

Participate in Research

Decoding speech sounds from nonverbal children



Principal Investigator:

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CONTACT INFORMATION:

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Does your child communicate using sounds and vocalizations?

Consider participating in our research study to develop an assistive technology to understand speech sounds from nonverbal children.

What is this study about?

Existing technologies struggle to understand speech sounds such as moans and grunts made by nonverbal children. We are trying to collect audio, video, and brain data during home interactions with nonverbal children. This will help us develop an assistive technology to decode unintelligible speech sounds for communication.

Who can participate?

To be eligible to participate in the study, you must:

- Be nonverbal,
- Be between 4 and 20 years old,
- Have functional hearing,
- Be able to understand and respond to spoken language (in English) by making sounds or vocalizations,
- Be able to reliably indicate yes / no,
- Have a stable comfortable seating position,
- Be able to wear an electroencephalographic (EEG) headset for at least 1 hour at a time,
- Have a family member / caregiver / friend who can speak, write, and read in English, and has the time and desire to participate in the study,
- Have reliable internet at home.

What's involved?

- **2 Zoom meetings** of 0.5-1 hours:
 - You will answer questions about your background and communication preferences.
 - We will send you a laptop, camera, and an EEG headset. We will train you to set up the equipment to record data at home.
- **Home recording sessions** of 12 hours over 3-6 weeks:
 - You will record audio, video, and brain data during interactions with your child at home. You will be asked to describe the context of the interactions.
 - You can choose 1 hour per day when it is convenient for you to record interactions with your child. You will be asked to record a total of 12 hours of interactions over a period of 3 to 6 weeks.

Potential benefits?

You will not benefit directly by participating, but you will help us develop an assistive technology to decode speech sounds from nonverbal children.

Potential risks?

You may get tired or frustrated during the sessions. You will be able to take breaks and rest if that happens.

Participants will receive a gift card to thank them for their time.