Communication Research Center

Policies & Protocols for CRC Research

Version 1.0

About This Document

This document contains rules and guidelines concerning human subjects research in the Communication Research Center (CRC) at Boston University (BU). Human subjects research is any form of research that involves bringing human participants into the CRC as part of a study. This includes experiments, focus groups, surveys, and interviews. Research participants are often BU students or staff members, but research may also be conducted with participants who are not BU-affiliated.

It is each researcher's individual responsibility to read through these policies and procedures and adhere to their guidelines for managing reservations, respecting the CRC's facilities, technologies, and services, as well as treating participants with respect and professionalism. Researchers should bear in mind that BU students and staff are often invited to participate in multiple studies and that a negative experience with one study may seriously impact the respondent's willingness to partake in later research.

If you have questions about CRC facilities, technologies, and/or services, please refer to the CRC Resource Guide. If you have questions concerning the information detailed in this document, please contact the CRC Staff at crc_admin-l@bu.edu.

Table of Contents

I.

Coordinating Your Research Study

STEP 1: Determine need for IRB approval

Any formal research in the CRC requires prior Institutional Review Board (IRB) approval. Small class projects, such as one-time focus groups, may not require IRB approval. For assistance with determining whether your project requires approval, please refer to <u>BU's Human Subjects Research website.</u>

STEP 2: Complete *Request for Research Study Details* form

If you intend on conducting a research project that will require recurrent use of the CRC's facilities and/ or technologies, you are expected to complete the CRC's *Request for Research Study Details* form in full as early in the semester in which you will be conducting your research as possible. This form is made available on a semester-by-semester basis—if a research project will run from the fall semester into the spring semester, for instance, you will be expected to complete this form twice (once in the fall and once in the spring).

It is important to note that **completion of this form does not count as a formal reservation of any of the CRC's resources.** Rather, it is a way for the CRC administrative staff to stay informed of the semester's upcoming studies, get a preliminary sense of which resources will be in demand in the coming months, and set up long-term data storage for those who require it.

Here is the kind of information the *Request for Research Study Details* form will prompt you to provide:
- The **name(s), titles and email addresses of you and any co-researchers**
- A preliminary **title for your research project**
- The **faculty advisor** associated with your project
- Approximate **start date, end date, and deadline** (if applicable) for your project
- **Details regarding IRB** approval/status (if applicable)
- Whether you will require an **iMotions-enabled laptop** for your project
- Whether you will require **long-term storage** for your research data

STEP 3: Review *Data Storage Policy* & plan accordingly

In order to keep the CRC's computers running properly, **all locally-stored data are routinely cleared from the CRC's desktop and laptop computers at the end of each semester.** Researchers conducting studies in the CRC should adhere to the *Data Storage Policy* detailed below:

The CRC and COM IT are **not responsible** for any data stored on CRC computers that are lost, corrupted, or otherwise compromised, and we expect that you and/or your co-researchers will, throughout the lifespan of your project, **regularly back up your research files to a secure, secondary location** (i.e., an external hard drive or cloud-based server) in accordance with any IRB-imposed protocols.

As explained in the *Request for Research Study Details* form (Step 2), any **researchers who will be conducting their study using iMotions and will need access to their iMotions data past the semester's**

end are eligible to receive expanded Dropbox storage—this is due to the large size of exported iMotions study files. In such cases, the CRC Lab and Research Manager will ask COM IT to provide you and any co-researchers with expanded Dropbox storage, then share a private Dropbox folder with you/your co-researchers. This folder will serve as a secondary, remote location to which you will be responsible for saving your exported iMotions study for storage beyond the current semester. Once saved to Dropbox, an iMotions study can be downloaded locally and re-uploaded to any iMotions-enabled laptop. **In all other cases, it is the responsibility of the researcher to secure their data for storage beyond the span of the semester in which their research took place.**

STEP 4: Make room & technology reservations

Any researcher wishing to conduct human subjects research in the CRC must use the <u>QReserve system</u> to reserve rooms and equipment. QReserve can also be used to make reservations for technology available in the CRC, such as laptops, audio or video recorders, and physiological sensors.

The CRC Staff are available for technology pick-up and return between **9am to 5pm from Monday through Friday.** If you will need to pick up or return equipment outside of these hours, the CRC Staff can loan you a key to a locked cabinet where you can pick up, drop off, and store your CRC equipment off-hours. You will need to contact the CRC Staff (crc-admin_l@bu.edu) in advance to make these arrangements and must return your cabinet key at the end of your research study.

Bear in mind that there are often multiple studies taking place in the CRC simultaneously. Therefore, **it is imperative that you leave your reserved rooms and return your reserved items at the scheduled time,** as other studies may be awaiting their use. When making reservations, **respect your fellow researchers.** Do not reserve rooms or technology for unnecessarily long blocks of time, and do not hold onto "safety" timeslots unless you intend to use them.

If you cannot find reservation hours that accommodate your schedule, or if your study requires a specific room or technology that is frequently reserved, please contact the CRC Staff (crc-admin_l@bu.edu) with details of your situation and needs.

Setting up your QReserve account
1. Sign up for an account at <u>my.qreserve.com</u> with your BU email address. Check your BU inbox for verification.

2. After signing up and verifying your account, log in to QReserve. Fill out your profile with your first and last name, display name, and location (suggested: "Boston, MA, USA")

3. Go to the Search section in the center right of the page. Select "Boston University (Public)" under "Portal Selection."

   Type the keywords "Communication Research Center" and select the CRC's account (shown at right).

4. Click on the "Join Site" button on two successive pages to join the CRC. Leave a message if you need to contact the CRC Staff about CRC resources or reservations via QReserve.
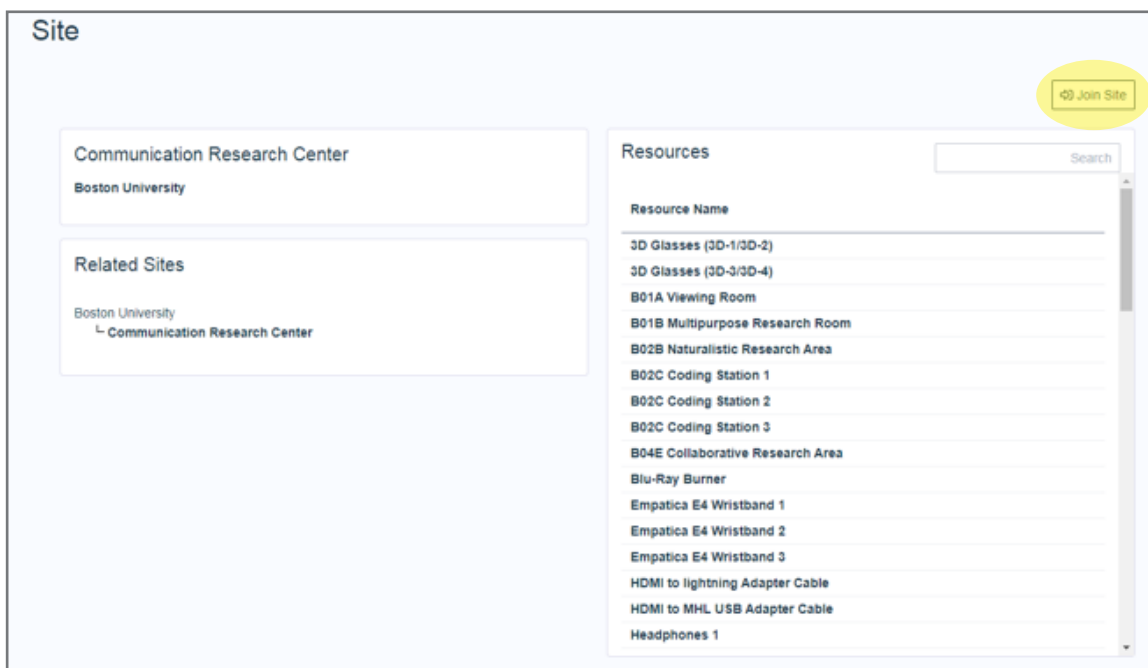
Making a reservation in QReserve
Via the CRC website:
1. Visit the CRC Reservations page located at sites.bu.edu/crc/research-resources/reservations/

2. Search for the desired equipment or space. You can filter resources by equipment or location or scroll through the list to select the equipment or location you wish to reserve. Note that some devices are intentionally not loanable and can only be used at the CRC.

3. When you have found the resource you would like to reserve, click on "Check out in QReserve." You will then be redirected to the QReserve site.

4. To log into QReserve, enter your BU email address and the password associated with your QReserve account.

5. Click the "View Calendar" button to view available times for reserving the desired resource.

6. Within the calendar, click on the desired date of reservation and fill out the reservation form with the purpose, notes (if needed), and your name. Select the time and duration for the reservation. If you would like the reservation to recur on a daily, weekly, or monthly basis, select the corresponding option in the "Recurring" drop down menu and set the dates and times accordingly.

   Pay attention to the specific requirements and descriptions of some items. Contact the CRC Staff (crc-admin-l@bu.edu) if you have any questions about specific requirements.

7. Click "Reserve"; a request will then be submitted to the CRC Staff for approval.

8. Once a member of the CRC Staff has approved your reservation, you will be able to use your equipment/room for the allotted time slot. You should receive an email confirming that your reservation has been made. If you have reserved a loanable piece of equipment, you will be able to pick it up at the CRC by having a member of the CRC Staff hand it off to you.

Via the QReserve website:

1. Log in to my.qreserve.com with your BU email address and associated password.

2. From your dashboard, navigate to the "Memberships" tab on the left side of the page and select "Communications Research Center." This will bring you to the resource list. From here, you can search for a resource, filter the list by equipment or location, or scroll through to select the equipment or room you wish to reserve. Note that some devices are intentionally not loanable and can only be used at the CRC.

3. Within the calendar, click on the desired date of reservation and fill out the reservation form with the purpose for your reservation, notes (if needed), and your name. Select the time and duration for the reservation. If you would like the reservation to recur on a daily, weekly, or monthly basis, select the proper option in the "Recurring" drop down menu and set the dates and times accordingly.

    Pay attention to the specific requirements and descriptions of some items. Contact the CRC Staff (crc-admin-l@bu.edu) if you have any questions about specific requirements.

4. Click "Reserve"; a request will then be submitted to the CRC Staff for approval. Once a member of the CRC Staff has approved your reservation, you will be able to use your equipment/room for the allotted time slot. You should receive an email confirming that your reservation has been made. If you have reserved a loanable piece of equipment, you will be able to pick it up at the CRC by having a member of the CRC Staff hand it off to you.

STEP 5: Begin participant recruitment

Using the SONA System

Researchers in COM have access to the SONA system, which facilitates the recruitment of student participants for online and onsite studies. For more information on the SONA system, please refer to the "SONA" section in the CRC Resource Guide or visit sites.bu.edu/crc/research-resources/sona. Please note that in most situations, studies involving human subjects will require prior IRB approval in order to be posted on the SONA system.

It is highly advised that you make reservations for CRC rooms and technology prior to creating the same timeslots in SONA, as your intended timeslots may not be available for corresponding facility and/or equipment reservations. When planning timeslots, take into account any time you may need for preparation before and/or between participants. For example, if your study lasts approximately 40 minutes, you should consider creating 1-hour time slots rather than 45-minute timeslots in order to allow for clean-up and preparation between participants, as well as flex time for participants who arrive late to the study.

If your study is very brief, such as an experiment lasting less than 15 minutes, you should consider coordinating your timeslots and reservations with another research group or project. In this case, you may be able to combine your studies into a 30-minute or 1-hour timeslot which would facilitate the scheduling of rooms and sharing of technology.

Timeslots with Multiple Researchers

Many studies involve multiple researchers and research assistants. In order to create timeslots in these situations, we suggest making a spreadsheet in Google Sheets with a column for each researcher. Assign each researcher a color (or two colors, one for available times and another for preferred times) and have each researcher color in their availability. After all researchers have done so, you can consolidate the

best hours into a single, color-coded schedule. See below for a split schedule (left image) and consolidated schedule (right image) with two researchers.
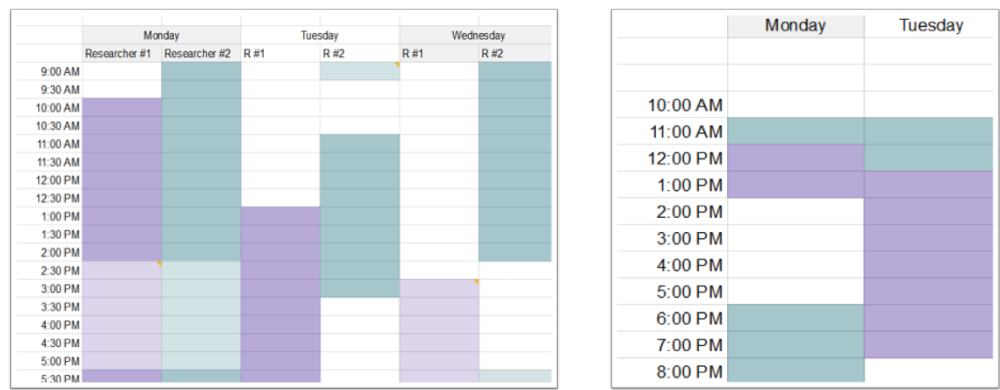
Recruiting Outside the SONA System

Researchers do not need to recruit solely from the SONA system. Studies that recruit from outside the system may still use CRC facilities and technologies and should follow the same guidelines. If you are recruiting from outside SONA, consider printing paper flyers with study details. IRB-approved flyers must contain the following: contact information of the researcher and faculty advisor (if applicable), the general purpose of the study, the time commitment required of the participant, any participation eligibility criteria, and any benefits to participants. Please note that the IRB does not permit recruitment flyers to "emphasize the payment or the amount to be paid, by such means as larger or bold type," or any other form of excessive advertisement. See BU Research Support's Recruitment and Advertising page for further details.

If you are targeting students or young participants, consider distributing flyers throughout BU's campus (while adhering to any rules about bulletin boards), as well as in areas frequented by students, such as local coffeehouses. You may also recruit participants online or through word of mouth or snowball sampling.

STEP 6: Arrange for after hours data collection as needed

The front doors to the 704 Commonwealth Avenue building lock at 6pm on weekdays and remain locked during the weekend. In order to access the CRC through the main building entrance after hours, contact the CRC Staff to gain 24/7 swipe card access to the rear doors in the back of the building. If you have timeslots after 6pm or during the weekend, keep in mind that your participants will not be able to enter the building on their own. You must develop a procedure to allow them access.

One option is to tape a sign to the front door of the 704 Commonwealth Avenue building that lists the name of your study and a phone number for participants to text or call once they arrive. After participants contact you, you can open the front door for them or direct them to the back door. A second option is to email explicit instructions for participants to meet you at one of the rear doors (e.g., the red door next to the parking lot behind 704 Commonwealth Avenue). We advise combining these options: email the participant with instructions and leave a reminder sign on the front door of the building in case the participant does not see or forgets the email.

If you recruit participants through SONA, you can select after-hours timeslots and send them a mass email containing these instructions. Whichever method you choose, it is critical that you and any co-researchers are aware of the after hours procedure and carry it out in the same manner.

Creating & Implementing a Research Protocol

Purpose of Protocol

A study protocol is a document that details all steps undertaken prior to, during, and after a subject's participation in a study. The protocol often includes instructions for setting up technology and sensors, verbatim scripts to be read to the participant, and troubleshooting advice and/or fallback options if something in the study goes amiss.

Study protocols are particularly useful for studies involving multiple researchers because precise instructions and scripts allow for greater reliability and standardization across researchers. However, even single-researcher studies benefit from developing a study protocol, as protocols provide control and consistency across multiple participants and study sessions. The same verbatim script, repeated to every participant, lessens the chance that a researcher's individual bias might influence the way the study is presented to a participant.

Long-term studies also benefit from study protocols, especially if the study takes place across multiple semesters with intervening gaps in time. A protocol ensures that the study procedure will not change from one semester to the next. Finally, a study protocol aids future researchers in precisely reproducing the study to confirm its findings.

Structure of Protocol

The length and organization of a protocol will vary greatly from study to study. However, we suggest that most studies observe the following guidelines wherever applicable. We recommend the protocol be divided into the three sections detailed below: protocol prior to the participant's arrival, after arrival/during the study, and after the participant completes the study. Depending on the nature of the study, you may need to develop multiple protocols for different stimulus conditions (for experiments only), using the same overall structure and sharing similar scripts.

A protocol should incorporate images, visuals, and screenshots wherever useful. Visuals might include a photograph of all needed technology or the complete setup prior to a participant's arrival. For studies that require extensive preparation in the iMotions platform (e.g., sensor hardware and system interface), we recommend screenshots of both the setup and possible troubleshooting suggestions.

Throughout the protocol, verbatim scripts of what the researcher will say to a participant at given points in the study should be highlighted in some way. This could entail the use of a separate font color, italics, bold, or some other manner of emphasis. This allows researchers to quickly locate the scripts and read from them precisely during the study.

The following is an excerpt from a protocol that uses an *italicized red style* for the necessary script and ***italicized and bolded black styles*** for the optional scripts:

> ### Protocol Script Example
>
> c) Place GSR sensors on the subject's index and middle fingers of his or her non-dominant hand. Check the iMotions laptop to ensure a good GSR connection. To do so, click the GSR pane to open the data viewer; verify that the signal is smooth and consistent.
>
> d) *"I will now assist you in putting on the headset. Once the headset is on, please take a moment to adjust the fit using the straps on the top and side of your head. The display should fit snugly, yet comfortably, against your face and should not move when you move your head. You should be able to see 'The Daily 360 logo' projected on the display clearly."*
>
> There are a few different ways to adjust the headset (you can provide these tips below to the participant):
> - ***Adjusting the straps on the sides*** *of the headset allow you to pull the display closer to or further away from your face.*
> - ***Adjusting this top strap*** *allows you to alter the angle that the headset rests on your face. You want it to touch your cheeks, so that you can't see the actual floor. There should be minimal pressure on your cheeks when wearing.*
> - ***Once on your head, you can also slightly angle the display upward****, tilting it towards your forehead,* ***or downward****, tilting it towards your cheeks, to optimize the fit.*
>
> *"The goal is to make sure it is **comfortable** and that the picture **resolution** looks as sharp as possible. Let me know when you're comfortable and when "The Daily 360" logo looks sharp. If you need assistance, I'm happy to help."* [Assist the participant in putting on and adjusting the HMD, as necessary.]
>
> e) On the laptop, press the red "REC" button in iMotions to begin data collection.

After drafting the protocol, you should carry out a trial run to see whether you have missed any steps. Have a fellow researcher (or someone unaffiliated with the study if it is a single-researcher study and the other person will not be a participant) follow your protocol precisely as it is written. Very often, you will realize that you have skipped steps that seemed obvious to you when writing the protocol or that the steps are not clear or require additional details. You may need to test and edit the protocol more than once or adapt the protocol slightly after the first participant. However, edits made to the protocol *after* the study has launched should only be technical or clarifying in nature; you should not change the wording of scripts or the order of main steps once the study has begun.

PART 1: Prior to Participant's Arrival
The first section of the protocol should detail procedures to be followed prior to the participant's arrival in the CRC. The protocol's introduction should address general guidelines for researchers, such as appropriate attire and level of professionalism needed during the study. Generally speaking, researchers should avoid clothing with large logos (e.g., corporations, sports teams, schools) and other symbols that might prime a participant (e.g., pop culture characters, TV shows), as well as dirty or damaged clothing. There should be no food or drink present in the data collection area, with the exception of water provided to participants or prearranged food provided to focus groups.

Researchers should be aware of their conduct when expecting a participant and avoid engaging in unprofessional behavior (e.g., watching loud videos, playing video games) prior to a participant's arrival, as there is a chance the participant could arrive early.

As mentioned above, a negative or unprofessional experience with one study can negatively impact a participant's perception of the CRC (and research) as a whole. As such, researchers should always endeavor to be professional, courteous, and responsive to the participant's concerns and comfort.

The protocol's introduction should also include basic information about:
- In which room(s) the study will take place,
- which piece(s) of technology the study will use, if applicable, and
- how to contact CRC Staff should the room or technology not be available as expected.

The protocol itself will begin with preparations in and around the CRC. For timeslots within regular CRC hours, the researcher should set up one or two signs directing participants from the front door to the basement level of 704. For timeslots outside of regular hours, the protocol should detail additional steps to be taken (see "After Hours Access" above). Inside the CRC, the researcher should place a "Study in Session" sign on the door of the study room. These signs are available in the folder outside B02A. The researcher might also consider setting up signs in the CRC kitchen asking that people not wash dishes or make excessive noise during the study (if applicable) or simply alerting those in the CRC to the fact that a study is about to begin.

After handling signage, the researcher should set up the room itself. For experiments, this may include running iMotions, connecting sensors, and queueing stimuli. For focus groups and interviews, this may include setting out cups of water, rearranging tables and chairs, and ensuring the space is clean and welcoming. For any type of human subjects research, the researcher should prepare a consent form prior to the participant's arrival. Depending on the study's IRB approval, the consent form may be presented either in a paper or electronic format.

In summary, the study protocol *prior to a participant's arrival* will most likely include the following:
- Introductory material:
  » Introduction of professional guidelines
  » Basic study information (room number(s), equipment, emergency contact info)
- CRC preparation:
  » Directional signage for participants
  » After hours signage if applicable
  » "Study in Session" sign
- Study room preparation:
  » Obtain technology from CRC

PART 2: Once Participant Arrives

The second section of the protocol should detail procedures to be followed once the participant (or, in the case of focus groups, participants) arrives. The protocol should include a script for greeting the participant and bringing the participant into the study room. Immediately after bringing the participant inside, the researcher should present the consent form and answer any questions from the participant. If the participant declines to give consent, the participant should be thanked and escorted out of the room.

Next, the researcher should give a step-by-step overview of the study, even if the consent form already contains this information. For interviews and focus groups, the researcher might list the major topics to be discussed, explain the structure of questions and expected responses (e.g., each person speaks in turn around the circle vs. anyone can speak at any time), and reiterate that the study's audio will be recorded and transcribed. For experiments, the researcher might discuss in general the stimuli and the sensors involved in the study. Of course, the researcher will not want to give overly precise details about a study's procedure, so as not to influence the participant. This is another reason that researchers should

document and follow a verbatim script for every participant so that some participants do not receive more information than others. When providing the participant with a verbal overview of the study, the researcher should be sure to check whether the participant has any questions before proceeding.

For experiments that require sensors, the researcher should have a script that addresses the participant's comfort. **The researcher should always notify the participant prior to making physical contact and verify the participant's continued consent during the process of attaching the sensor(s).** Whenever possible, the researcher can offer to have the participant attach the sensors rather than being touched. After the participant is prepared for the experiment, the researcher should reiterate that he or she is available outside the room should any issues arise and ask again for any questions before leaving the room.

For any research using technology, it is likely that the technology will not operate correctly for at least one participant over the course of your study. Include in the study protocol how to address different technology failures. For example, if a laptop loses Internet access during a post-stimulus survey, should the participant be asked to complete the survey again on a separate device? If a participant cannot satisfactorily perform the eye-tracking calibration procedure, should the study proceed anyway? If a participant cannot wear a VR headset, should the participant be assigned a different condition? Although these questions do not have a single correct answer for all studies, the protocol must decide on a consistent answer across all researchers and participants in a given study.

The protocol must also address participants who decline to give consent, who cannot complete the study due to medical or personal reasons, or who do not show up at all. A procedure for handling these non-participation situations might be included in this section of the protocol or in a separate addendum at the end of the protocol. Wherever it is placed, the procedure should address: 1) whether to grant the participant SONA credit or other compensation, and 2) whether the non-participation affects the random assignment of a stimulus/condition.

In summary, the study protocol *after a participant's arrival* will most likely address the following:
- Handling the participant:
  » Greet participant
  » Obtain consent
  » Introduce study to participant
  » Attach sensors if applicable
- Troubleshooting issues:
  » Technology issues
  » Participant issues (cannot complete study; did not arrive; etc.)

PART 3: After Study Completion
The final section in the protocol should detail procedures to be followed after the participant completes the study. In experiments, this may include removing sensors and stopping a screen-recording. In all cases, this should include debriefing and thanking the participant and asking the participant not to share the details of the study with other potential participants. At this point, the researcher should offer direct compensation for the study or provide credit through SONA wherever applicable. Before escorting the participant out of the study room, the researcher should check that the participant has not left any belongings in the room.

After seeing the participant out, the researcher should immediately return to the study room. First, the researcher should either refer back to the protocol's first section and prepare the room for the next participant or clean up the room if this was the last participant of the day. During the time between participants, the researcher should charge any technology being used, including laptops, tablets, and sensors.

The protocol should comprehensively include final "closing out" steps similar in detail to the preparation steps. These final steps might include straightening up furniture (if chairs or tables have been moved), tending to devices (e.g., turning off the TV, logging out of computers), removing trash (such as alcohol wipes and water cups), and taking down signage. Finally, the researcher should return any reserved technology to a CRC Staff member on duty or store it in a secure location if the technology has been scheduled to be returned at a later time.

The researcher should consider keeping technology plugged in and charging during the clean-up procedure and/or alerting the CRC Staff that the technology needs some time to charge before being stored.

As noted previously, another study's researcher may be waiting for the room and/or technology after your reservation has ended. Therefore, please execute this procedure as efficiently as possible to allow the next researcher(s) access to the room.

IMPORTANT: If collecting data digitally on a local machine (e.g., iMotions data on a laptop, video and or audio recordings), you should be sure to save or back-up your data to an external hard drive and/or cloud-based drive. It is recommended that you do this at the end of each day of data collection. To this end, when reserving rooms and equipment, you should factor in time needed for completing data back-up at the end of the final session of each day of data collection. Additionally, when you have completed the data collection phase of your study, please be sure to save and then fully remove your data (e.g., iMotions study file, iMotions participant data, stimulus video files) from the shared CRC machines. See Section 1 of this document for more information about the CRC's *Data Storage Policy.*

In summary, the study protocol *after a participant completes the study* will most likely address the following:
- Handling the participant:
  - » Remove sensors
  - » Debrief and thank participant
  - » Grant credit/compensation
- If expecting another participant:
  - » Charge technology
  - » Reload stimuli, etc.
- If final participant:
  - » Rearrange furniture
  - » Remove trash
  - » Tend to devices (including saving data to external and/or cloud-based drive)
  - » Remove signage
  - » Return technology to CRC Staff

See the following page for a checklist to be used as a guide for your entire study protocol.

PART 1: Prior to Participant's Arrival

- ❑ Introductory material:
  - ❑ Introduction of professional guidelines
  - ❑ Basic study information (room number(s), equipment, emergency contact info)
- ❑ CRC prepartion:
  - ❑ Directional signage for participants
  - ❑ After hours signage if applicable
  - ❑ "Study in Session" sign
- ❑ Study room preparation:
  - ❑ Obtain technology from CRC Staff
  - ❑ Experiments: Prepare iMotions, sensors, stimuli
  - ❑ Focus groups: Prepare water and arrange furniture
  - ❑ All studies: Prepare consent form (paper or electronic)

PART 2: Once Participant Arrives

- ❑ Handling the participant:
  - ❑ Greet participant
  - ❑ Obtain consent
  - ❑ Introduce study to participant
  - ❑ Attach sensors if applicable
- ❑ Troubleshooting issues:
  - ❑ Technology issues
  - ❑ Participant issues (cannot complete study, did not arrive, etc.)

PART 3: After Study Completion

- ❑ Handling the participant:
  - ❑ Remove sensors
  - ❑ Debrief and thank participant
  - ❑ Grant credit/compensation
- ❑ If expecting another participant:
  - ❑ Charge technology
  - ❑ Reload stimuli, etc.
- ❑ If final participant:
  - ❑ Rearrange furniture
  - ❑ Remove trash
  - ❑ Tend to devices (including saving data to external and/or cloud-based drive)
  - ❑ Remove signage
  - ❑ Return technology to CRC Staff

@BUCOMResearch

facebook.com/BUCOMResearch

Communication
Research Center

sites.bu.edu/crc

crccom@bu.edu

704 Commonwealth Ave.
Boston, MA 02215

(617) 358 1300

BU

Boston University College of Communication
Communication Research Center