

Study Coordinator Training Checklist – UW DISC Lab (prepared by Tim Wilbur)

This document is meant to serve as a resource for study coordinators who will be present at the DISC lab for research studies. All points should be checked off prior to the first study visit. DISC personnel are available to answer any questions regarding the checklist.

Preparing your project:

- Has your PAF been submitted?

All projects must have a Project Application Form approved by the DISC lab director prior to any study visits.

- Do you know what services and facilities are available at the DISC lab?

The DISC lab has set up a variety of services and facilities to help with your study.

- Do you know how to use the online scheduling tool?

You should schedule your study visits using the online calendar tool. The online tool is used to schedule time on the MRI, the mock-scanner, and other facilities at DISC.

- Do you know what to do if there is an emergency at the DISC lab while you are here?

Be sure to review the emergency procedures with DISC personnel.

- What extra equipment is required for your study? Do you know how to set it up?

There are several pieces of ancillary equipment that may be required for your study, including: eye tracker, response buttons, audio, physio, etc. DISC personnel are available to assist with training and setup of these devices, but it is the coordinators responsibility to make sure the devices are set up properly and that the associated data is collected and saved correctly.

- Has an examcard been built and tested for your study?

Each study needs an examcard, which describes the specific scans that are run during the session.

- Has your fMRI stimulus paradigm been built and tested?

If your study includes an fMRI component, there may be a specific stimulus that needs to be presented to the subject. The stimulus should be tested well in advance of any study visits, and coordinators should be trained on how to run the stimulus and how to correctly save any recorded data.

- Does your study include pilot scanning time?

Specific studies may be granted pilot time for testing their experiment under certain conditions. Coordinators should notify scanner technologists before their scan whether they are using pilot testing time.

- Do you know what MRI data format your study will need for analysis?

The native data format for the scanner is DICOM, but other data formats are available. It is the coordinators responsibility to make sure that the appropriate data is being exported.

- Are you prepared to make compromises with regards to FOV (Field of View) and/or scan duration?

Sometimes it is necessary to sacrifice scan coverage when a subject's anatomy is too large. Know in advance which areas of the anatomy are to be prioritized. Also, it may be necessary to omit entire scan sequences due to subject and/or schedule related difficulties, so you should also know which scans in your examcard are the most important.

Preparing your subject:

- Do you know the proper procedure for obtaining your subjects consent?

Each project will have its own form and guidelines for obtaining subject consent. The DISC lab does not oversee any projects consenting process, so it is up to you to make sure that you are satisfying the requirements outlined in your IRB.

- Have you reviewed the MRI Safety Screening form with your subject?

Prospective subjects should be screened for MRI safety as soon as possible in order to confirm their suitability for the study. The DISC lab has a standard form that can be provided, and should be filled out prior to any study visit. As a study coordinator you are the "first line of defense" when it comes to subject safety. Be thorough, be strict, and notify the DISC lab of any potential problems as soon as possible.

- Have you informed your subject as to what kinds of things they can expect during the study visit?

In addition to telling the subject what activities they will be participating in during the study visit (tests, tasks, sample collections, etc.), it's often useful to briefly explain what the MRI will be like – what they will see and hear, and what will be expected of them. Try to identify whether the subject is likely to experience anxiety due to claustrophobia or loud noises, and explain the importance of holding still during the scan.

- Have you scheduled a visit to the mock-scanner?

The mock scanner can give anxious and/or "difficult" subjects a chance at exposure to the MRI environment without the cost of actual scanner time. It can be used as a tool to train subjects who have difficulty holding still as well as screen out subjects who will not be suitable for a real scan.

- How will you be training your subject on your fMRI task?

For studies that require training of subjects on a particular task, the subject prep room is set up with a computer that can run your fMRI paradigm. The prep room can be scheduled for your study in the same way as the scanner. You will need to make sure your fMRI paradigm is properly set up to run on the prep room computer.

- Will your subject be accompanied by a guardian?

The DISC lab requires that a guardian be present for scans of underage subjects. The guardian should stay in the subject room while the scan is underway. If their presence in the control room is required for any reason, or they wish to observe during the scan, the guardian will need to complete an MRI safety screening form.

The day of the scan:

- Have you planned for an early arrival for you and your subject?

It's incredibly important that your scan begin on time. Always arrive at least 15min early for your study - most successful studies plan to arrive 30min earlier or more to allow time for subject screening, consenting and training, and to provide a buffer in the event that the subject arrives late due to traffic or getting lost. Make sure your subject has clear directions to the DISC lab, including information on parking if they are driving themselves.

- Do you know the consequences if your study starts late?

If your session does not begin on time it may result in an incomplete data set due to omitted scans and/or additional costs due to an extended scan duration. Repeat offenders may have scanning privileges revoked.

- Do you know where the various rooms and facilities are located around the DISC lab?

At the very least you will need to know where the subject room is located, where lockers can be found for your subject to store their personal belongings, and where the scrub cabinet is located. You may also need to know where the MRI safe eyeglasses are stored and how to use them, where and how to use the mock scanner or other parts of the lab.

- Have you reviewed the subject screening form with the subject?

Always review the screening form at least once on the day of the scan just to be sure that there are no potential safety issues. Subjects might forget to mention something, or they may have had recent surgery since the last time you screened them.

- Has your subject changed into scrubs?

The DISC lab requires that all subjects entering the MRI area be wearing hospital scrubs. This is a safety measure to ensure that they are not wearing clothes that may present a safety risk, or concealing objects which may become safety risks.

- Are you prepared to calm down your subject if they are feeling anxious or fearful?

It should come as no surprise that some people become anxious on the day of their study visit. Be prepared to sooth them as best you can so that you don't lose them as a subject. The technologist on duty will make it clear to any subject expressing uncertainty that the scan is voluntary and that the subject can withdraw at any time.

- Do you know how to set up and run your fMRI experiment?

It's your responsibility to setup for your fMRI experiment, including whatever ancillary devices you need as well as the fMRI paradigm you are presenting to the subject. Most successful studies have checklists that are used by the coordinators to help ensure that nothing is forgotten.

- Is the scanner technologist setting up the scan correctly?

Check with the technologist that the correct examcard is being used for your study. Some studies have multiple examcards, or settings that need to be changed between subjects. Also make sure that the scan field-of-view is set correctly for the area of interest of your study.

- Is the scanner technologist exporting your data in the correct format?

There are several formats that the scan data can be exported in. Make sure the correct format is being exported for you study.

- Have you saved your fMRI data?

It's your responsibility to export/archive any data recorded as part of your fMRI paradigm, eg. subject response data, eye-tracking data, etc.

- Do you know what to do once the scan is complete?

Be prepared to vacate the control room as quickly as possible to allow the next study to begin setting up. Direct your subject to change and collect their belongings in a timely manner and help them vacate the DISC area as well.

After the scan:

- What happens if there is an incidental finding?

If something shows up in the images that indicates clinical follow-up, the images will be reviewed by a radiologist and the project PI will be notified. Usually the PI will then notify the subject and direct them to a doctor for further investigation.

- How are the images retrieved?

The DISC lab uses an online archival tool called XNAT. Anyone wishing to review images should register an account. Accounts are granted access to specific projects once approved by that study's PI.

- How will the data be analyzed?

The DISC lab does not perform data analysis, but we can give direction regarding who to contact for help. Data should be reviewed as quickly as possible in the event that a problem with the images requires that they be re-exported.

- What if the scan data is lost?

Datasets usually stay in the scanner database for about a week, though it can be even less. There have been occasions where the database needed to be completely wiped. The DISC lab retains DICOM datasets of all scans on DVD, with the exception of multi-echo EPI scans due to their extreme size. A fee of \$50 will be applied for any DVD retrieval. For scans where "raw data" is saved, that raw data should be reviewed for any problems immediately since it cannot be backed up.

- What if my fMRI response or ancillary data is lost?

The DISC lab does not perform backups of any data recorded on the FMRI computer. It is the study coordinators responsibility to save and/or archive any recorded data.