Procedures for XS/FS Online Experiments

Joe Ballard*

This Version: January 25, 2021

1 A Few Days before the Session

- Schedule the session on the XS/FS lab calendar and email the lab recruiter (Rivin or Dmitry) to begin recruiting participants
- Create a Zoom meeting for the session using the XS/FS template
  - Be sure that the waiting room and breakout rooms (if necessary) are enabled
  - I recommend using a waiting room message (in Zoom settings under "Customize Waiting Room") that gives participants some information about the check-in process to avoid any possible confusion.
- Use the Zoom email template to create an email with session details and the meeting link
- On the day before the session, double-check ORSEE to ensure that (enough) participants have been recruited

2 Day of the Session

2.1 Starting 1 Hour before the Session

General Tip for Setup: In every session, I run z-Tree unleashed on my desktop and the Zoom meeting on my laptop. I've found that this setup makes it easier to monitor both at the same time. Also, since I allocate almost all of my desktop's available RAM/cores to

*Department of Economics, Florida State University, 113 Collegiate Loop, Tallahassee, FL 32306-2180, USA; E-mail: `jballard@fsu.edu`

running the VM, I prefer to limit the number of applications running on my desktop during the session.

- After sign-up period closes, send Zoom email (via bulk email) to registered participants through ORSEE
- Obtain "Print Version" of subject list in ORSEE, either copy list onto paper or open in PDF editor to more easily number (rename) show-ups during check-in
- Start the Zoom meeting and check important in-meeting settings:
  - Under **Participants**, turn on "Mute Participants upon Entry" and "Enable Waiting Room." Turn off "Allow Participants to Unmute Themselves" and "Allow Participants to Rename Themselves." If desired, also turn on "Play sound when someone joins or leaves."
  - Under **Chat**, Participant Can Chat With "Host Only."
- Connect to FSU server, start VM, and set up the z-Tree session:
  - Make sure zTu settings match what you need for your z-Tree program (e.g., screen resolution, font size)
  - Run "Pre-session" script, then "Start Session" to generate z-Leaf links.
  - Open zTu singlelink in VM browser, log in, and create session using generated z-Leaf links
  - Make sure necessary .ztt and .ztq files are in /share/scratch in VM (easiest to pull files from Dropbox in VM browser)
  - Open .ztt and .ztq files in z-Tree unleashed and double-check parameter/treatment values for session
  - Resize all of .ztt, .ztq, Clients Table, and subjects table windows to avoid scrolling on the main z-Tree experimenter's window (I've had issues trying to scroll back...).
- Generate random integers for bumps (I usually use random.org and draw several integers depending on different numbers of show-ups) and make sure you have a Qualtrics survey (or Google doc, etc.) to obtain payment information (i.e., phone #, username, email for Venmo; mailing address, phone #, email for check) from bumped participant(s)
- Once participants start showing up in the Zoom waiting room, start check-in process:

  - Move one participant from waiting room into meeting, “Rename” that participant to a number, move that participant back into waiting room
  - Repeat this process for all waiting room participants, one-at-a-time (to maintain anonymity among participants), numbering participants in order of check-in (“1”, then “2”, etc.)
  - As I’m checking in participants and renaming them in Zoom, I always make sure to mark their number next to their name on the subject list at the same time, so it’s easier to keep track of any bumps (drops, etc.) later.
  - If you cannot easily identify a participant (e.g., name is different than on subject list), ask for that individual’s FSU ID to verify their registration.
  - Tip: I recommend renaming participants to numbers and placing an ID screen at the beginning of your .ztt file that asks subjects to enter the number to which they were renamed in Zoom. This makes it easier to monitor/nudge and assist particular individuals throughout the course of the experiment. The best window orientation I’ve found in z-Tree consists of aligning the subjects table and Clients Table so the subject’s Zoom ID (the number you assign them), main decision variables, and client number are lined up side-by-side.

- If you are running with another experimenter, be sure to move them from the waiting room into the meeting and change their role to ”Co-Host.”

- About 5 minutes before, I send a message to everyone in the waiting room, something like “Hello, everyone, thank you for showing up to the experiment on time. We’ll get started at [START TIME]. In the meantime, please make sure that you are connected on a laptop, desktop, or other device with a mouse/trackpad and audio capability. You will not be able to interact with the experiment software on a touchscreen. Note also that this session is scheduled to last up to [DURATION IN HOURS/MINUTES], and it is critical that you have a stable internet connection and make decisions in a timely fashion throughout the entire session. The experiment software can only move as quickly as the slowest person, so if you have an unstable connection, you will disrupt the experiment for everyone else. Thus, if you are unable to stay for the full [DURATION] or you have an unstable internet connection, you should not participate in this session.”

- At the experiment start time, lock the Zoom meeting (under **Security** or **Participants**), ensure that all waiting room participants have been checked in, and then move all participants into the meeting.

2.2 During the Session

- Once all participants are in the meeting, wait a few moments for them to Join Audio, then begin any pre-experiment announcements. I prefer to do the beginning announcements/instructions with my camera turned on.
- **Example Pre-Experiment Script [Directions (Not Spoken) in Brackets]:**
  - "Hello, everyone, and thank you for showing up to the experiment on time. Before we get started, there are a few things to go over. First, please be aware that this experiment is scheduled to last up to two hours, and it is very important that you have a stable connection throughout the experiment. If you know that you cannot participate for the entire two hours or you fear that your connection will drop unexpectedly, you should not participate and you should leave the Zoom meeting at this time." [Wait to see if anyone leaves]
  - "Next, I want to draw your attention to the ID number to which you've been renamed in the Zoom meeting. If you open up the Participants list, you will see a list of numbers and a few names. Your ID is the one with the word 'me' in parentheses next to it. If you're not sure what your ID is at this time, don't worry, you will have an opportunity to ask me later."
  - [If there is an incorrect number of participants to run your session, process bumps here.] "Unfortunately, we require an even number of participants to run this experiment, and there is currently an odd number of participants in this meeting. Thus, we will need to choose one of you at random to bump from today's session. If you are randomly chosen, you will still receive your $10 participation payment and receive credit for showing up on time and being willing to participate, but you will not participate in the experiment." [Check random number, bump subject with that ID] "Based on the random draw of my computer, the individual that was renamed to number X has been chosen to be bumped from today's session. Number X, I will now send you a link in the chat to a Qualtrics survey to fill out your contact information so we can send you your payment. Once you receive the link, please send me a message to confirm that you received it" [Send Qualtrics link to bumped subject and wait for confirmation] "Click on that link now and fill out the form. Number X, I will now move you to the waiting room and send you a message with my email, so feel free to contact me if you have any questions." [Move bumped subject to waiting room, send message to waiting room with your email]

  - Tip: If you have to bump one or more participants, ask if they can stick around (in the waiting room) for about 5 minutes while you get started with everyone else. If it turns out that one of the other participants has a bad connection/has to leave for some other reason, you can then easily bring the bumped individual back in (and you won't have to bump *another* person). After 5-10 minutes, if everyone is able to participate with no issues, send a follow-up message to the waiting room to release the bumped individual.
  - "Now that we have an even number of participants, I will send all of you a link in the chat to connect to the experiment. Once you receive the link, click on it and you should be brought to a gray screen with an 'OK' button. Click 'OK' and you will connect to the experiment software. Once you're connected, you should see a screen with a green leaf, a green tree, and some text. Once everyone has connected to the software, I can start the program." [Wait for all participants to show up in Clients Table in z-Tree, make sure the number of subjects is correct in Background, then start the program – Sometimes I repeat the last couple lines a few times if people are slow to connect]
  - [Once z-Tree has started, I track the stages in the Clients Table and narrate what subjects should be seeing, at least for the screens leading up to instructions] "At this time, you should be viewing a screen that asks for your Zoom ID – this is the number that you were renamed in the Zoom meeting. If you are not sure what your ID number is, please ask me in the Zoom chat. Enter your ID and click 'Continue.' Once you have done so, you should see a screen with an Information Sheet. This contains some general information about today's experiment. Once you're done reviewing this information, please click 'Continue' at the bottom of the screen." [Wait for everyone to get through these stages]
  - [If someone else (e.g., David) is reading instructions, turn it over to them] "Now that everyone has entered their IDs and reviewed the Information Sheet, I will now turn it over to David, who will read the instructions for today's experiment." [If you are reading instructions, proceed with your instructions script]

- If you are not reading instructions, now is a good time to monitor subjects (using the Clients Table and subjects table configuration described above) and set up breakout rooms in Zoom (if necessary). If using breakout rooms, set the number of breakout rooms equal to the number of other people in meeting (so everyone but you is assigned to a breakout room). I usually choose to assign them automatically and then exchange participants so their IDs match their breakout room numbers.

  - Under Options for the breakout rooms, check “Automatically move all assigned participants into breakout rooms” and (if desired) “Countdown after closing breakout room” (if checked, set countdown timer low - 10 seconds). Do not allow participants to choose their own rooms or return to main session at any time.
  - Note that a subject in a breakout room cannot hear you/see private messages from you unless you are in the breakout room with them (there is an option to “Broadcast to All Participants”). I tend to bounce around the rooms to keep an eye on things, spending more time in the slowest subjects’ rooms. Try to avoid nudging if possible, but if subjects are absent or otherwise not making decisions in a timely fashion, feel free to verbally nudge and/or send messages to them in their breakout rooms. Tell them they should turn on their cameras once they enter the breakout rooms and use the “Ask for Help” feature or call if they have problems.

- During play, monitor to make sure things run smoothly. If subjects disconnect from Zoom and/or z-Tree, try to get them back in as quickly as possible. This usually means unlocking the Zoom meeting and hoping that they’ll call. If one subject drops and they definitely aren’t returning, announce to all subjects, “A participant has left the session. I will take over their client in the experiment and play a pre-determined, fixed strategy in their place for the remainder of the session.” If this happens, control that z-Leaf and play Tit-for-Tat (or whatever the appropriate fixed strategy is for your setting), but don’t tell subjects what strategy you are playing. If more than one subject drops and doesn’t return, end the session early. Hopefully these things never happen.

- Tip: The main troubleshooting issue I’ve come across during instructions and play of the game is subjects’ cursors disappearing on the screen. A fix for this is restarting that subject’s z-Leaf in zTu. Hopefully they bring it up during instructions if it’s a problem.

- If using breakout rooms, close all breakout rooms at the final results screen and bring everyone back into the main meeting room. Before doing this, I usually Broadcast to All Participants the text message, “I am about to close the breakout rooms. You may now turn off your camera.”

- Walk subjects through the last screens of the .ztt file, then run the .ztq. During the Demographic Questions screen and .ztq screens, I generally say something like this, “If you choose to be paid by Venmo, we’ll need the username and phone number tied to your Venmo account. If you choose to be paid by check, we’ll need the mailing address at which you would like to receive your check. If you choose Venmo, you should receive your payment within 72 hours. If you choose check, you should allow a few additional days (say, a week in total) to receive your check in the mail."

- Once everyone has finished providing contact info and reached last screen in .ztq, "Everyone has finished filling out their contact information, so we have reached the end of the experiment. If you have any questions or feedback, feel free to send me a chat message; otherwise, thanks so much for your participation, and have a great rest of your day!"

2.3 After the Session

- Check to make sure the data files have shown up in share/scratch, then move them to Dropbox.
- Run Terminate script, then clear the session in zTu singlelink, then log out of singlelink, then run Post-Session script.
- Email marked-up subject list to Rivin/Dmitry.