In-Person and Online Participation Opportunities for Cochlear Implant Individuals 9 Open Enrollment Experiments

<u>October 21, 2024 – February 1, 2025</u>

You may choose to participate in all experiments (on different days/weeks) or any of the following experiments with open enrollment listed below. A single-day and a multi-day schedule will be provided. Schedule can be customized according to the availability of the participant.

Open Enrollment Experiments for In-Field (In-Person) Experiments

1. Application Testing for In-Field Listening Experience – 2 hours

Open Enrollment Experiments for Traditional In-Lab (In-Person) Experiments

- 2. Primary Speaking Partner (Familiar Speaker) Recordings 1 hour
- 3. Localization of Non-Linguistic Sounds 30 minutes
- 4. CCi-MOBILE Research Platform Testing for Localization 2 hours
- 5. Listening Experiment using Multiple Stimulation Rate with the CCi-MOBILE Research Platform 2 hours

Open Enrollment Experiments for Online (At-Home) Experiments

- 6. Famous Speaker Listening Experiment 1.5 hours
- 7. Assessment Combined Speech Modification and Enhancement Approaches Approx. 2 hours
- 8. Speech De-echoing Listening Experiments Approx. 2 hours

Open Enrollment Experiments for Remote/Virtual (At-Home) Experiments

9. Intelligibility of Speech Modification Sound Coding Strategies – 3 hours

We strongly encourage you to participate in all experiments!

All studies are approved by the Institutional Review Board of The University of Texas at Dallas





Experiment #1: Application Testing for In-Field Listening Experience (In-Field Experiment)

This experiment asks participants to engage in read, prompted speech and naturalistic, spontaneous conversation with the lead investigator (a typical hearing speaking partner). First, the lead investigator will read a set of 10 sentences and as the participant to repeat back what they hear, while providing feedback of the listening experience on a tablet, such as identifiable characteristics about the listening environment (e.g., number of people, acoustics, etc.). Next, participants will engage in conversation speech and be asked to select numerical scores on a rating scale of 1-10 for pleasantness,

intelligibility, loudness, noise. Participants will engage in both read and conversation speech in a single session at a single location. This will be repeated in 4 different locations across the UT-Dallas campus.

Participation

- 2 hours This experiment consists of 4 sessions in various locations across the UT-Dallas campus
- You will be compensated hourly as a result of participation in this experiment

- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>in-person</u> testing time/date
 - o Dr. Juliana Angell (Saba): Juliana.Saba@utdallas.edu
- For questions regarding participation, contact the <u>lead investigator</u>
 - o Taylor Lawson: <u>Taylor.Lawson@utdallas.edu</u>







Experiment #2: Primary Speaking Partner (Familiar Speaker) Recordings (Traditional In-Lab Experiment)

This experiment asks participants who are the primary speaking partner related to a cochlear implant (CI) user. Primary speaking partners can include: spouse, children, translator, in-home care takers, and coworkers. The primary speaking partner will be asked to read standardized sentences (200 sentences) and carry out prompted conversational speech (5-10 minutes) with the cochlear implant user as well as the lead investigator using a recording device.

Participation

- 1-1.5 hours This experiment consists of two sessions
- You will be compensated hourly as a result of participation in this experiment

- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>in-person</u> testing time/date
 - o Dr. Juliana Angell (Saba): <u>Juliana.Saba@utdallas.edu</u>
- For questions regarding participation, contact the lead investigator
 - o Hazem Younis: <u>HazemAmr.Younis@utdallas.edu</u>







Experiment #3: Localization of Non-Linguistic Sounds (Traditional In-Lab Experiment)

This experiment asks participants to identify non-speech sounds, (e.g., animals, human noises, household noises, etc.) sounds while having a conversation with the lead investigator naturally or via provided topics. During the conversation, the participant will be asked to identify the type of sound they heard and the location of the sound using a touchscreen tablet.

Participation

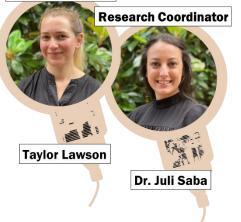
- 30 minutes This experiment consists of three 5-7 minutes sessions
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- Clinical MAPS for use with the CCi-MOBILE Research Platform (requires participant authorization)
 - Pre-registration is required for new CI users so the team can contact your audiologist and receive your clinical MAPS prior to your testing date to ensure our research configuration is the same as your clinical configuration (processor) – A link will be provided from the research coordinator

Contact Information and Enrollment Process

- To participate in this study, contact the research coordinator to schedule your in-person testing time/date
 - o Dr. Juliana Angell (Saba): <u>Juliana.Saba@utdallas.edu</u>
- For questions regarding participation, contact the lead investigator
 - o Taylor Lawson: <u>Taylor.Lawson@utdallas.edu</u>



Lead Investigator







Experiment #4: CCi-MOBILE Research Platform Testing for Localization (Traditional In-Lab Experiment)

This experiment asks participants to identify the location or direction of various words (e.g., cat, dog, rip, etc.) using the CCi-MOBILE Research Platform and their clinical speech processor (2 sessions). Speech will be presented using a mutli-speaker setup as well as direct connect to the participant's implant.

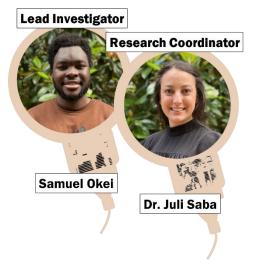
Participation

- 2 hours This experiment consists of 2 sessions
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- Clinical MAPS for use with the CCi-MOBILE Research Platform (requires participant authorization)
 - Pre-registration is required for new CI users so the team can contact your audiologist and receive your clinical MAPS prior to your testing date to ensure our research configuration is the same as your clinical configuration (processor) – A link will be provided from the research coordinator

- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>in-person</u> testing time/date
 Dr. Juliana Angell (Saba): Juliana.Saba@utdallas.edu
- For questions regarding participation, contact the lead investigator
 - o Samuel Okei: <u>Samuel.Okei@utdallas.edu</u>







Experiment #5: Listening Experiment using Multiple Stimulation Rate with the CCi-MOBILE Research Platform (Traditional In-Lab Experiment)

This experiment asks participants to listen to various words and sentences with and without various levels of noise and repeat back the words and phrases. Speech will be presented with the CCi-MOBILE Research Platform.

Participation

- 2 hours
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- Clinical MAPS for use with the CCi-MOBILE Research Platform (requires participant authorization)
 - Pre-registration is required for new CI users so the team can contact your audiologist and receive your clinical MAPS prior to your testing date to ensure our research configuration is the same as your clinical configuration (processor) – A link will be provided from the research coordinator



- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>in-person</u> testing time/date o Dr. Juliana Angell (Saba): <u>Juliana.Saba@utdallas.edu</u>
- For questions regarding participation, contact the <u>lead investigator</u>
 - o Samuel Okei: <u>Samuel.Okei@utdallas.edu</u>





Experiment #6: Famous Speaker Listening Experiment (Online, At-home Experiment)

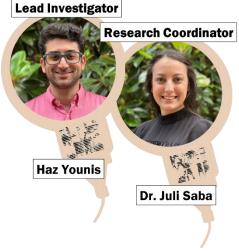
This experiment asks participants to listen and rate on a scale of 1-10 (1: least familiar, 10: most familiar) to various speech samples spoken by familiar, or famous, speakers, (e.g., presidents, politicians, actors, athletes, etc.) and asked to repeat back the words/phrases from the sentences in various levels of background noise. This experiment is self-paced and does not require the presence of the lead investigator.

Participation

- 1.5-2 hours
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- For online/remote experiments: A computer/laptop with internet access
 - If you do not have a computer/laptop, the CILab will provide one for you
 - For those who are not comfortable using a computer/laptop or working online, our research team will set up a virtual, online meeting (via Zoom) to walk you through these steps



- For online/remote experiments: Amazon WorkSpaces Software Client (CCi-Evaluate) Instructions Provided
 - Our research team can set up a virtual, online meeting (via Zoom) to get you familiar with the testing setup Online resources such as step-by-step guides and videos will be provided!

- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>in-person</u> testing time/date
 Dr. Juliana Angell (Saba): <u>Juliana.Saba@utdallas.edu</u>
- For questions regarding participation, contact the lead investigator
 - o Hazem Younis: <u>HazemAmr.Younis@utdallas.edu</u>





Online/Remote Experiment #7: Assessment Combined Speech Modification and Enhancement Approaches (NEW! In-Lab or Online Experiment)

This experiment consists of listening to sentences processed with a combination of algorithms. Each participant will listen to sentences in quiet (noise-free) and in a single noise condition and asked to verbally repeat the words/sentences that were heard (in-person) or type their response in a text box (virtual). There are three distinct tasks in this experiment: (1) listening to sentences and typing/speaking the words heard, (2) rating the speech quality (1-10), and (3) selecting your preference between two sentences processed with various algorithms.

Participation

- 2 hours
- This experiment can be completed online/remotely or in person/in the lab
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- For online/remote experiments: A computer/laptop with internet access
 - If you do not have a computer/laptop, the CILab will provide one for you
 - For those who are not comfortable using a computer/laptop or working online, our research team will set up a virtual, online meeting (via Zoom) to walk you through these steps
- For online/remote experiments: Amazon WorkSpaces Software Client (CCi-Evaluate) – Instructions Provided
 - Our research team can set up a virtual, online meeting (via Zoom) to get you familiar with the testing setup Online resources such as step-by-step guides and videos will be provided!

- To participate in this study, contact the research coordinator to schedule your online or in-person testing time/date
- Dr. Juliana Saba: juliana.saba@utdallas.edu







Online/Remote Experiment #8: Speech De-echoing Listening Experiments (NEW! In-Lab or Online Experiment)

In this experiment, participants will listen to various sentences with and without echo, followed by various methods of echo removal. Participants will also be asked to repeat back the words and phrases they hear (for in-person experiment) or type the words and phrases (for online experiment) and rate both their preference and audio quality. This experiment is self-paced and does not require the presence of the lead investigator.

Participation

- 2 hours
- This experiment can be completed online/remotely or in person/in the lab
- You will be compensated hourly as a result of participation in this experiment

Equipment Required

- For online/remote experiments: A computer/laptop with internet access
 - If you do not have a computer/laptop, the CILab will provide one for you
 - For those who are not comfortable using a computer/laptop or working online, our research team will set up a virtual, online meeting (via Zoom) to walk you through these steps
- For online/remote experiments: Amazon WorkSpaces Software Client (CCi-Evaluate) Instructions Provided
 - Our research team can set up a virtual, online meeting (via Zoom) to get you familiar with the testing setup – Online resources such as step-by-step guides and videos will be provided!

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- Dr. Juliana Saba: juliana.saba@utdallas.edu







Experiment #9: Intelligibility of Speech Modification Sound Coding Strategies (Virtual/Remote Experiment or In-Lab Experiment)

This experiment asks participants to listen to speech (sentences) processed with algorithms that change the way the speech sounds acoustically and electrically. Each participant will listen to sentences in quiet (noise-free) and in a single noise condition and asked to verbally repeat the words/sentences that were heard. The sentences will be streamed directly to the participants RF coil using the CCi-MOBILE Research Platform.

Participation

• 2.5-3 hours – This experiment consists of 20 individual conditions which take between 10-15 minutes each

Equipment Required

- Clinical MAPS for use with the CCi-MOBILE Research Platform (provided)
 - Pre-registration is required for new CI users so the team can contact your audiologist and receive your clinical MAPS prior to your testing date to ensure our research configuration is the same as your clinical configuration (processor)
 A link will be provided from the research coordinator

- To participate in this study, contact the <u>research coordinator</u> to schedule your <u>virtual/remote</u> or in<u>-person</u> testing time/date
 - o Dr. Juliana Angell (Saba): <u>Juliana.Saba@utdallas.edu</u>





