

Catherine T Bush

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Education

University of Tennessee, Knoxville Knoxville, TN
May 1999
Master of Arts, Speech Language Pathology

Tennessee Technological University Cookeville, TN
May 1994
Bachelor of Science, Music Therapy

Clinical & Work Experience

Vanderbilt University Medical Center, Nashville, TN
Speech Language Pathologist IV (SLP)

Biobehavioral Approaches to Neurodevelopmental Disorders, Dr. Tiffany Woynaroski *October 2023 – Present*

- Currently coordinating the Sound Sensitivity Study which investigates decreased sound tolerance in autistic and non-autistic adults
- Coding pre-linguistic communication behaviors for the Sensory Responses in Infants at Risk for ASD Project

Vanderbilt Music Cognition Lab, Dr. Reyna Gordon *April 2014 – September 2023*

- Supported recruitment efforts, participant retention strategies, and overall study visit design for the DP-2 Study Series 2, *Family Games*, and the R01 Study Series 3, *The Timing Study*
- Compiled coding schemes and applied them to data collected during study visits
- Trained personnel to support data acquisition, code behavioral tasks, and complete data entry
- Created procedural lab manuals and REDCap databases
- Managed project IRBs across the lab
- Supervised and mentored lab staff and students administratively and clinically

Vanderbilt University, Nashville, TN
Speech Language Pathologist

Yoder Lab, Dr. Paul Yoder

Impact Study SLP & Project Coordinator September 2014 – August 2019

- Coordinated the Impact Study, a cross-site randomized control trial for baby siblings of children with autism, ages 12 to 18 months
- Screened potential enrollees and organized recruitment efforts utilizing Vanderbilt resources and the community
- Enrolled new participants and administered the Mullen Scales of Early Learning
- Trained and coached parents assigned to the treatment group in the ImPACT curriculum to support their child's development
- Maintained a variety of project-related tasks: supervising research assistants, coding parent training videos, writing manuals, purchasing equipment, and organizing data collection systems

Clear Talk Project SLP & Project Coordinator *February 2012 – June 2014*

- Assisted in coordinating the Clear Talk Project, a research study examining speech therapy intervention in children

with Down syndrome, ages 5 to 12

- Completed screenings and speech-language evaluations for potential enrollees
- Supervised a staff of two speech language pathologists, who provided intervention to participants, and a research assistant, who assisted with on-site procedures and coded language samples
- Managed data entry and data collection schedules as well as coded language samples
- Ensured the project ran smoothly through recruitment efforts and communication with local school districts

Clear Talk SLP

June 2011 – January 2012

- Provided weekly speech therapy for children with Down syndrome enrolled in the Clear Talk Project
- Coded treatment fidelity tapes and interfaced with school personnel to facilitate weekly school visits

EDIS, Educational and Developmental Intervention Services, Fort Bragg, NC

Department of the Army & Magnum Opus Technologies

Speech Language Pathologist

June 2008 – May 2011

- Worked for Educational and Developmental Intervention Services (EDIS) as a contract employee at Womack Army Medical Center
- Worked as part of a team to provide early intervention services to young children, ages birth to three, and their families via a coaching model
- Evaluated children who were referred to EDIS and wrote diagnostic reports and Individualized Family Service Plans
- Conducted Routines Based Interviews and acted as Service Coordinator to children with a broad range of developmental disabilities
- Assisted children and their families once the child turned three years old to transition to the DoD preschool program

Vanderbilt University, Nashville, TN

Yoder Lab, Dr. Paul Yoder

Early Communication Project Research Assistant

November 2007 – July 2008

- Coded videotapes of therapy for treatment fidelity

Early Communication SLP & Project Director

October 2006 – October 2007

- Coordinated the Early Communication Project, a research grant targeting children 18-27 months old with developmental delays
- Supervised two bachelor-level clinicians who provided direct treatment to the children in the study
- Observed weekly treatment sessions, provided clinical feedback, and set treatment goals
- Trained parents in the It Takes Two to Talk curriculum to improve their ability to respond to their child's communication
- Managed two additional staff members who provided assessment and administrative support for the project

Easter Seals, Monterey Peninsula Unified School District, Monterey, CA

Speech Language Pathologist

May 2005 – May 2006

- Worked for the Early Intervention program
- Provided assessment and treatment to children 1 to 3 years old with a variety of diagnosis, including SLI, suspected Autism, and delayed speech
- Worked in conjunction with a Spanish translator to provide bi-lingual assessments and treatment

Easter Seals, North Monterey Unified School District, Monterey CA

Speech Language Pathologist

April 2005 – May 2005

- Provided school-based speech-language services for preschool through 5th grade students

Vanderbilt University Medical Center, Nashville, TN
Child Language Intervention Program, Dr. Steven Camarata

Speech Language Pathologist

June 2001 – December 2004

- Provided speech and language assessments for preschool children referred from community agencies
- Functioned as the lead clinician for a research grant, providing treatment to 3- to 5-year-olds with specific language impairment
- Wrote diagnostic and treatment summary reports and collaborated with local service providers
- Trained and directed research assistants and student workers
- Supervised Masters level speech language pathology students from Vanderbilt University Medical Center

Dickson County Board of Education, Dickson, TN

Speech Language Pathologist

June 2000 – May 2001

- Provided evaluation and treatment services for children attending Head Start
- Tested children K-12 for state-mandated triennial re-evaluations

Speech Language Pathology Clinical Fellowship

August 1999 – May 2000

Trainings

Reciprocal Imitation Training

February 2020

Vanderbilt Advocacy Project

November 2018

ADOS Level One Training

October 2018

Teaching Social Communication to Children with Autism

October 2014

Vital Smarts Crucial Conversations

September 2013

Hanen – It Takes Two to Talk

October 2006

Publications

Fiveash, A., Ladányi, E., Camici, J., Chidiac, K., **Bush, C. T.**, Canette, L. H., Bedoin, N., Gordon, R. L., & Tillmann, B. (2023). Regular rhythmic primes improve sentence repetition in children with developmental language disorder. *NPJ science of learning*, 8(1), 23. <https://doi.org/10.1038/s41539-023-00170-1>

Nitin, R., Gustavson, D.E., Aaron, A.S., Boorum, O.A., **Bush, C.T.**, ... & Gordon, R.L. (2023). Exploring individual differences in musical rhythm and grammar skills in school-aged children with typically developing language. *Sci Rep* 13, 2201. <https://doi.org/10.1038/s41598-022-21902-0>

Gustavson, D. E., Coleman, P. L., Wang, Y., Nitin, R., Petty, L. E., **Bush, C. T.**, Mosing, M. A., Wesseldijk, L. W., Ullén, F., 23 and Me Research Team, Below, J. E., Cox, N. J., & Gordon, R. L. (2023). Exploring the genetics of rhythmic perception and musical engagement in the Vanderbilt Online Musicality Study. *Annals of the New York Academy of Sciences*, 1521(1), 140–154. <https://doi.org/10.1111/nyas.14964>

Walters Jr, C. E., Nitin, R., Margulis, K., Boorum, O., Gustavson, D. E., **Bush, C. T.**, ... & Gordon, R. L. (2020). Automated phenotyping tool for identifying developmental language disorder cases in health systems data (APT-DLD): A new research algorithm for deployment in large-scale electronic health record systems. *Journal of Speech, Language, and Hearing Research*, 63(9), 3019-3035. https://doi.org/10.1044/2020_JSLHR-19-00397

Conference Presentations

Bush, C., Ladanyi, E., Boorum, O., Wang, Y., Woynaroski, T., Lense, M., & Gordon R.L. Family GAMEs – Can a baby’s neural response to rhythm inform us about future language development? Poster presentation at Symposium on Research on Child Language Disorders, Madison, Wisconsin, June 2021 (online participation).

Ladányi, E., **Bush, C.**, Wang, Y., Woynaroski, T. G, Lense, M. D. & Gordon, R. L. (2021, June 3-4). Do parent musicality and rhythm skills and home music environment predict infant vocabulary development? [Poster session]. 41st annual, virtual Symposium on Research in Child Language Disorders (online participation).

Licenses & Memberships

Tennessee State License	<i>Current</i>
Certificate of Clinical Competence	<i>Current</i>
American Speech-Language-Hearing Association	<i>1999 - Present</i>