



# RM SYSTEM USE IN THE HOME

## Remote Microphone System Research Study

A remote microphone (RM) system is an assistive listening device that sends your voice to your child's ears even while speaking at a distance. Are you interested in exploring whether your child might benefit from using this technology at home?

We are seeking committed families with a child between the ages of 3 to 6 years old diagnosed with Autism Spectrum Disorder (ASD). Participants will be asked to use RM systems and portable language recorders for two consecutive weekends while at home. Families will be compensated for their time.

Participate in our  
new research study!

Help us understand  
how an RM system  
affects behavior and  
communication in  
the home setting

2-3 visits to our  
Vanderbilt Auditory  
Development Lab  
will be required  
(*Flexible scheduling  
available for all  
sessions*)

## CONTACT US

Please email or call Dr.  
Thompson for additional  
study information.

**EMAIL:**  
emily.c.thompson@  
vanderbilt.edu

**PHONE:**  
860-501-4724

Date of IRB Approval: 01/25/2022

Institutional Review Board



**Principal Investigator:** Emily C. Thompson, Au.D., CCC-A

**Version Date:** 11/01/2021

**Study Title:** RM System Use at Home for Children with ASD: Impact on Language Environment

**Institution/Hospital:** Vanderbilt University Bill Wilkerson Center



Dear Interested Families and Community Members:

My name is Dr. Emily Thompson and I am currently a pediatric research audiologist and Doctor of Philosophy (Ph.D.) student enrolled in Vanderbilt University's Department of Hearing and Speech Sciences. I am conducting a Vanderbilt Bill Wilkerson Center research study under the direction of Dr. Anne Marie Tharpe, faculty advisor and principal investigator of the Auditory Development Laboratory. The purpose of this study is to evaluate how remote microphone (RM) system use at home might affect the language development, communication skills, and observable behavior of child with Autism Spectrum Disorder (ASD) in a natural household setting.

As part of the study, we are recruiting children between the ages of 3-6 years diagnosed with ASD. We hope this information will help pediatric audiologists and other clinical professionals make more informed recommendations about RM use in the home. Your child was identified as a potential candidate for this study. However, your child's participation in this study is completely voluntary. A total of three to four total visits will be involved in this study, but these sessions can be coordinated with other VUMC appointment times or drop-offs/pick-ups at the Preschool for Children with Autism.

To provide an initial overview of study equipment, the parent/guardian that interacts the most and spends the most time with the child will be asked to wear an RM microphone. Leading up to the weekend (Saturday and Sunday) when you and your child will use the RM system and digital language recorders, you will be asked to wear the RM system for several days during that same week, to allow your child to get accustomed to wearing the devices and hearing speech through the RM system. The parent/guardian who will be wearing the RM system and the child will be asked to wear a language recorder as well, for a minimum of ten hours per day at home (in the house and/or backyard) for two consecutive weekends (both Saturday and Sunday; 4 total days).

During the first appointment in our Medical Center East (10th floor) Auditory Development Laboratory, which will take approximately 2 hours, study personnel will complete several different language assessments and cognitive screeners with your child, in addition to a brief hearing evaluation. As the child's primary caregiver, you will be asked to fill out multiple surveys (both paper-based and electronic versions) to gather some basic demographic information and share observations about your child's daily behavior, communication, and medical history. After confirming your child's eligibility to participate in the study, research team members will provide the required study equipment, demonstrate how to use the RM system, and offer the opportunity to practice operating the language recorders together. Appointment two will take approximately 30 minutes each, during which time you will return all equipment and materials from the previous weekend and pick up new materials for the following weekend. This appointment will also serve as a time to share difficulties or questions you have regarding the study. Lastly, appointment three will also take around 30 minutes, during which time you will be asked to complete a caregiver-report survey and questionnaire regarding your family's experience with the RM system. If this information was not already obtained in visit one, study personnel will collect background details about your education, marital status, ethnicity, and child's health/academic history.

During both weekends you will be asked to keep track of your family's daily activities in a log, which will be provided to you. Within the log packet you will be asked to indicate the time each activity was performed, if both caregivers were present, whether or not the RM system was used, and any other pertinent comments. Please aim to complete the log document as each activity is performed at home for all four study days. You will be paid \$75 per weekend with a maximum of \$150 for all completed appointments.

Your decision to participate in this research (or not) has no effect on you or your child's clinical or educational services at the Vanderbilt Bill Wilkerson Center. I will contact you within the next week to answer any questions you might have and to ask whether you are willing to participate in our research. If preferable, you may contact me directly at 860-501-4724 or [emily.c.thompson@vanderbilt.edu](mailto:emily.c.thompson@vanderbilt.edu) to schedule an appointment. Thanks so much for your assistance!

Sincerely,



Emily C. Thompson, Au.D., CCC-A

Department of Hearing & Speech Sciences | Ph.D. Student and Pediatric Research Audiologist

Office of Housing & Residential Experience | Graduate Area Coordinator (Upperclass Division)

Vanderbilt University | [emily.c.thompson@vanderbilt.edu](mailto:emily.c.thompson@vanderbilt.edu)

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