Summary and Rationale
Collecting research data remotely via video chat can make participating less burdensome for families and also enable participants who would not normally be able to visit a research lab to participate in research. The purpose of the Video Chat Language Sample procedure is to get a sample of a child’s spontaneous language at home with a familiar caregiver (most often the parent) and familiar toys, which likely gives a more naturalistic sample. These samples can be transcribed and analyzed in many ways. We also collect a brief prompted language task with stimuli that are shared via screenshare to the family’s computer or mobile device. We record participants’ responses via video chat.

Software Selection
We conduct video chats via a MacBook Pro laptop, so guidelines here are based on that. We use the family’s choice of several video chat platforms to interact with them and share our screen for the task. We use QuickTime Player to create a screen capture of the entire session for later transcription and/or reliability scoring. We have found that Zoom and BlueJeans software both allow for easy screen recording and screen sharing. We have used Skype, FaceTime and Google Hangouts successfully for language sampling, but had a more difficult time getting screen sharing to work smoothly while also recording sessions. The family can use any computer or mobile device that supports their preferred video chat platform. A device that can be easily moved and positioned to allow the child to stay in the video recording frame is ideal.

Procedure
Here, we provide our detailed procedures for scheduling, preparing, conducting the video chat session, and recording the session.

1. Visit scheduling and preparation:
   a. Schedule the video chat via phone when possible to allow parents to ask any questions more easily. Find a time that is convenient for the family to chat from home and when the child is likely to be at their best (e.g., not during typical nap). Discuss the options for video chat platforms and see what the family is comfortable with or prefers. Collect relevant email address or username to connect.
   b. Let the family know that you’ll ask them to play together to get a language sample and give the family ideas of toys to play with together during that time. Some examples of toys you could use include blocks, animals, dolls/figurines and accessories, pretend food and dishes, trucks and cars, or any other favorite toys you can think of. Please avoid electronics if possible.
   c. A couple of days before the scheduled chat, send a confirmation to remind the family of the video chat and to make sure that the previously selected date/time still works for them. It is also helpful to remind parents about toys and location for the video chat. We have found that this is best to do via text since most of our parents are conducting video chats via their cell phones or tablets.


i. “Hi (parent’s name). We are so excited to see you and (child’s name) for your video chat this week. Does (day) at (time) still work for you? Please let me know. We look forward to hearing from you soon! – (Researcher/study name)”

ii. “Great, we’re excited to virtually see you. For this chat, please identify a preferred play room/area in your home. Please make sure that the tv, music, and any other distractions are turned off so that we can hear you.”

d. Once the parent has confirmed, connect with them on the relevant video chat platform.
   i. BlueJeans: set up a meeting via bluejeans.com and email the parent the link to the BlueJeans meeting
   ii. Zoom: set up a meeting via zoom.com and email or text the parent the link to the Zoom meeting
   iii. Skype: send a “chat” to the parent’s username via skype messenger before the video chat, so they know who will be calling them
   iv. FaceTime: obtain mom’s phone number or apple ID email address, whichever will work with facetime, and add her as a contact in your contacts app.
   v. Google hangouts: on the day/time of the video chat, go to google.com/hangouts, start a hangout, and type in the parent’s email address to email her the link to the hangout

2. Setting Up the Video Chat
   a. Begin preparing 20-30 minutes before the scheduled visit time.
   b. Make sure you have the following materials out and ready:
      i. Laptop and charger
      ii. Pencil and paper
      iii. Timer
      iv. SOP/Script
   c. Log into the laptop. Make sure it is plugged in and connected to VPN.
   d. Check Software Updates to make sure that no software or system updates that may interrupt the chat are pending.
   e. Launch the video platform that you will be using for the visit (BlueJeans, Zoom, etc.) to make sure it is running properly and log in.
   f. At the agreed-upon time, send the invitation from the video chat platform.

3. Video Chat – Warm up and consent
   a. Greet parent and child. Say hello, thank them for making time. Make small talk to establish rapport.
   b. Check that they can see and hear you well.
   c. Let the family know that you will first get their consent to participate.
   d. Obtain verbal consent by summarizing the consent form (as approved by your IRB).
   e. Let the family know that you will start recording. Then, briefly explain the rest of the visit.

4. Video Chat – Begin screen recording
   a. Open QuickTime Player.
   b. Click “File” > “New Screen Recording.” A gray bar will appear at the bottom of the computer screen.
c. Ensure that “Record entire screen” is selected (the background of that particular icon is gray) as opposed to “Record selected portion.”

d. Click “Record” (entire screen) and not “capture” (entire screen). “Capture” means that you’re taking a photo, and “record” means that you’re taking a video.

e. Click “Options” and then under “microphone,” make sure that “built in microphone” or “MacBook pro microphone” is selected. If “none” is selected, no audio will record.

f. Click “Record” and wait a few seconds or click to begin. On a mac with touch bar, the recording time will start counting up on the touch bar.

- Note: If you are experiencing some technical difficulties and/or if you have to force quit QuickTime at any point, save the video in 2 parts (i.e. filename_part1 and _part2). If QuickTime stops recording, force quit and start over.

g. On BlueJeans, click the “start recording” button in the top left corner of the screen

h. On Zoom, click the “recording” button in the top left corner of the screen

i. On Skype, click on the 3 vertical dots in the bottom right corner of the screen, and then click “start recording”

5. Procedure for Screensharing

a. If collecting a specific task via screenshare, we typically do that before the language sample, as it is often easier to go from a structured activity to a non-structured activity.

b. Ensure that the window you want to screenshare is “active” (that is, open and up behind your video chat window, not minimized).

c. Screensharing instructions for different platforms are listed below. Note that some of the specifics of instructions may differ slightly based on different versions. Screensharing is not currently supported on FaceTime or Google Hangouts, unless you use a third-party app (not recommended).

  i. **Skype**: In Skype, click on the double window button (bottom right of your Skype window). Click on “Share screen” at the top, and then click “Share application window” from the dropdown menu. Click on the window of the application you want to screenshare, and click “start sharing.”

  ii. **BlueJeans** (using the app, not the web-based version): In BlueJeans, click on the “share screen” button (it is the computer screen icon at the top of the BlueJeans window, between the microphone and end call buttons). Click on the application you want to screenshare.

  iii. **Zoom**: In Zoom, click on the green “share” button at the bottom center of the screen. Click on the application you want to screenshare, then click “share” (bottom right corner).

d. Move the sharing app’s window as needed so you and the family can see it.

 e. Ensure that the participant can still hear you, you can see/hear them, and they can see the application you are sharing.

f. If you’re recording using QuickTime, a little window (showing the participant) will pop up. This will stay up during the screensharing portion, so it is recommended that this window stays open so you can see (and record) the participant as you screenshare (but the participant can’t see it). Just move it somewhere off to the side, so you can see the application and still see the participant.

g. Explain the specific protocol for your task to the family and complete the task.
6. **Language Sample Procedure**
   a. Explain the language sample procedure. “For this last activity, I’d like to ask that you and (child’s name) just play together like you normally would for about 20 minutes. In an effort to not distract you, I’m going to turn my computer screen around, so instead of me you will just see a wall. However, if you do need me for anything, I’ll be right here offscreen. I will let you know when we are done.”
   b. Work with the parent to set their device up so you can see the parent and child, and toys in view.
   c. Ask if the parent has any questions.
   d. Once parent is ready, start the timer for 20 minutes.
   e. During the language sample, if the child is shy or something else occurs that detracts from the play time, increase time accordingly, as our goal is to obtain at least 50 analyzable utterances. It is better to have too much data than not enough so err on the side of caution and increase if needed.
   f. Turn the laptop so that you are out of view. It should face a blank wall or something similarly bland, in an effort to be less distracting.
   g. When the 20 minutes are up, wait until the conversational turn ends before ending the play activity. Turn the laptop back to face you.
   h. Thank the family for their time, answer any questions, and sign off.

7. **Ending the Recording**
   a. Stop the recording. In QuickTime Player, click the stop button at the top right of the screen.
   b. Click on “File,” then “Save.”
   c. Name the video and save the video according to study specifications.

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