	Day 7 Brain HQ (1 hour)	Day 8 Brain HQ (1 hour)
<b>Week 2</b>	Rest	Day 9 Brain HQ (1 hour)	Day 10 Brain HQ (1 hour)	Day 11 Brain HQ (1 hour)	Rest	Day 12 Brain HQ (1 hour)	Rest
<b>Week 3</b>	Day 13 Brain HQ (1 hour)	Day 14 Brain HQ (1 hour)	Rest	Rest	Day 15 Brain HQ (1 hour)	Day 16 Brain HQ (1 hour)	Day 17 Brain HQ (1 hour)
<b>Week 4</b>	Day 18 Brain HQ (1 hour)	Day 19 Brain HQ (1 hour)	Day 20 Brain HQ (1 hour)	Rest	Post Test 1 (May Differ)	Post Test 2 (May Differ)	

**Note: You may take rest days on different days, as long as you play 5 days a week for 1 hour.**

For technical support,  
please call the Boot/CREATE Lab.

**(850) 800-6339**

*(9-5 Mon-Fri)*

or email

**FSUCREATELAB@GMAIL.COM**

## PARTICIPANT HANDBOOK

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**March 02, 2017**

CREATE Research Project

Florida State University

Department of Psychology

1107 W. Call Street

Tallahassee, FL 32306-4301

(850) 800-6339

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## **About this Quick Guide**

The BrainHQ Quick Guide is intended to provide answers to questions about using the BrainHQ software package and about the training schedule we would like you to follow. Should questions arise that are not answered here, please call: (850)-800-6339.

## **What is the CREATE Study?**

The Center for Research and Education on Aging and Technology Enhancement (CREATE) is conducting a study on cognitive training. This study seeks to measure the possible benefits of brain training games and other types of training on older adults' performance on cognitive tests and everyday tasks such as driving and finance management. The BrainHQ software features a number of games meant to exercise different abilities. These abilities include visual processing speed, alertness and visual discrimination, and the ability to divide one's attention and ignore irrelevant distractors.

**Over the course of this study you will be asked complete 2 training sessions a day, for 5 days a week for a total of one month (4 weeks). Each training session should last 30 minutes, totaling 1 hour each day.**

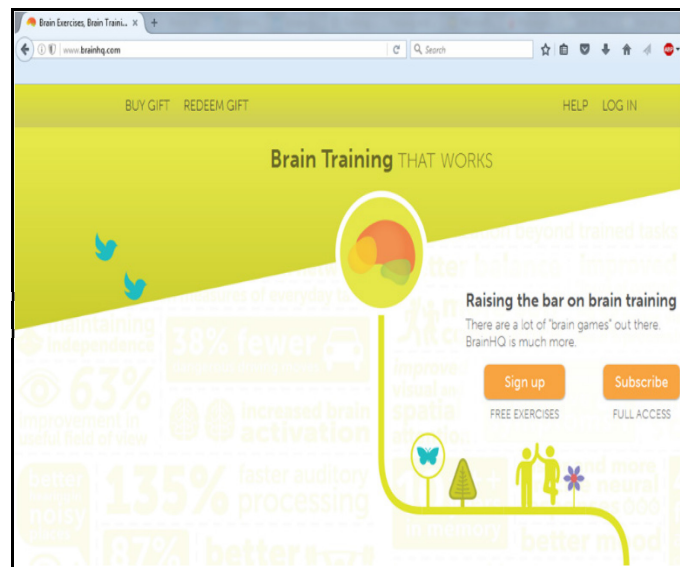
## **Logging on to BrainHQ**



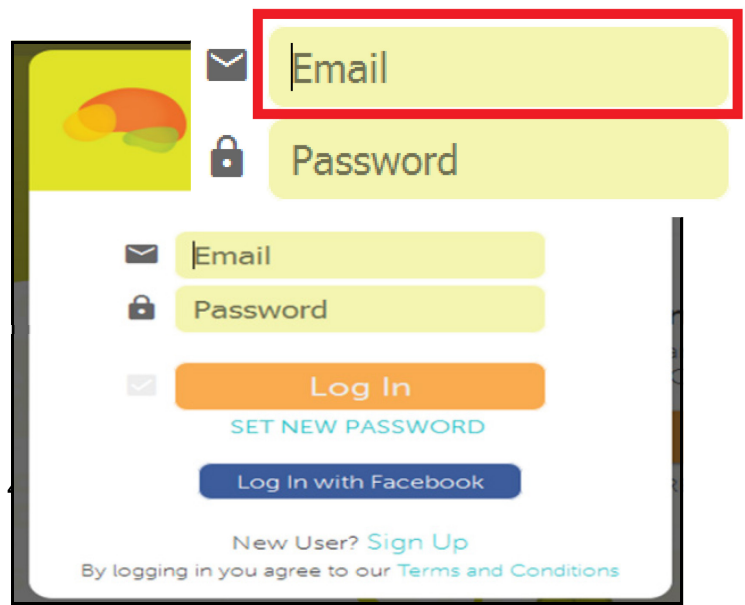
1. To load BrainHQ you will need to click on the TASK 1 icon once.

**TASK  
1**

2. TASK 1 will load the website and you will be able to access the BrainHQ website as shown in Figure 1.1.

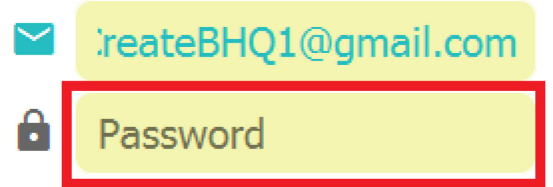


Click the Log In button at the top right of the website. It will open the login window shown in Figure 1.2.



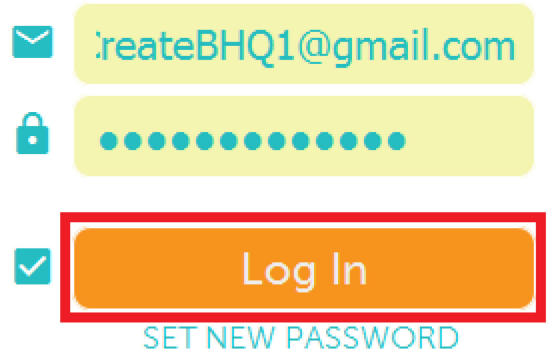
3. Enter the email provided for you into the box labeled email.

4. Enter the password provided for you into the box labeled password.



The image shows two input fields. The first field is labeled with an email icon and contains the text "createBHQ1@gmail.com". The second field is labeled with a lock icon and contains the text "Password". Both fields are highlighted with a red border.

5. Click on the Log In box after you have entered the email and password.

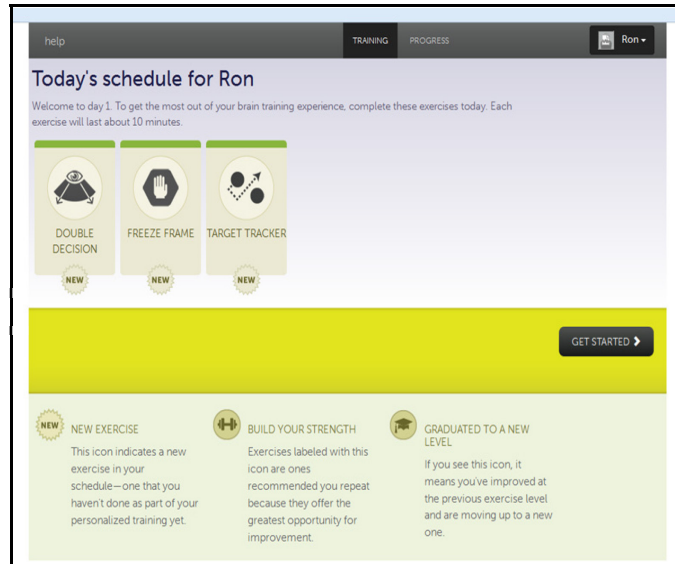


The image shows three input fields. The first field is labeled with an email icon and contains the text "createBHQ1@gmail.com". The second field is labeled with a lock icon and contains a series of dots. The third field is labeled with a checkmark icon and contains the text "Log In". The "Log In" field is highlighted with a red border. Below the "Log In" field is a link that says "SET NEW PASSWORD".

### **Completing a Training session**

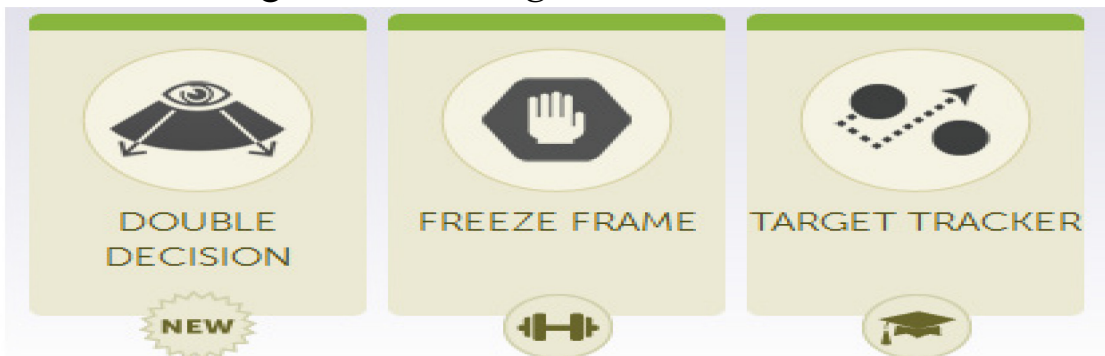
When you log into the BrainHQ website you will be shown a summary of your training session as seen in Figure 2.1. This will provide information on what tasks you need to complete during your training session and will also show you the order of tasks you will complete.

1. This is your training schedule for each training session. Complete 2 training sessions a day, 5 days a week, for a total of one month (4



weeks). Each training session should last 30 minutes, for a total of 1 hour each day.

2. Your first task in each training session is *Double Decision*. Your second task in each training session is *Freeze Frame*. Your final task in each training session is *Target Tracker*.



3. Please make sure you have thirty minutes available before starting a training session. Each task will take ten minutes to complete.

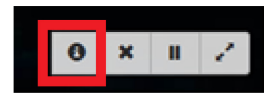
4. You may have to perform each task multiple times until the ten minutes are complete and you can move onto the next task.

5. To start a training session, click on the GET STARTED button.



6. After clicking the GET STARTED button you will be brought to the first task *Double Decision*.

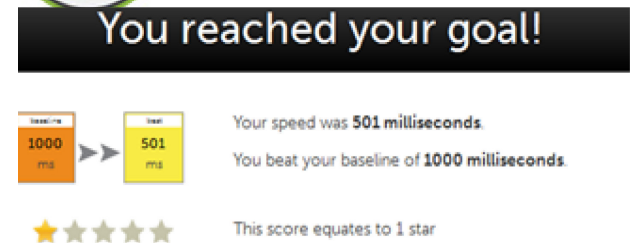
a. To refresh your knowledge of the task, you can click the i button at the bottom right of the screen to complete the tutorial again.



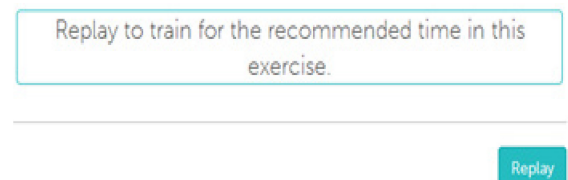
b. Click start to start the level.



c. Once the level is completed you will receive a message with your score and level status.

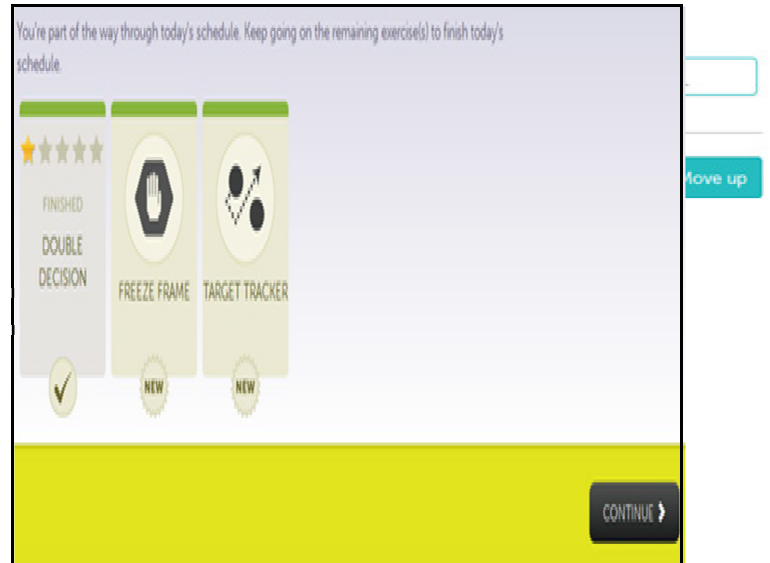


d. If, at the end of a level the message states “Replay to train for the recommended time in this exercise” click the Replay button and you will complete another level of the *Double Decision* task. You will repeat this task until 10 minutes have passed.



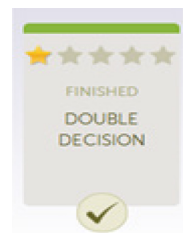
e. If at the end of a level the message states “Move up to keep to your 30-minute schedule” click the Move up button and you will be finished with the task *Double Decision* for this training session. The move up message will appear once you

have finished a level and completed the 10 minutes of your training task.

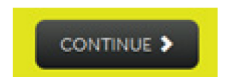


f. Clicking the Move up button will take you to an updated training summary page. Figure 2.2 shows an updated summary page with *Double Decision* now complete.


g. A check mark will appear underneath the task that was completed. Try to perform well and get a higher star ranking with every task.



h. Click the CONTINUE button to go to the second task, *Freeze Frame*.



7. After clicking the CONTINUE button you will be brought to the second task: *Freeze Frame*.

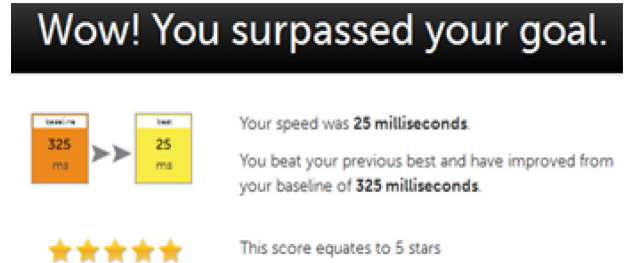
a. To refresh your knowledge of the task, you can click the  button at the bottom right of the screen to complete the tutorial again.



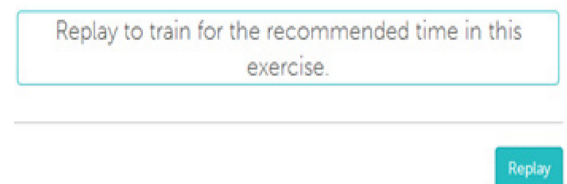
b. Click start to start the level.



- c. Once the level is completed you will receive a message with your score and level status.



- d. If at the end of a level the message states “Replay to train for the recommended time in this exercise” click the Replay button and you will complete another level of the *Freeze Frame* task. You will repeat this task until 10 minutes have passed.



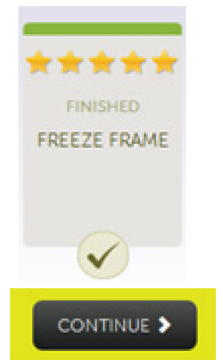
- e. If at the end of a level the message states “Move up to keep to your 30-minute schedule” click the Move up button and you will be finished with the task *Freeze Frame* for this training session. The move up message will appear once you have finished a level and completed the 10 minutes of your training task.



f. Clicking the Move up button will take you to an updated training summary page. Figure 2.3 shows an updated summary page with *Freeze Frame* now complete.

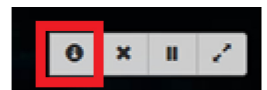
g. A check mark will appear underneath the task that was completed. Try to perform well and get a higher star ranking with every task.

h. Click the CONTINUE button to go to the final task, *Target Tracker*.



8. After clicking the CONTINUE button you will be brought to the final task *Target Tracker*.

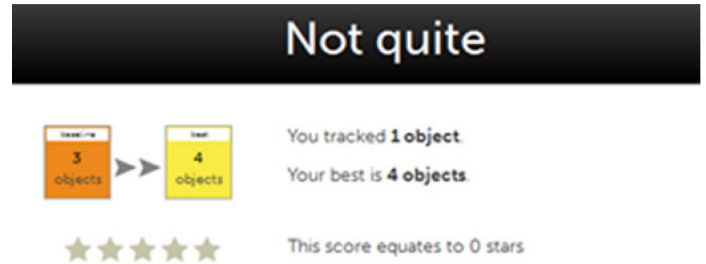
a. To refresh your knowledge of the task, you can click the **i** button at the bottom right of the screen to complete the tutorial again.



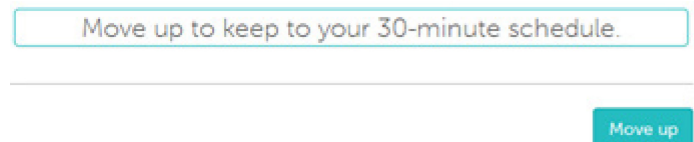
b. Click start to start the level.



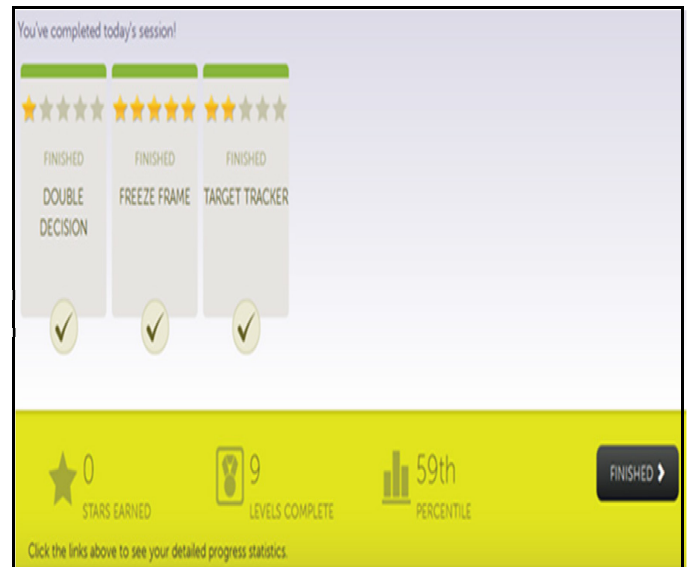
- c. Once the level is completed you will receive a message with your score and level status.



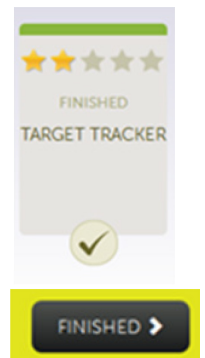
- d. If at the end of a level the message states “Replay to train for the recommended time in this exercise” click the Replay button and you will complete another level of the *Target Tracker* task. You will repeat this task until 10 minutes have passed.
- e. If at the end of a level the message states “Move up to keep to your 30-minute schedule” click the Move up button and you will be finished with the task *Target Tracker* for this training session. The move up message will appear once you have finished a level and completed the 10 minutes of your training task.







- f. Clicking the Move up button will take you to an updated training summary page. Figure 2.4 shows an updated summary page with *Target Tracker* now complete.
  - g. A check mark will appear underneath the task that was completed. Try to perform well and get a higher star ranking with every task.
  - h. Click the FINISHED button to complete a training session.
9. Now that you have completed all the tasks in one training session, please close TASK 1. Move your mouse to the top right of the screen and click the red x. This will close TASK 1 and open your training session Diary.



### **Diary after training session**

1. The diary allows you to record your thoughts and feelings on the previous training session. You will complete a diary after every training session. Do not close TASK 1 until the training session is complete. Shown below in Figure 3.1 is a screen of the diary.

The screenshot shows a web-based diary form with the following sections:

- Section 1:** "I found today's session to be enjoyable." with seven buttons: Strongly disagree, Disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Agree, and Strongly agree. The "Agree" button is highlighted.
- Section 2:** "I found today's session to be challenging." with the same seven buttons. The "Agree" button is highlighted.
- Section 3:** "I found today's session to be frustrating." with the same seven buttons. The "Agree" button is highlighted.
- Section 4:** "I was motivated to perform well on today's session." with the same seven buttons. The "Agree" button is highlighted.
- Section 5:** "During today's session, for how many minutes, did you stop to complete another task?" with a subtext: "For example, did you complete a household task, or answer a phone call? If you did not stop at any point, please enter 0 in the box below". A text box contains the number "10".
- Section 6:** "Do you have any comments about today's session?" with a text box containing the word "WORDS".
- Footer:** A green bar with the text "Save Diary & Exit".

2. Answer the questions on enjoyability, challenge, frustration, and motivation by clicking on the box with the appropriate answer.

3. For the question “ During today’s session, for how many minutes, did you stop to complete another task” please click on the white box beneath the question and enter a number. Enter 0 if you did not take a break during the task, and if you did take a break during the task or were interrupted from the task enter the number of minutes you were interrupted.

4. If you have any other comments use the white space beneath the question “ Do you have any comments about today’s session” to provide feedback on the training session. If you have no additional comments type NO in the comment box.

5. You do not have to complete both training sessions consecutively. You can split your training sessions into times that are comfortable for you. Please complete 2 training sessions per day and record your thoughts into your diary.

## **Second training session of the day**

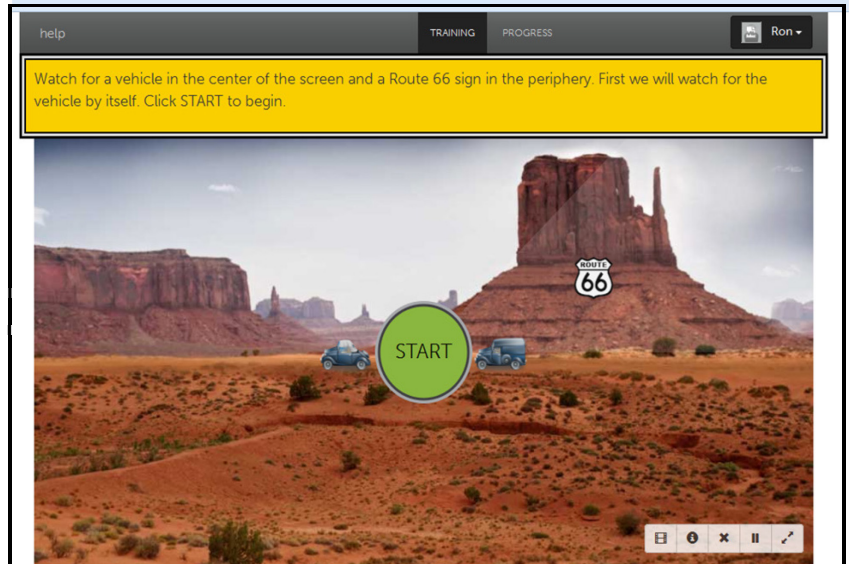
1. When you are ready to start your second training session click once on TASK 1 to pull up your training summary of the second training session. You will be shown a summary of your training session as seen in Figure 4.1.






2. Repeat the previous steps to complete your training session.

## Description of *Double Decision*

1. The first task in your training schedule is *Double Decision*. Figure 5.1 shows the start screen of your task.

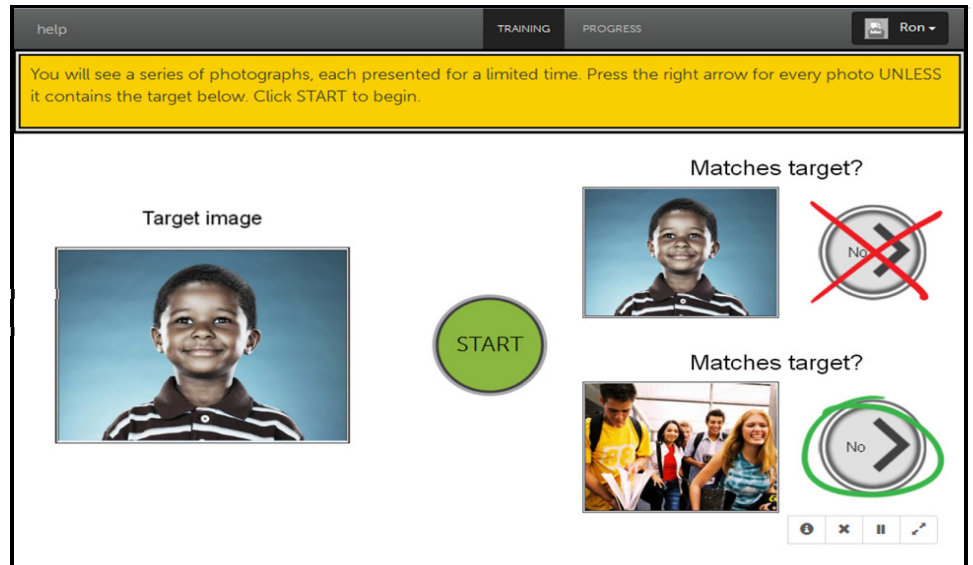


2. In the task *Double Decision*, you will be presented with a car at the center of the screen and a sign will appear in the periphery.
3. Afterwards, you will choose which car you saw at the center of the screen by clicking on the car.
4. You will then locate the section of the screen where the Route 66 sign appeared in your periphery and click on that section of the screen.
5. As you complete more exercises the task will increase in difficulty as more distractor signs are added. The Route 66 sign may appear farther in your periphery, the cars may get more similar, and the backgrounds may get more complex.

6. The *Double Decision* game exercises visual processing speed and your ability to extract visual information from the periphery.

## Description of Freeze Frame

1. The second task in your training schedule is *Freeze Frame*. Figure 6.1 shows the start screen of your task.




2. In the task *Freeze Frame*, you will be presented with a target image before you start the level.



3. Memorize this image and once you are ready click start.

4. You will be shown an image briefly.



5. If the image shown is not the target image, you will press the  arrow key on the keyboard.

6. If the image is the target image, “Freeze”, DO NOT press any key.



7. After a brief amount of time, or after a button press, you will be shown a new image.
8. As you complete more exercises the task will increase in difficulty as images get more similar, the types of pictures change, and the differences between target images and other images become subtler.
9. The *Freeze Frame* game exercises alertness and visual discrimination abilities.





### Description of *Target Tracker*

1. The third task in your training schedule is *Target Tracker*. Figure 6.1 shows the start screen of your task.



2. In the task *Target Tracker*, you will be presented bubbles to track as they move around the screen.



3. Other bubbles will appear to distract you, but only follow the movement of the first target bubbles you were shown.



4. Ignore the movement of the other bubbles.

5. After the bubbles stop moving you will click on the bubbles that were the initial targets that you were tracking.

7. *Target Tracker* practices your ability to divide your attention and ignore irrelevant distractors.

## PARTICIPANT SUPPORT LINE

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**If you require any assistance please call our help/support line between the hours of 9am – 5pm Monday through Friday at :**

**(850) 800-6339**

**Complete 2 training sessions a day, 5 days a week, for a total of one month (4 weeks). Each training session should last 30 minutes, for a total of 1 hour each day.**

Rise of Nations

IADL Training (Fraud + AARP)

Control training (Crosswords, Sudoku, Word Search)

# PROTOCOLS

## Pre-screening

## Computer setup

Laptop description, and description of data logging protocol

Laptop setup protocol

## Randomization Procedures

## Training on Tasks

Hardware Script

### Hardware Training

**SPEAKING:** Before we introduce you to the training program, we will first go through brief computer hardware training. Today we are going to begin training on how to use your laptop computer. You may have used computers before, but this training is designed to make sure that everyone is familiar with the specific equipment for this study.

**ASK:** Do you use a computer regularly?

- **If the answer is yes:** Great! While you may be familiar with using a computer we will give you a little extra information on the best way to set up your computer for this study, how to login to the computer and your training, the controls you will use during your training, and how to engage in training.
- **If the answer is no:** Don't worry! We will teach you everything you need to know. This includes the basics of using a computer, the best way to set up your computer for this study, how to login to the computer.

### **Charging the Computer**

**DEMONSTRATE:** In this study, it is recommended that you keep your computer plugged in.

*(Blue means participant tries actions while you instruct.)*

1. Now, connect the power adapter to the laptop. *(point out where)*
2. Next, plug the other end of the power cord into an electrical outlet. *(show where to plug in the wall outlet)*

While the power adapter is plugged into the computer, the computer will remain charged and ready for use. We recommend finding an area where you can keep your computer and mouse on a table, while having your power adaptor plugged in.

### **Using the Mouse**

**DEMONSTRATE:** In this study, it is recommended that you keep your mouse connected to and plugged into the computer to complete all the exercises.

1. Connect the mouse to the USB port of the computer. *(show where to plug in the USB cord.)*

During the study, the mouse should always be used to click and navigate components in your training software.

### **Powering On**

**DEMONSTRATE:** Now that we have the computer and mouse plugged in let's turn on the computer.

1. First, find the security latch and slide it to the right, then open the computer. *(show where)*

2. The power button is located just below the center of the screen. Press and hold the power button to turn your computer on.
3. When you turn on your computer you will not require a password to login. You will be taken directly to the desktop.

### **Sleep & Logging In**

**DEMONSTRATE:** If your computer is put into standby or “sleep mode” by being away from the computer for an extended period, you will need to type in a password. A password is requested each time the computer screen shuts off. I’m going to demonstrate this now.

1. *(Wait 1 minute to let the computer go to sleep.)*
2. Please tap the spacebar once to reveal the password textbox.
3. The password 4 spacebar presses.
4. Press the spacebar 4 times, then hit enter to unlock the laptop.

### **Volume Control**

**Demonstrate:** If you need to turn the volume of the computer up, down, or off, you can press the volume buttons on the keyboard. The volume buttons are located here. *(point out button.)*

1. Turn up to volume.
2. Turn down the volume.
3. Mute and unmute the volume.
4. *(When finished make sure the volume is on halfway.)*

### **Power Off**

**Demonstrate:** You may want to power off the computer after completing a daily training session, however you don’t have to. Lets talk about powering down.

1. One way, which we won’t try now, is to hold the power button down for a few seconds.
2. However, the easiest way to power down the laptop is to close the lid.

3. Please close the lid now to power off the laptop.
4. (wait a few seconds)
5. Now open the lid and power the laptop back on and finish up hardware training.
6. (move on while laptop is powering up)

### **Conclusion**

**ASK:** Do you have any questions?

**SPEAKING:** This gives you a basic explanation on how use your computer. If you need extra information on it will be provided in your take home manual. We will discuss more about the manual towards the end of your session.

## Brain-HQ

### **Brain HQ (BHQ) Training Protocol**

**SPEAKING:** The Center for Research and Education on Aging and Technology Enhancement (CREATE) is conducting a study on cognitive training. This study seeks to measure the possible benefits of brain training might have on older adults' performance on cognitive tests and everyday tasks. The BrainHQ software features many games meant to exercise different abilities. These abilities include visual processing speed, alertness and visual discrimination, and the ability to divide one's attention and ignore irrelevant distractors.

**Over the course of this study you will be asked to train 1 hour a day, 5 days a week for a total of one month.**

### **Wifi Setup**



**DEMONSTRATE:** In this study, you will need to be able to connect to a wireless network. We will show you how to connect to a wireless network here, and you will need to follow these same steps at home. If you already have a wireless network at home, that's great. If not, we will provide you with a device that will provide you with wireless network for the length of the study.

\*If participant does not have internet please refer to MiFi Device Instructions on page 4.

1. First click on the wireless network icon in the bottom right corner of the desktop. This will pull up a list of wireless networks. (*show where to click to pull up network list.*)
2. For your training session, we will use the network FSU\_SECURE to train you on how to login to a wireless network.
3. Click FSU\_SECURE from the list of wireless networks.
4. Click the connect button.
5. In the password prompt enter the password CREATE2017.
6. Click the OK button.
7. The computer will now connect to the wireless network.
8. This is how you will connect to your wireless network at home or to your Mifi device.
9. An alternative option to plug an ethernet cable into your computer and the wireless router in your house. This allows you to connect to your WIFI through a wired connection and maybe more stable than using the WIFI connection.
10. Now, plug the Ethernet cord into the laptop. The other end goes into the wifi router in your home. (*Help participant*)
11. All of this information is available in the "HOW-TO-Connect" video on your desktop. Let's play a little bit of that video now.
12. (*Play first minute of HOW-TO-Connect video on participant computer if participant is unsure of ability to connect*)

13. For this training session, we will need to connect to the wireless network of Florida State University.

**BEFORE CONTINUING CLICK ON THE FSU SECURE NETWORK, enter your credentials to login to the FSU network and continue.**

**MiFi Device Instructions:** Go grab a Mifi device from Thomas.

1. First click on the wireless network icon in the bottom right corner of the desktop. This will pull up a list of wireless networks. *(show where to click to pull up network list.)*
2. We will use the network CREATE\_#X to train you on how to login to the Mifi device.
3. Click CREATE\_#X from the list of wireless networks.
4. Click the connect button.
5. In the password prompt enter the password CREATE2017.
6. Click the OK button.

### **Introduction to Brain HQ**

**SPEAKING:** Now I am going to give you a demonstration of how to access the Brain HQ software and the features of the software. Please feel free to ask any questions at any time during the demonstration. Please also let me know any time you would like to take a break.

### **Open Task 1**

**DEMONSTRATE:** Now let's access the task, Brain HQ, and start learning it. First, you will need to:

1. Click once (do not double click) on the "Task 1" icon at the top left of your desktop.

2. This will bring you to the Brain HQ training homepage.
3. You should have your window in full screen while you complete the course.
4. Click on the maximize button at the top right corner of the browser.

### **Logging In**

**SPEAKING:** You have been preassigned a login and password for this course. Your login information allows you to access and complete the course, and monitor how much of the training you have completed. Let's login to the course now and get started. *(Pause between instructions and wait for participant to attempt each step on their own. Only help if participant needs it.)*

1. First click on the log in button at the top right of the Brain HQ website.
2. This is the login window. Here you will enter the email address and password that we setup when we purchased the Brain HQ account for you.
3. The email address and password is located on the laptop, right here.
4. Now enter that email and password into the website to login.
5. Then click the "Log In" button.

### **Today's Schedule Page**

**GUIDE PARTICIPANT:** This is your training summary for this training session. You will be asked to complete three tasks in each training session: *Double Decision*, *Freeze Frame*, and *Target Tracker*. Each task lasts about 10 minutes. We will show you how to complete each training task and how to complete your training sessions. Over the course of this study you will be asked complete 2 training sessions a day, this totals 1 hour of work. You will do these 2 sessions 5 days a week for all 4 weeks.

### **Get Started**

**GUIDE PARTICIPANT:** Let's start the training now and go over it together.

1. To start your training you always just click "GET STARTED", but don't click it yet.
2. When you hit this button, it will bring you into the first exercise, DOUBLE DECISION.
3. After completing DOUBLE DECISION, you will then automatically go into FREEZE FRAME and then after that TARGET TRACKER.
4. So again, to train with all 3 exercises you just click "GET STARTED"
5. Click the GET STARTED button to start the first task of the training session.

### **Explaining Double Decision**

Now let's start by explaining the rules of the first exercise. This exercise is called *Double Decision*. Let's go through the instructions now before starting the tutorial.

1. First, you will be shown a vehicle at the center of the screen. (*Point to center*)
2. At the same time, you will also be shown a Route 66 sign, around the outside of the screen. (*Point to outside area*)
3. These will just be shown for a split second, and then they disappear.
4. Afterwards you asked two things:
  - a. Which type of vehicle appeared at the center of the screen. (a car or truck)
  - b. And also the location of the Route 66 sign on the screen.

**ASK:** Do you have any questions before we start?

### **Start Tutorial for Double Decision**

**GUIDE PARTICIPANT:** Now let's start the tutorial together for this first exercise.

1. Click START when you are ready.
2. (*Let the participant complete the tutorial and help wherever the participant gets confused.*)

### **Complete First Level**

**AFTER TUTORIAL:** Congratulations on completing the tutorial, when you click the start button again, the first level of the training task will begin.

1. Click the start button to begin the exercise.
2. *(Let the participant try the task and help if the participant gets confused.)*
3. If you ever need to refresh your knowledge of the exercise you can click the “I” button *(point to “I” button)* at the bottom right of the screen to complete the tutorial again or refer to the information in your take home manual.
4. *(If the participant really struggled, have them press “I” button to retry tutorial.)*
5. If you do get either the car or the sign wrong, the correct car and sign placement will be flashed on the screen for you to see. Then the new round will start immediately, so make sure you are watching so you’re able to catch the new car and new sign placement you’re supposed to memorize.

### **Baseline Score & Next Level**

*(Once the first level completes it will show participants the baseline score.)*

**AFTER COMPLETING FIRST LEVEL:** After completing the level your baseline score is shown. It’s based on your performance and will help to determine the speed of the next level. Note the following:

1. Your speed in milliseconds shows how quickly you could take in and accurately respond to what you saw.
2. Your star rating representing your performance, try to improve over time.
3. The button at the bottom right will let you know if you need to continue training on the same exercise or start the next exercise.
  - a. **“Move Up”** means you can move on to the next exercise.
  - b. **“Replay”** means you will have to train on the same exercise again. You may have to complete the exercise multiple times until the 10 minutes of training for the exercise is complete.

4. Click “Replay” to complete your 10 minutes of training for the exercise.
5. *(have the participant play until see move up button.)*

### **Move Up & Training Summary**

**SPEAKING:** Congratulations, you are now ready to move on to the next exercise! Let’s do it now.

1. Click the “move up” button to see your training summary page.
2. You should now see your star level scoring performance on top of the DOUBLE DECISION exercise.
3. And a check mark below the exercise. *(Interventionist should have the participant click on move up button to move onto the next task or replay button repeat the same task.)*

### **Introducing Freeze Frame**

**SPEAKING:** The second exercise is called Freeze Frame. First we will complete a tutorial before starting the actual exercise. Remember if you are ever having trouble you can always get to the tutorial by clicking the “i” button at the bottom right of the screen. You can also refer to your take home manual.

1. Click “Continue” to begin the Tutorial.
2. The second task in your training schedule is *Freeze Frame*.
3. Before you start the exercise, you will be shown an image you must memorize.
4. This is called your target image. Memorize this target image.
5. When you start the task, images will be shown sequentially on the screen.
6. If the image on the screen is not the target image you will press the right arrow key.
7. If the image shown on the screen is the target image you must “Freeze” and **DO NOT** push anything.

**ASK:** Do you have any questions?

### **Start Tutorial for Freeze Frame**

**GUIDE PARTICIPANT:** Now let start the tutorial together for this first exercise.

1. Click **START** when you are ready.
2. *(Let the participant complete the tutorial and help wherever the participant gets confused.)*

### **After Completion, Continue Playing**

**GUIDE PARTICIPANT:** Congratulations on completing the tutorial, once you will [click the start button](#), the first level of the training task will begin. Remember you may have to complete this task multiple times until the 10 minutes are completed.

### **The Baseline Score**

*(Once the first level completes it will show participants the baseline score.)*

**SPEAKING:** This is your baseline score based on your performance and will help to determine the speed of the next level. Remember you may have to complete this task multiple times until the 10 minutes of training in the task is complete.

**SPEAKING:** At the end of a level, you will receive a message saying replay or move up. This message will let you know if you will need to continue training on the same task or if you will be starting the next training task.

If the message box says “replay to train for the recommended time in this exercise” then clicking on the replay button means you will train on this task again.

**SPEAKING:** After training on your current task for about 10 minutes, you will receive a new message at the end of the level. At the end of the level if the message says, **Move Up** to keep to your 30-minute schedule, that means you have completed your current training task and can move up to your next task. Congratulations! Once you click on the move up button, you will be shown your training summary page, and should now have check mark and star levels scoring your performance next to the task you just completed. Try to perform well on each training session to increase your star score. *(Interventionist should have the participant click on move up button to move onto the next task or replay button repeat the same task.)*

### **Training in Target Tracker**

**SPEAKING:** The first time you start your training it will give you a tutorial on how to complete the task. If you need to refresh your knowledge of the task, you can click the “i” button at the bottom right of the screen to complete the tutorial again or refer to your take home manual.

**GUIDE PARTICIPANT:** [Click start to begin the Tutorial](#)

**SPEAKING:** The third task in your training schedule is *Target Tracker*. In the task *Target Tracker*, you will be shown a set of targets that you must follow as they move around the screen. Other similar objects will appear to distract you, but only follow the movement of the targets you were first shown while ignoring the new objects. After the objects stop moving you will click on the initial target objects you were tracking.

**ASK:** Do you have any questions?

**GUIDE PARTICIPANT:** Congratulations on completing the tutorial, once you will [click the start button](#), the first level of the training task will begin. Remember you may have to complete this task multiple times until the 10 minutes are completed.

### **The Baseline score**



*(Once the first level completes it will show participants the baseline score.)*

**SPEAKING:** This is your baseline score based on your performance and will help to determine the speed of the next level. Remember you may have to complete this task multiple times until the 10 minutes of training in the task is complete.

**SPEAKING:** At the end of a level, you will receive a message saying replay or Move up. This message will let you know if you will need to continue training on the same task or if you will be starting the next training task.

If the message box says, replay to train for the recommended time in this exercise, clicking on the replay button means you will train on this task again.

**SPEAKING:** After training on your current task for about 10 minutes, you will receive a new message at the end of the level. At the end of the level if the message says, **Move Up** to keep to your 30-minute schedule, that means you have completed your current training task and can move up to your next task. Congratulations! Once you click on the move up button, you will be shown your training summary page, and should now have check mark and star levels scoring your performance next to the task you just completed. Try to perform well on each training session to increase your star score.

### **End of the First Session**

### **The Home Page**

**DEMONSTRATE:** Now that you have completed all three tasks you should [click the finished button](#). Once you have clicked finished it will load the training summary again. Once the training summary is loaded [move your mouse to the top right corner and click on the Red X on the top right of the screen](#). This will close the Brain HQ page and pull up your diary.

### **Filling out Diary**

**DEMONSTRATE:** The diary allows you to record your thoughts and feelings after each training session. With this diary, you will answer the following questions.

1. How **enjoyable**, **challenging**, **frustrating** you found the training that day.
2. And how **motivated** you were in the training that day.
3. Go ahead and answer those questions now for the introduction training you just completed.
4. The next question asks “During today’s session, for how many minutes, did you stop to complete another task”. If you were interrupted or had to take a break from task, you would enter the number of minutes you stopped the task
5. .If you were not interrupted during your training session please click on the white box beneath the question and enter 0.
6. Enter the of number minutes you stopped to complete task. (*Help participant decide number*)
7. If you have any other comments on the task please write it in the comments section or enter “none”
8. Enter your comments now.
9. Once you have finished filling out your diary click the Save diary and Exit button.

**SPEAKING:** You will complete a diary after each training session. You complete 2 training sessions a day, which should last 1 hour. You will do this for 5 days a week, for 4 weeks. Remember to only click on the Task 1 icon **once**, if you double click the icon it will pull up 2 BHQ windows and 2 diary pages.

### **Start of the Second Session**

**SPEAKING:** This time you will try to complete the second training session based on what you just learned. I will be here to answer any questions you may have and help guide you through your training. *(help participants and try to follow what the participants are doing. If they look confused, give them help and remind them of any information they will need. You can remind them of the previous information but try to let them complete these task off their own knowledge. If you have any questions refer to the sections starting with accessing the homepage. Participants will do the exact same thing they did in the first session. This second session they will not receive any tutorials, so if they have any questions have them click on the tutorial button.)*

### **End of the Second Session**

**ASK:** Do you have any questions? Or anything that needs clarification before we end our training?

## Rise of Nations

### **Rise of Nations (RON)**

#### **Training Protocol**

**SPEAKING:** The Center for Research and Education on Aging and Technology Enhancement (CREATE) is conducting a study on cognitive training. This study seeks to measure the possible benefits of Video games and other types of training on older adults' performance on cognitive tests and everyday tasks such as driving and finance management. The Rise of Nations software features real-time strategic gameplay meant to exercise different abilities.

These abilities include visual processing speed, alertness and visual discrimination, and the ability to divide one's attention and ignore irrelevant distractors.

**Over the course of this study you will be asked complete roughly an hour of training a day, 5 days a week for one month. Each training session should last 30 minutes, for a total of 1 hour each day.** Each session will be completed on this computer and using this mouse. You will take the computer home to complete training and you will be provided with help and instructional materials to refer to when you are at home.

### **Accessing Main Menu**

**SPEAKING:** To access your training suite and complete your tasks you will need to click on the TASK 1. Please make sure you only click once. *(have participants click on the create task 1 icon once, no double clicking)*

**SPEAKING:** This will bring you to your Rise of Nations software. The game should automatically load at full screen.

1. You can skip the cinematics shown before each game by clicking the left mouse button, please do that now.

Once at the Main Menu, you can create new games and load old saved games.

### **Start a New Game**

**SHOW PARTICIPANT:** To start your training we will first learn how to create a new game.

Every time you complete a game, you will have to create a new one. *(point out each of the buttons for the participants while explaining the features)*

1. Click the Solo game button to start a new game for this training session.
2. Click Quick Battle.
3. We will be playing this game on the easiest setting.

4. Click on the blue arrow below difficulty, then click “Easiest.” Confirm difficulty is at easiest.
5. The difficulty is the only setting you will need to change during your month of at home training.
6. Now click “Start” to start a new game.

*(after starting a new game starts, the tip menu will pop up, do not click anything until after the next few sections and explain how to pause the game)*

**SPEAKING:** This is how you start a new game in Rise of Nations. You will need to start a new game every time you complete a game in either a victory or defeat.

### **Start Playing Rise of Nations**

*(you will need to pause multiple times while explaining game mechanics and new functions to participants; such as explaining the drag box, have the game paused until they can complete the task themselves, then let them un-pause the game)*

**GUIDE PARTICIPANT:** Rise of Nations may seem intimidating at first but with practice the game will get easier and become a fun experience. The point of the game is to grow your small town into a thriving nation. Your opponent, the computer, will also build their nation. You must defeat the computer opponent by building faster. There are many ways to win, like a military or diplomacy victory, we will discuss this more later.

First I will teach you how to pause the game, which will come in handy while you play.

- First close the Tips popup, then click the pause button in the lower left hand corner.

Pausing stops the game from continuing in case you need to leave the computer for a few minutes. It also allows you to plan, strategize, and start to build while your opponent remains paused.

While we have the game paused, let me explain a few of the different items that are on your screen. *(show them each section and part as you explain it)*

1. In the top left corner, you will see your resources. This will show you what resources you currently have and the rate at which you are collecting them.
2. In the top center screen, it will show you at what stage your civilization is at and the advancement of their research paths.
3. In the top right, you will be shown population and number of cities you currently have.
4. In the middle bottom of the screen you will have a minimap of the entire game area, it is darkened right now because of the unexplored areas of the map.
5. A minimap is a small version of the whole map, and you can click on various parts of the minimap to adjust the area you are viewing currently.
6. At the bottom left you will have varied information and actions that can be taken by units or buildings after you have them selected.

### **Scout & Exploring Maps**

**GUIDE PARTICIPANT:** When you start a new game, you will not be able to see areas of the map where your units have yet to explore. By exploring an area, you can see if there are rare resources, lakes, rivers, or potential enemies. The best unit for exploring the map is the scout, you have one here *(point)*. Scouts are fast, but unarmed units used to explore the map and search for enemy locations.

*(show them how to click on the scout while paused and then click the auto explore button)*

1. Send your scout to explore the map now.

## **Citizens Intro**

**GUIDE PARTICIPANT:** Citizens in the game are used for many tasks like resource gathering. They can also construct buildings. You can create citizens by clicking on the building named after your city, and then clicking on the citizen. *(show them how to click on the city while paused and then where the citizen button is)*

Citizens can work at farms, mines, woodcutter's camps, and other resources that unlock over time. The more Citizens you have working on constructing a building or collecting resources, the faster they will build the building or harvest the resource. Two of the first resources required when starting the game are lumber and food, collected from Woodcutter's camps and Farms.

## **Woodcutter's Camps**

**GUIDE PARTICIPANT:** Woodcutter's Camps are built near trees to gather timber. Hovering your mouse over the woodcutter's camp allows you to see how many citizens you need for maximum timber production. Build more citizens for your woodcutter's camp.

1. Hover over wood cutter's camp to see how many citizens you need.
2. Click your city.
3. Click on the citizen button enough times to fill camp.

The more citizens working at a camp, the faster you collect Timber. Place new citizens in woodcutter's camp to maximize timber production.

Sometimes if left alone your citizens may automatically start working at the nearest woodcutter's camp or resource gathering site until the number of citizens per resource is full.

1. *(If citizens didn't auto move)* Select all three of your new citizens by holding down the left click and dragging a box over all three citizens.

2. (If citizens didn't auto move) Right click on woodcutter's camp to send citizens to work there.

You will notice how your lumber production increases by +10 each time a new worker joins the camp. *(interventionist point at the resource screen on the top left corner)*

### **Farms**

**GUIDE PARTICIPANT:** Farms are built to gather the food resource. Each city can only have 5 farms. Make sure there is one citizen working at each farm. Build two more citizens to construct two more farms to maximize your food output for this city.

1. Click your city.
2. Click on the citizen button twice.
3. Click on the idle citizen button or click one of the new citizens you just made.
4. Click on buildings icon.
5. Click on the farm button.
6. Drag your mouse to an area where you want to place your farm.
7. The square will turn green when it is in a viable location.

Notice how your food production increases each time you build a farm.

- Build another farm *(help them repeating previous steps)*

### **Extra Citizens for Building**

**GUIDE PARTICIPANT:** Try to have extra citizens for fast expanse of cities and to build new buildings. Build two more citizens just for creating buildings

1. Click your city.
2. Click on the citizen button twice.



## Research

**GUIDE PARTICIPANT:** Researching different technologies allows for different perks and advancements in your civilization. We will now research written word to unlock the temple building. Temples expand the influence your city has and expands the national border, expanding territory helps you advance towards a territory victory. A territory victory is where your borders and city take up 70% of the map. Temples allow you to research technologies to increase your wealth and territory. It also increases the health and attack range of your city.

Build a temple. *(i have participants research written word and build a temple)*

1. Click on library
2. Click on the yellow science level 1 (written word).
3. Click on the idle citizen button to select a citizen not working on another task.
4. Click the buildings button.
5. Click temple button.
6. Place on a green area.

## Taxation & Wealth

**GUIDE PARTICIPANT:** Taxation allows you to tax your territory based on the amount of territory you control for more wealth. Research civic to unlock taxation for research in the temple.

1. Click your Library.
2. Click Civic Level 1 (City State) button.

In the temple, research taxation to produce more wealth. In the game, there are buildings besides the Library where you can research areas related to that building.

1. Click on your Temple.
2. Click the Research Taxation button.

Notice how your wealth increases. The more cities you have, the more taxes will increase your wealth.

### **Research Commerce**

**GUIDE PARTICIPANT:** Increased research in commerce can increase your commerce limit, expand caravan limits and allows access to new buildings. Research Commerce to unlock the market building.

1. Click Library
2. Click commerce level 1

### **Build Market**

**GUIDE PARTICIPANT:** Markets are used to create Caravans who collect Wealth by connecting trade routes with new cities you create. Markets also create Merchants who can control rare resources. Let's build a market to further increase wealth. *(have participants create a market and then send merchants to the rare resource)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click buildings
3. Click market
4. Place on a green area

### **Create Merchant**

**GUIDE PARTICIPANT:** Now create a merchant and have him set up at a resource rare resource, it may show up as a white dot on the mini map.

1. Click on market
2. Click merchant
3. Right click on a resource on map to send merchant there.
4. Notice how your wealth increases after the merchant sets up shop.
5. Look for other resources on the map, if you find one repeat steps #1-3.

### **Population Limit- Research Military**

**GUIDE PARTICIPANT:** As you progress further in the game you may start reaching a population limit, where our city can no longer create units. By researching Military, it increases your population, reduces the cost of units, and allows access to new buildings. Research Military Level 1 (Art of War) to unlock the barracks building. *(interventionist have participants research art of war and explain perks)*

1. Locate the population limit at top right.
2. Click on the library.
3. Click on research military level 1 (Art of War).

The green bar will show the progress of the research. When completed, military level 1 will turn red. Notice how your population limit doubled from 25 to 50.

### **Build an Army**

**GUIDE PARTICIPANT:** Now we can start creating an army. An army allows you to attack other cities, defend your cities from attack and is used towards the military victory. Let's build a Barracks to Build foot soldiers to attack the enemy. *(interventionist have participants create a barracks and explain the soldiers)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click the Military Buildings button.
3. Click the Barracks button.
4. Drag your mouse to where you want to build. The square must be green to build.

**GUIDE PARTICIPANT:** You will want multiple types of troops in your army. In this game, some units are stronger against certain types of units. Different units also deal various kinds of damage. You will want to test various kinds of units to make an effective army. Slingers are cheap and fast short ranged military units, light infantry with a high attack. Hoplites are strong melee units which are quite powerful against cavalry units. Foot Archers are medium ranged foot infantry unit. Build each of the 3 military units. *(interventionist have participants create each of the three foot units)*

1. Click your new barracks.
2. Click on the three military units shown to create one of each.

### **Extra Scout**

**GUIDE PARTICIPANT:** In your barracks, you can also build more scouts to explore your map. This can help you explore the map faster, or replace a scout that was killed by your opponent. *(interventionist have participants create a new scout)*

1. Click your new barracks if not selected already.
2. Click on the scout button.
3. Once created, click your new scout.
4. Click the auto-explore button.

### **Advance to New Age**

**GUIDE PARTICIPANT:** Advancing to a new age gives you various upgrades. Classical Age gives different resources, technologies, buildings, and units. Research the Classical Age to advance your civilization and unlock new buildings and units. *(interventionist have participants research classical age)*

1. Click Library
2. Click Classical Age

## Mines

**GUIDE PARTICIPANT:** Mines are built near mountains and cliffs to gather the new resource metal. Make a mine to produce metal. *(interventionist have participants create a mine and explain that as they advance through ages new units will require different resources)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click buildings
3. Click mine
4. Place on a green area at the side of a mountain near your city.

**GUIDE PARTICIPANT:** The more citizens working at a Mine, the faster you collect Metal. Create enough citizens to fill the spots in your mine. *(interventionist have participants create 5 workers to fill the mine)*

1. Hover over mine to determine how many citizens you need.
2. Click your city.
3. Click on the citizen multiple times to create the number of citizens you need.

Your citizens should automatically go find work, but if they don't:

1. *(If citizens didn't auto move)* Select all three of your new citizens by holding down the left click and dragging a box over all three citizens.
2. *(If citizens didn't auto move)* Right click near the mine to send citizens to work there.

## University

**GUIDE PARTICIPANT:** The University allows the creation of scholars who gather the new resource, Knowledge. Build a university to increase knowledge for future research. *(interventionist have participants create university, explain that knowledge is a that can only be collected in the university)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click buildings
3. Click university
4. Place on a green area

### **Scholars in University**

**GUIDE PARTICIPANT:** Notice how your knowledge production increases each after you build the university. The more scholars studying here, the faster you collect Knowledge. Let's create 4 scholars in your university.

1. Click on university
2. Click scholar 4 times
3. Notice how your knowledge production increases each time creating a scholar is completed.

### **The Senate**

**GUIDE PARTICIPANT:** The Senate allows you to research various governmental policies. These policies can give different bonuses to various aspects of the game. Build a Senate building in your capital. (*interventionist have participants a senate*)

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click buildings
3. Click senate building
4. Place on green area

**GUIDE PARTICIPANT:** We will research despotism for now. Despotism reduces the cost of your units in the barracks. Research despotism using your senate building to change the government of your civilization. (*interventionist have participants research despotism*)

1. Click senate building

2. Click despotism

### **Building a New City**

**GUIDE PARTICIPANT:** Building more cities allows you to expand your nation's territory borders. It also allows you to create more buildings to research faster, collect more resources, build more wonders, and help towards a territory victory. Build a new city. Note the number of cities you can build the top right of the screen. In this case you have built one but are allowed two cities. Military research will increase your allowed cities. *(have participants create a new city and explain that art of war increases population and city amount)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click the buildings button.
3. Click city button.
4. Locate an area for your new city. It must be within in your territory boundaries and should be near trees and a mountain.
5. Place on green area that expands your borders (scroll over)
- 6.

### **New Workers**

**GUIDE PARTICIPANT:** Let's build three more citizens for a farm, woodcutters camp and mine. *(interventionist have participants create more citizens for their new city resource collection)*

1. Click your new city.
2. Click on the citizen button three times.

### **New Farms, Woodcutter's Camps & Mine**

**GUIDE PARTICIPANT:** Now let's build a farm, woodcutter's camp and mine for our new city with our new citizens.

1. To Build Farm: Click on the idle citizen button or click one of the new citizens you just made.
2. Click on buildings.
3. Click on the farm button.
4. Drag your mouse to an area where you want to place your farm. The square will turn green when it is in a viable location.
5. Notice how your food production increases each time you build a farm.
6. To Build Woodcutter's Camp: Click on the idle citizen button or click one of the new citizens you just made.
7. Click on buildings.
8. Click on the woodcutter's camp button.
9. Drag your mouse to an area where you want to place your farm. The square will turn green when it is in a viable location.
10. Notice how your timber production increased.
11. To Build Mine: Click on the idle citizen button or click one of the new citizens you just made.
12. Click on buildings.
13. Click on the mine button.
14. Drag your mouse to an area where you want to place your mine. The square will turn green when it is in a viable location.
15. Notice how your metal production increased.

### **Caravans**

**GUIDE PARTICIPANT:** Caravans increase your wealth by connecting trade routes to your new city. Make a caravan to create trade between cities. *(interventionist have participants create a caravan to increase wealth)*

1. Click on market in your first city



2. Click caravan

**SAY:** Watch as the caravan connects the two cities. With this your wealth will increase. When you create more cities, create more caravans to connect them.

### **Military Level 2**

**GUIDE PARTICIPANT:** Research Military Level 2 to unlock mounted units. New ranks in military research increases population camps and allows access to new buildings and units.

*(interventionist have participants research new military technology level 2)*

1. Click on library in your first city
2. Click on Military Level 2

### **Stable & Mounted Units**

**GUIDE PARTICIPANT:** Horse Archers are fast mobile archers. The Cataphract is a melee unit useful against formations of ranged foot troops. Light Horses are fast and melee troops. Build a stable and all 3 mounted units. *(interventionist have participants create mounted units from a stable)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click military buildings button.
3. Click the stable button.
4. Place on green area.
5. Click on your new Stable.
6. Click on all three unit buttons four times, to create a total of 12 mounted units.

### **Seige Factory & Catapults**

**GUIDE PARTICIPANT:** The siege factory creates units that are better suited for attacking enemy buildings. Make siege factory (*interventionist have participants create siege factory for siege weapons*)

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click the military buildings button.
3. Click siege factory button.
4. Place on green area to build.

**GUIDE PARTICIPANT:** Your Goal in making a variety of units is to Create an invasion army that will help achieve a military victory. First, build 4 catapults. Catapults are costly and slow moving but have a long range and are effective against buildings. (*interventionist have participants create catapults*)

1. Click on the siege factory you just created.
2. Click on the catapult button four times to make four catapults.

### **Unit Upgrades**

**GUIDE PARTICIPANT:** By researching unit upgrades your basic units will become more powerful update versions of your previous units. As you advance through the ages you will need to update your troops with that age's technology. Update Infantry (*interventionist have participants upgrade unit*)

1. Click your barracks.
2. Click the Javelineer, Phalanx, and Archer buttons to upgrade your infantry units.

Second, create 5 of each of the 3 infantry units we created before, 15 units total.

1. Click your barracks.
2. Click on each of the three military units five times to create a total of 15 units.

### **Attack Enemy City**

**GUIDE PARTICIPANT:** When you destroy an enemy city, you can take over their city and their buildings. It will expand your territory while reducing the enemy's territory. Take over an enemy city. *(interventionist have participants move army to attack and take over a city)*

1. Select all the units you just created. There should be 45 foot soldiers, 12 mounted units and 4 catapults. Select all three of your new citizens by holding down the left click and dragging a box over all three citizens.
2. Right click near an enemy city to attack.
3. If you have destroyed all nearby enemies, select your troops and right-click the city to attack it.
4. To take over the city you must reduce its health bar to 0.
5. After this, there will be a short wait period before the city becomes yours and your territory increases.

### **Wonders**

**GUIDE PARTICIPANT:** Wonders are another path that you can follow for victory. Wonders are rare buildings that can be built in different ages. Only one player may have the wonder at a time and it provides wonder points. Build a wonder. You need 8 wonder points to win. *(interventionist have participants build a wonder)*

1. Click on the idle citizen button to select a citizen not working on another task.
2. Click the wonders button.
3. Click one of the available wonder buttons.
4. Drag your mouse to a green area where you wish to place the wonder.

### **Game Completion**

**GUIDE PARTICIPANT:** Congratulations, you have now learned the basics on how to play Rise of Nations. These are just a few of the basic strategies to get started in the game. As you get more practice you can try for any of the victory paths or strategies that interest you. We will now teach you how to save the game, exit the game, and load the game for when you need to continue a game later. Games in rise of nations may take a while to complete so knowing how to save and load a game so that you can continue playing it till completion is very important

*(interventionist have participants build a wonder)*

### **Saving Games**

**GUIDE PARTICIPANT:** In Rise of Nations it is important to save your game. Saving your game allows you to continue your game at another point in time. Some games may take longer than the 60-minute training session. Saving your game lets you continue playing the game at the point that it was saved. This allows you to keep playing that game until you reach the conclusion of the current game. *(have participant save)*

1. Hit the esc key until you see the game menu.
2. Click on the Text box at the beginning of the new save game. Add the number of the current game you are playing to the front of the save name. For your first Game please put a 1 before new save game.
3. After you complete your first game please number your save games such as 2 New save game, for your second game new save game, for your third game, and so forth for subsequent games.
4. Click Save.

### **Exiting Games**

**GUIDE PARTICIPANT:** Exiting the game allows you to quit the program properly. It closes the application and returns your computer to the desktop screen. Exiting the game properly assures you that the game is not running while you have finished your sessions for the day or while you have left your computer. *(interventionist have participants exit game)*

1. Hit the esc key until you see the game menu.
2. Click quit game.
3. Click ok to exit to the main menu.
1. Click Exit to return to your desktop *(diary should pop up)*

### **Filling out Diary**

**DEMONSTRATE:** The diary allows you to record your thoughts and feelings after each training session. With this diary, you will answer the following questions.

1. How **enjoyable, challenging, frustrating** you found the training that day.
2. And how **motivated** you were in the training that day.
3. Go ahead and answer those questions now for the introduction training you just completed.
4. The next question asks “During today’s session, for how many minutes, did you stop to complete another task”. If you were interrupted or had to take a break from task, you would enter the number of minutes you stopped the task
5. If you were not interrupted during your training session please click on the white box beneath the question and enter 0.
6. Enter the of number minutes you stopped to complete task. *(Help participant decide number)*

7. If you have any other comments on the task please write it in the comments section or enter “none”
8. Enter your comments now.
9. Once you have finished filling out your diary click the Save diary and Exit button.
10. You will complete a diary after each training session.

### **Load Saved Game**

**GUIDE PARTICIPANT:** The ability to load your saved games allows you to continue your game from a previous saved game. Some games may take multiple sessions to complete and being able to return to your previous saved location is valuable. Loading a previously saved game will allow you to start your game from the exact moment that you saved the game. This allows you to continue your strategy and advance towards victory in your previous game. *(have participants start and load previous game, then exit)*

1. To start Rise of Nations move your mouse to the Task 1 icon on your desktop. Remember to only click on the Task 1 icon **once**, if you double click the icon it will pull up 2 diary pages at the end of your session.
  - o Click anywhere to skip the intro videos if desired.
  - o Click Solo Game.
2. Click on the Load Saved Game. A menu screen will be displayed afterwards
3. Click on the name of your current game, such as 1 new game 2016.10.25 14'53'40 (Tue) or the save from the game you did not complete.
4. It will load your previous game and you may complete it with either a victory or defeat.

**\*If participant has not gone through the full 2 hours please continue with the script\***

**GUIDE PARTICIPANT:** We will now exit the game again and create a new game. We will go through this guide again to try to help you understand the basics of the game. Try to follow the guide and if you have any questions we will be here to help you. *(have participants create a new game. You will go back to the beginning of the guide for the second training session if there is time. Try to be a little more hands off but still give explanations. Let the participant use the manual to help in case they are confused.)*

## IADL Training (Fraud + AARP)

### IADL1 Training Protocol

**SPEAKING:** The Center for Research and Education on Aging and Technology Enhancement (CREATE) is conducting a study on cognitive training. This study seeks to measure the possible benefits of brain training games and other types of training on the performance of cognitive tests and everyday tasks such as driving and finance management. For this study, we want you to complete the two different online education courses:

1.) AARP driver safety course

2) And the finances and fraud online education.

The AARP Driver Safety Course is designed to refresh your driving skills and your knowledge of the rules and hazards of the road. The finances and fraud online education is designed to help you learn how to manage your finances and protect yourself from financial fraud. You need to complete each course one at a time at your own pace and we want you to complete each course twice within the next 4 weeks (before the second lab visit).

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We expect that you will be able to complete each course twice within the next 4 weeks if you spend around 30-60 mins per day, for 4-5 days a week. The detailed training schedule will be provided at the end of today with take-home manual.

### **Wifi Setup**

**DEMONSTRATE:** In this study, you will need to be able to connect to a wireless network. We will show you how to connect to a wireless network here, and you will need to follow these same steps at home. If you already have a wireless network at home, that's great. If not, we will provide you with a device that will provide you with wireless network for the length of the study.

\*If participant does not have internet please refer to MiFi Device Instructions on page 4.

1. First click on the wireless network icon in the bottom right corner of the desktop. This will pull up a list of wireless networks. (*show where to click to pull up network list.*)
1. For your training session, we will use the network FSU\_SECURE to train you on how to login to a wireless network.
1. Click FSU\_SECURE from the list of wireless networks.
1. Click the connect button.
1. In the password prompt enter the password CREATE2017.
1. Click the OK button.
1. The computer will now connect to the wireless network.
1. This is how you will connect to your wireless network at home or to your Mifi device.
1. An alternative option to plug an ethernet cable into your computer and the wireless router in your house. This allows you to connect to your WIFI through a wired connection and maybe more stable than using the WIFI connection.



1. Now, plug the Ethernet cord into the laptop. The other end goes into the wifi router in your home. (Help participant)
1. All of this information is available in the “HOW-TO-Connect” video on your desktop. Let’s play a little bit of that video now.
1. (Play first minute of HOW-TO-Connect video on participant computer if participant is unsure of ability to connect)
1. For this training session, we will need to connect to the wireless network of Florida State University.

**BEFORE CONTINUING CLICK ON THE FSU SECURE NETWORK, enter your credentials to login to the FSU network and continue.**

**MiFi Device Instructions:** Go grab a Mifi device from Thomas.

1. First click on the wireless network icon in the bottom right corner of the desktop. This will pull up a list of wireless networks. (*show where to click to pull up network list.*)
1. We will use the network CREATE\_#X to train you on how to login to the Mifi device.
1. Click CREATE\_#X from the list of wireless networks.
1. Click the connect button.
1. In the password prompt enter the password CREATE2017.
1. Click the OK button.

### **AARP Driver Safety Course**

**SPEAKING:** We want you to complete the AARP driver safety course first. So, now I am going to give you a demonstration of how to access and start the AARP driver safety course. Please

feel free to ask any questions at any time during the demonstration. Please also let me know any time you would like to take a break.

### **Open Task 1**

**DEMONSTRATE:** Now let's access the first task, AARP Driver Training, and start learning your daily tasks. First, you will need to:

1. Single click on the Task 1 icon once at the top left of your desktop.
1. This will bring you to the AARP training homepage.
1. You should have your window in full screen while you complete the course.
1. Click on the maximize button at the top right corner of the browser.

### **Logging In**

**SPEAKING:** You have been preassigned a login and password for this course. Your login information allows you to access and complete the course, and monitor how much of the training you have completed. Let's login to the course now and get started. *(Pause between instructions and wait for participant to attempt each step on their own. Only help if participant needs it.)*

1. First click on the log in button at the top right of the AARP website.
1. This is the login window. Here you will enter the email address and password that we setup when we purchased the AARP account for you.
1. The email address and password is located on the laptop, right here.
1. Now enter that login and password into the website to login.
1. Then click the "Log In" button.

### **Participant Complete Acct Info**

**SPEAKING:** Before you start the course, you will need to create your own account by entering additional information. Let's do that together now.

1. Please fill out information requested on the screen. You will need your driver's license number.
1. **(Make sure the default email address is not changed)**

**GUIDE PARTICIPANT:** You won't be asked to enter the information again the next time you log in. From now on you will just need to type the email address and password to start training and click "Log in."

**ASK:** Do you have any questions before we continue?

### **My Account Page**

**GUIDE PARTICIPANT:** This is your training summary for the course. This will provide information on how much of the training you have completed. It will also tell you that how many days left to complete, but please disregard that information (Days Left to Complete). Regardless of that information, as mentioned above, you just need to **complete both courses twice** (AARP Driver Safety Course and Finances & Fraud Education) within 4 weeks. This driver safety course will take around 6 hours to complete.

### **Start Course & Menu**

**GUIDE PARTICIPANT:** Let's start the course now and go over it together.

1. Click the "CONTINUE TO COURSE" button to start the training session.
1. A new popup window will appear and the course will automatically start, but I **am going to manually pause the video.**
1. The course consists of several different units shown here in the menu. *(point at the Menu section).*
1. Starting with the "Introduction" and ending with a final overview and assessment in "Unit 6: What Have We Learned".

1. You must always complete the units in order.

### **Navigating the Course**

**GUIDE PARTICIPANT:** Now let's get into how to navigate the course.

1. You can pause or resume the course by clicking the play or pause button.
1. Click the “play” button at the bottom to resume the slide and then “pause” to stop the course.
1. You can move forward through the tutorial by clicking the “NEXT” button in the lower right corner after each slide (*point at the NEXT button*).
1. You will also find a “BACK” button (*point at the Back button*) Use the “BACK” button if you want or need to go back one slide that you have already visited. Slides you have already visited will be indicated in a light grey.

### **Complete the “Introduction” Section**

The Introduction section of the course (*point at Introduction in the Many bar*) presents a brief overview of the tutorial and more detailed instruction about how to navigate through the tutorial.

1. Now please go through the Introduction carefully, I will be here to help if you need it. You will learn how to use all the different buttons during the tutorial.
1. (*have participants go through the whole introduction. Don't leave while they complete the introduction – and when they finish, ask them to stop the course by clicking the pause button*).

**AFTER COMPLETING INTRODUCTION:** All right great. During your 4 weeks of at home training, we want you to spend roughly 30-60 minutes per day on this course. Never complete

more than 2 units per day or train more than 5 days a week. It's best to complete units as shown on page 2 of the take-home manual. We will go over this in more detail later. Do you have any questions?

### **Exiting the Course**

**SPEAKING:** Now I want to show you how to close the course after you finish your session for the day. When you want to exit the course do the following:

1. Click on the "X" at the top right of the screen to close the course popup.
1. Then click on the "X" again to exit the browser completely.
1. This will close the AARP driver safety course page and pull up your diary.

### **Filling out Diary**

**DEMONSTRATE:** The diary allows you to record your thoughts and feelings after each training session. With this diary, you will answer the following questions.

1. How **enjoyable, challenging, frustrating** you found the training that day.
1. And how **motivated** you were in the training that day.
1. Go ahead and answer those questions now for the introduction training you just completed.
1. The next question asks "During today's session, for how many minutes, did you stop to complete another task". If you were interrupted or had to take a break from task, you would enter the number of minutes you stopped the task
1. If you were not interrupted during your training session please click on the white box beneath the question and enter 0.

1. [Enter the of number minutes you stopped to complete task. \(Help participant decide number\)](#)
1. If you have any other comments on the task please write it in the comments section or enter “none”
1. [Enter your comments now.](#)
1. [Once you have finished filling out your diary click the Save diary and Exit button.](#)
1. You will complete a diary after each training session.

### **Finances & Fraud Education**

**SPEAKING:** Now I am going to give you a demonstration of how to access and start the second training course, **the finances and fraud education**. This course is structured very similar to the AARP driver’s safety course we just went over.

### **Open Task 2**

**DEMONSTRATE:** The finances and fraud education is accessed by clicking the second task.

First, you will need to:

1. [Click on the task 2 icon once at the top left of your desktop.](#)
1. This will bring you to the Finances and Fraud homepage.
1. You should have your window in full screen while you complete the course.
1. [Click on the maximize button at the top right corner of the browser.](#)

This finances and fraud education course will also take about or less than 5-6 hours to complete.

As you would do for the AARP driver’s safety course, we want you to spend roughly 30-60 minutes per day on this course. Never complete more than 2 units per day or train more than 5 days a week. It’s best to complete units as shown on page 2 of the take-home manual. We will go over this in more detail later. Do you have any questions?

Also please remember to only click on the Task 1 and Task 2 icons **once**, if you double click the icon it will pull up 2 windows and 2 diary pages.

### **Logging In**

**GUIDE PARTICIPANT:** To access this course all you have to do is enter the password. The password is located on your laptop, it's "CREATE2017."

1. Enter CREATE2017 into the box designated password.
1. Click "Login" to continue to the course.
1. The course will automatically start, but **I am going to manually pause the video.**
1. The course consists of several different units shown here in the menu. *(point at the Menu section).*
1. Starting with the "Home" and ending with a final overview and assessment in "Unit 8".
1. You must always complete the units in order.

### **Navigating the Course**

**GUIDE PARTICIPANT:** Now let's get into how to navigate the course.

1. You can pause or resume the course by clicking the play or pause button.
1. Click the "play" button at the bottom to resume the slide and then "pause" to stop the course.
1. You can move forward through the tutorial by clicking the "NEXT" button in the lower right corner after each slide *(point at the NEXT button).*
1. You will also find a "BACK" button *(point at the Back button)* Use the "BACK" button if you want or need to go back one slide that you have

already visited. Slides you have already visited will be indicated in a light grey..

1. You also may jump back to specific slides or units you have already visited by selecting the specific slides in the menu. The slides that you haven't viewed yet will remain black. You are not able to jump to them via the menu. *(point at the menu section).*

### **Complete the “Home” Section**

The “Home” section of the course *(point at “Home” in the Manu bar)* presents a brief overview of the tutorial and more detailed instruction about how to navigate through the course. In order to complete the course, you just listen to the instructions from the course carefully and simply follow them during the course.

1. *Now please go through the “Home” section carefully, I will be here to help if you need it. You will learn how to use all the different buttons during the tutorial.*
1. *(have participants go through the whole introduction. Don't leave while they complete the “home” section – and when they finish, ask them to stop the course by clicking the pause button).*

**SPEAKING:** We won't go further on this training today because you need to complete the AARP driver's safety course first.

### **Exiting the Course**

**SPEAKING:** Like the AARP course, after each of the daily sessions, when you want to close the session:



1. Click on the “X” at the top right of the screen to close the course and browser.
1. This will close the Fraud Training course and pull up your diary.

### **Filling out Diary**

**SPEAKING:** Please fill out the diary after each training session.

1. Go ahead and fill out the diary now, just like before.
1. *(Make sure “stop to complete another task” is entered correctly.)*
1. *(Explain diary to participant only if struggling.)*

### **After Course Completion**

**SPEAKING:** After you complete this Finances and Fraud course for the first time, you will be asked to repeat both courses again. Please refer to the training schedule attached in the take-home manual and follow the schedule. Do you have any questions?

### **Resuming AARP Driver’s Safety Course**

**DEMONSTRATE:** For the rest of today’s lab training session, we want you to resume the AARP driver’s safety course and complete **Unit 1**. This time you will try to start the AARP course based on what you just learned. I will be here to answer any questions you may have and help guide you through your training. But we also want you to attempt to use the take-home manual as practice for the time when you are alone at home and might have a question that the manual could answer. Let’s start the course when you’re ready.

*(Watch if the participant can figure out how to get back to AARP and start Unit 1. Remind participants of that all the necessary information needed is described in the take-home manual and encourage them to use the manual from this point if they have questions, so that they can*

*also learn how to find information from it. If you have any questions, you can also refer to the take-home manual to guide participants.*

*(Once they finish the unit 1, ask them to stop the course and fill out the diary)*

### **End of Lab Training Session**

**AFTER COMPLETING AARP UNIT 1 & Diary:** Do you have any questions or anything that needs clarification before we end our training?

*(Interventionist should answer any questions. Also please emphasize that we want them to complete each course twice and follow the training schedule attached in the manual. Especially, tell them they don't go to the last unit of each course – unit 6 for the AARP driver's course and unit 8 for Finances and Fraud course if it is "the first time". Please show them the training schedule!!!)*

Control training (Crosswords, Sudoku, Word Search)

## **Call Scripts**

### **One week call - CHECK IN**

Hi, this is [your name] from the CREATE lab at FSU. Is \_\_\_\_\_ there? So, it's been a week since you were given a the laptop as part of your participation in the CE study and I'm just calling to check in and make sure you're not having any problems with [the condition] or with the laptop in general.

### **Setup appointment - POST**

Hi, this is [your name] from the CREATE lab at FSU. Is \_\_\_\_\_ there? I was just calling to remind you of your two post testing days are [post testing days], and we ask that you bring in the

laptop and all other materials with you when you come in for those days. If you have any questions please call 850-800-6339. Thank you.

### Setup appointment - FOLLOW UP

Hi, this is [your name] from the CREATE lab at FSU. Is \_\_\_\_\_ there? Last [date of Post Testing] you completed your Post Testing for the Comparative Effectiveness project and we are coming up on the date for your Year Follow Up appointments. I was wondering if you had a couple minutes for us to schedule those two appointments to our lab? These appointments would need to be scheduled after [Post 1 month/day]. (Each appointment is an hour and a half to 2 hours and they will be given the remaining \$40 in compensation)

Alright, great so you're all scheduled. Our address is 1107 West Call St. When you come, just drive up to the roundabout and someone will be there to meet you. Can you tell me the color and model of your car so we can recognize you?

If you have any questions please call 850-800-6339. Thank you.

Support

## ADVERSE EVENTS