

CCi-MOBILE Research Interface for Cochlear Implant and Hearing-Aid Research Spring 2024 Participation Opportunities

In-Person and Online Participation Opportunities – 5 Open Enrollment Experiments

February 2, 2023 – March 24, 2023

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 Traditional In-Lab (In-Person) Experiments

1. *Localization of Non-Linguistic Sounds – 30 minutes
2. */**Multi-Modal Verification with CCI-MOBILE – Approx. 2-3 hours
3. */**Primary Speaking Partner (Familiar Speaker) Recordings and Intelligibility Assessment – Two Phases (1 hour/1.5-25 hours)

a. **NOTE: This experiment requires CI participant and the participation of a primary speaking partner related to the CI participant**

4. *Wi-Fi- Validation with CCI-MOBILE – Approx. 2.5-3 hours

*Requires participant to authorize a request for clinical MAPS from the audiologist in order to test with the CCI-MOBILE Research Platform

**This experiment can be taken either in-lab or remote/virtually/online

Open Enrollment Experiments for Virtual (Online, At-Home, Self-Paced) Experiments

5. Famous Speaker Intelligibility Assessment

We strongly encourage you to participate in all experiments!

In-Person Experiment #1: Localization of Non-Linguistic Sounds (Traditional In-Lab Experiment)

This experiment asks participants to identify non-linguistic (non-speech) sounds, (e.g., animals, human noises, household noises, etc.) sounds while having a conversation with another person. The participant will sit in the center of a 360° sound booth and will choose a topic of conversation from an array of lifestyle magazines and books. While the topical conversation takes place, the participant will be asked to identify the type of sound they hear play through the speakers and the location of the sound. The participant will interact with a tablet to identify the sound and location.

Participation

- 30 minutes – This experiment consists of three sessions of 5-7 minutes each

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 **lead investigator** to schedule your **in-person** testing time/date
- Taylor Lawson: Taylor.Lawson@utdallas.edu

Lead Investigator



Taylor Lawson

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In-Person Experiment #2: Multi-Modal Verification with CCI-MOBILE (Traditional In-Lab Experiment)

This experiment asks participants to take a three-stage listening experiment in two different modalities: in the sound booth and online through the Cloud-based virtual machine, CCI-Evaluate. The three-stage listening experiment asks cochlear implant listeners to identify everyday sounds, to identify famous or popular speakers, and to listen to speech processed using an enhancement method in quiet and in noise. Each stage takes approximately 15-20 minutes.

Participation

- 2-2.5 hours – This experiment consists of two modalities to be completed in person: investigator-driven (lab) and participant-driven (online)
- This is a two-part experiment: The in-lab portion must be completed at the CILab on the UT-Dallas campus, however, the online portion can either be completed the same day (on campus) or the same day in the home environment. Please let the lead investigator know your preference on part two.

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*

Lead Investigator



Haz Younis

Taylor Lawson

Contact Information

- To participate in this study, contact the **research coordinator** to schedule your **in-person** testing time/date
- Hazem Younis: HazemAmr.Younis@utdallas.edu
- Taylor Lawson: Taylor.Lawson@utdallas.edu

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In-Person Experiment #3: Primary Speaking Partner (Familiar Speaker) Recordings and Intelligibility Assessment (Traditional In-Lab Experiment)

This experiment requires participants with cochlear implants (CI) and their primary speaking partner (can be typical hearing, hearing aid, or cochlear implant user). **Primary speaking partners can include: spouse, children, translator, in-home care takers, and coworkers.** This is a two-phase experiment, where each phase will be scheduled 2-3 weeks apart:

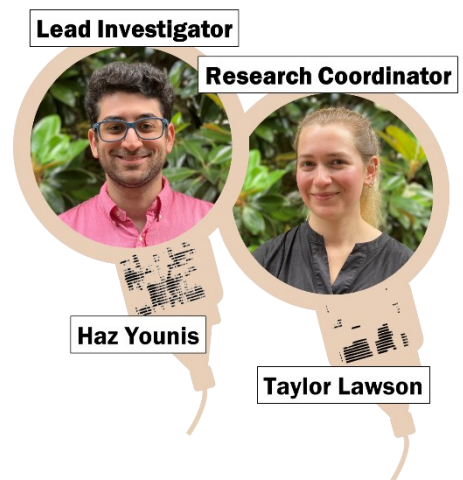
1. **Phase 1:** The primary speaking partner will be asked to read standardized sentences (100-200 sentences) and carry out conversational speech (5-10 minutes) with their cochlear implant partner of the lead investigator (Haz) using a recording device inside the sound booth. These recordings will be used in Phase 2.
2. **Phase 2** (2-3 weeks post-Phase 1): CI participants will complete an intelligibility assessment where CI participants will be asked to listen to various sentences from unfamiliar and their familiar speaking partners with and without various degrees of noise and repeat the words/phrases from the sentences. Participants will also be asked to rate the quality, distortion, and preference of various signals. **This phase can be completed at-home/online or in the lab.**

Participation

- **Phase 1:** 1-1.5 hours (must be completed in-lab)
- **Phase 2:** 1.5-2 hours (can be complete online/at-home or in-lab)
- This is a two-part experiment: Phase 1 must be completed at the CILab on the UT-Dallas campus, however, Phase 2 can either be completed in-lab or online. Please let the lead investigator know your preference.

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

- To participate in this study, contact the **research coordinator** to schedule your **in-person** testing time/date
- Hazem Younis: HazemAmr.Younis@utdallas.edu
- Taylor Lawson: Taylor.Lawson@utdallas.edu

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In-Person Experiment #4: Wi-Fi- Validation with CCI-MOBILE (Traditional In-Lab Experiment)

The experiment involves listening to sentences processed using the CCI-MOBILE Research Platform in various modes: through wired and wireless connections and various locations: in the lab and in a noisy environment (Starbucks on campus). Participants will listen to sentences in both quiet and noise and asked to repeat back the number of words/phrases perceived. The goal of this study is to compare the speech intelligibility in both modes of CCI-MOBILE.

Participation

- 1.5-2 hours

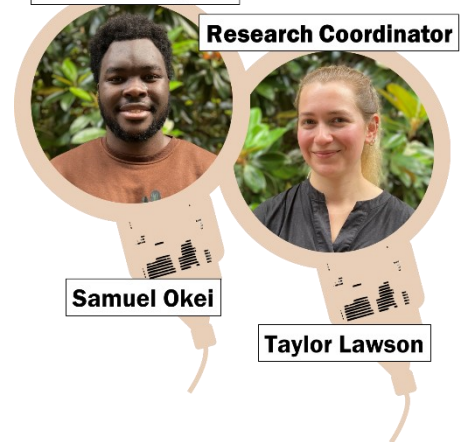
Equipment Required

- 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

- To participate in this study, contact the **research coordinator** to schedule your **in-person** testing time/date
- Taylor Lawson: Taylor.Lawson@utdallas.edu
- Samuel Okei: Samuel.Okei@utdallas.edu

Lead Investigator



Samuel Okei

Taylor Lawson

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Online Experiment #5: Famous Speaker Intelligibility Assessment (Online, At-home Experiment)

This experiment asks participants to listen 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

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!*

Lead Investigator



Research Coordinator

Haz Younis

Taylor Lawson

Contact Information

- To participate in this study, contact the **research coordinator** to schedule your **online** testing time/date
- Hazem Younis: HazemAmr.Younis@utdallas.edu
- Taylor Lawson: Taylor.Lawson@utdallas.edu