

Amy T. Neel Department of Speech and Hearing Sciences 3/8/22

Educational History

Ph.D. 5/98 Indiana University, Bloomington, Indiana

Majors: Speech and Hearing Science and Cognitive Science

Dissertation: Factors influencing vowel identification in elderly hearing-impaired listeners

Advisor: Diane Kewley-Port

M.S. 5/84 University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma

Major: Speech Pathology

Thesis: Effects of speech sample type on children's segmental durations

Advisor: Walter Cullinan

B.S. 5/82 Texas Christian University, Fort Worth, Texas

Major: Speech Pathology

Employment History Part I

Associate Professor, 8/08 – present

Department of Speech and Hearing Sciences

University of New Mexico, Albuquerque, NM

Assistant Professor, 8/01 – 7/08

Department of Speech and Hearing Sciences

University of New Mexico, Albuquerque, NM

Assistant Professor, 8/98 – 7/01

Department of Audiology and Speech Sciences

Purdue University, West Lafayette, IN

Associate Instructor/Research Assistant, 8/94 – 8/98

Department of Speech and Hearing Sciences and Department of Psychology

Indiana University, Bloomington, IN

Speech Pathologist, 5/92 - 8/93

RehabCare Corporation, Mainland Center Hospital, Texas City, TX

Research Technician III, 5/91 - 5/92

Stuttering Center Speech Motor Control Laboratory, Department of Neurology,

Baylor College of Medicine, Houston, TX

Speech Pathologist, 9/90 - 5/91

RehabCare Corporation, Mainland Center Hospital, Texas City, TX

Speech Pathologist II, 4/88 - 8/90

Center for Audiology and Speech Pathology,

University of Texas Medical Branch, Galveston, TX

Speech Pathologist I, 6/85 - 3/87
Center for Audiology and Speech Pathology
University of Texas Medical Branch, Galveston, TX

Speech Pathologist, 5/84 - 5/85
Irwin Lehrhoff and Associates, Houston, TX

Employment History Part II

Visiting Erskine Fellow, 7/18 – 10/18
Teaching fellow, University of Canterbury, Christchurch, New Zealand

Visiting Instructor, 6/05 – 8/05
Summer course instructor, Northern Arizona University, Flagstaff, AZ

Professional Recognition, Honors, Etc.

UNM Teacher of the Year Award nominee, 2017, 2010, 2008, 2006
Department of Speech and Hearing Sciences Teacher of the Year Award, 2010
Gunter Starkey Teaching Award nominee, 2006
Young Investigator Travel Award, Committee on Women in Acoustics, Acoustical Society
of America, 2000
NIH Predoctoral Training Grant Fellowship, Speech Research Laboratory, Department of Psychology,
Indiana University, 1994 - 1995
Cognitive Science Summer Research Fellowship, Cognitive Science
Program, Indiana University, 1994
Cognitive Science Fellowship, Cognitive Science Program, Indiana University, 1993 - 1994
Colin Munro MacLeod Research Fellowship, University of Oklahoma Health Sciences Center,
Oklahoma Medical Research Foundation, 1982 - 1984
TCU Senior Scholar in Speech Pathology, Texas Christian University, 1982
Phi Beta Kappa, Delta of Texas Chapter, 1982

Short Narrative Description of Research, Teaching, and Service Interests

As an applied speech scientist, I use perceptual, acoustic, and physiologic research techniques to better understand speech production and speech intelligibility in speakers with a variety of speech disorders and differences. One line of research has focused on the effect of muscle strength on speech production and swallowing in individuals with myopathic disorders. With my department colleague, Phyllis Palmer, I have measured orofacial weakness and its effects on speech and swallowing skills in oculopharyngeal muscular dystrophy (OPMD), a genetic progressive muscle disease that afflicts hundreds of Hispanic New Mexicans (Neel et al., 2015; Palmer et al., 2010; Neel et al., 2006). While loss of tongue strength had minimal impact on speech intelligibility in OPMD, we found that swallowing disorders are related to muscle weakness. We also determined that tongue strength is only weakly correlated with rapid production of speech in healthy adults (Neel & Palmer, 2012). This year, I have begun to study the effects of orofacial muscle weakness on speech production and swallowing on children and adults with Pompe disease, a genetic metabolic myopathy, with Harrison Jones at Duke University School of Medicine. This line of research is important because it facilitates diagnosis and treatment of rare disorders, and because it addresses the efficacy of tongue strengthening exercises in speech-language pathology, a frequent but often mistaken target for treatment of neuromuscular speech disorders.

A second line of research addresses the perceptual and acoustic correlates of speech intelligibility in individuals with Parkinson disease (PD). In investigating a popular speech treatment, I demonstrated that for most participants with PD, loud speech produced greater gains in speech intelligibility than amplification (Neel, 2009). My colleague Yi-Fang Chiu at St. Louis University and I are exploring associations among objective and subjective speech measures in PD, seeking to improve assessment of hypokinetic dysarthria in PD and to guide clinicians in choosing targets for communication intervention. Recently, we showed that listener ratings of ease of speech understanding, which are easy to obtain, predicted sentence transcription scores which are more time-consuming for researchers and clinicians to administer (Chiu & Neel, 2020). We have also found through perceptual and acoustic measures that poor voice quality may be more strongly associated with speech intelligibility deficits in PD than articulation impairments (Chiu, Loux, & Neel, 2020). In seeking to improve assessment of dysarthria in PD, we reported modest relations among subjective listener perceptual ratings of speech (i.e., articulation, phonation, resonance balance, prosody) and objective acoustic measures such as cepstral peak prominence and second formant transitions in vowels (Chiu, Neel, & Loux, 2021). We are currently studying which speech sound errors perceived by listeners are most detrimental to speech intelligibility in noise for speakers with PD.

In collaboration with the Professional Fighters Brain Health Study, headed by Charles Bernick at the Cleveland Clinic Lou Ruvo Center for Brain Health, department colleague Jessica Richardson and I are seeking speech and language biomarkers for early identification of progressive neurological disorders associated with repeated head injury (RHI) in professional fighters. In a recently completed master's thesis (Krasilshchikova, 2020), we found that boxers and mixed martial artists had slower rates of speech and exhibited more pauses and disfluencies while reading a passage aloud than healthy controls. A current master's thesis project focuses on describing speech characteristics associated with RHI using listener perceptual ratings of articulatory precision, voice quality, nasality, prosody, fluency, and ease of understanding. Future planned projects include the assessment of rate and consistency of rapid syllable repetitions as an early biomarker and the correlation of speech measures with imaging data to better understand the neurologic underpinnings of speech deficits associated with RHI.

My teaching interests center on basic science education to prepare undergraduate Speech and Hearing Science students for clinical coursework and practice. I teach Introduction to Phonetics

(SHS/LING 303), where students learn how speech sounds are produced and perceived, how dialect and accent affect speech sound production and perception, and how to transcribe spoken utterances using the International Phonetic Alphabet. I also teach Introduction to Communication Sciences (SHS 330), in which students learn about the physics of sound and acoustics of normal speech as well as acoustic and physiologic techniques for assessing and treating speech disorders. At the graduate level, I teach Motor Speech Disorders (SHS 531), in which students learn how to assess and treat speech deficits associated with neuromuscular disorders such as Parkinson disease, amyotrophic lateral sclerosis, stroke, and traumatic brain injury. Because my teaching portfolio aligns well with my research interests, I am able to demonstrate the relation between academic and clinical aspects of the field for my students. My work in teaching goes beyond UNM classrooms. As Coordinator of the American Speech-Language-Hearing Association Special Interest Group 19 for Speech Science, I have organized and presented online seminars to improve speech science pedagogy including “Teaching Cultural Competence in Speech Science Courses” and “Overcoming Challenges in Teaching Speech Science Online.” I have published two recent articles on teaching speech science, one reviewing how to promote cultural competence in the classroom using characteristics of speech related to culture and language (Neel, 2021) and one on using Slinky toys to facilitate active learning of acoustic concepts (Neel, 2018). In 2018, I taught a course on Motor Speech Disorders at the University of Canterbury in Christchurch, New Zealand as an invited Visiting Erskine Fellow. I work on improving my pedagogy skills every year. This summer, I completed the Center for Teaching and Learning Course Design Institute to enhance my online course offerings during the pandemic. For the last two semesters, I have been an Exploratory Fellow in the Student Experience Project at UNM, working to improve engagement in my basic science courses for undergraduate students.

Regarding national service for my profession, I served as Associate Editor for Speech for the Journal of Speech, Language, and Hearing Research from 2014 through 2016. Currently, I am serving a three-year term as Coordinator of ASHA SIG 19, the special interest group for speech science. As Coordinator, I maintain an online community for more than 500 affiliates, I organize and present professional development opportunities on speech science research, clinical practice, and teaching, and I collaborate with an editorial board to publish speech science articles in the journal “Perspectives of the ASHA Special Interest Groups.”

I have also been extensively involved in university service at UNM. I served as Faculty Athletics Representative to the NCAA for more than five years. In recent years I have also served as President of the Faculty Senate, Chair of the Faculty Senate Undergraduate Committee, and Chair of the Faculty Senate Academic Council. I have been involved in numerous university committees focused on student success including the First Year Steering Committee, Provost’s Committee on Academic Success, and the LoboAchieve Steering Committee. Currently, I am a member of the UNM Basic Needs Security Research project, investigating food and housing insecurity on the UNM campus and working with campus partners to alleviate basic needs insecurity. My primary service for the department has involved chairing the curriculum committee, providing undergraduate advising and mentoring, chairing the comprehensive examination committee for several years, and serving on the Ph.D. proposal committee. As a long-serving faculty member in my department, I work to increase the diversity of our student population through mentorship of undergraduate research volunteers in my lab and by advocating change in the policies and curriculum of our department.

Scholarly Achievements

Articles Published in Refereed Journals

- Crisp, K., **Neel, A.**, Amarasekara, S., Marcus, J., Nichting, G., Korlimarla, A., Kishnani, K., & Jones, H. (2021). Assessment of dysphonia in children with Pompe disease using auditory-perceptual and acoustic/physiologic methods. *Journal of Clinical Medicine*, 10, 3617.
- Chiu, Y. F., **Neel, A.**, & Loux, T. (2021). Exploring the acoustic perceptual relationship of speech in Parkinson's disease. *Journal of Speech, Language, and Hearing Research*, 64, 1560-1570.
- Neel, A.** (2021). Promoting cultural and linguistic competence in speech science courses. *Perspectives of the ASHA Special Interest Groups*, 6, 207-213.
- Chiu, Y. F., **Neel, A.**, & Loux, T. (2020). Acoustic characteristics in relation to intelligibility reduction in noise for speakers with Parkinson's disease. *Clinical Linguistics & Phonetics*, 35, 222-236.
- Chiu, Y.F. & **Neel, A.** (2020). Predicting intelligibility deficits in Parkinson's Disease with perceptual speech ratings. *Journal of Speech, Language, and Hearing Research*, 63, 433-443.
- Neel, A. (2018)**. Slinky speech science, *Perspectives of the ASHA Special Interest Groups 3 (19)*, 4-7.
- Hamooni, H., Abdullah M., and **Neel, A.** (2015). Phoneme sequence recognition via DTW-based classification." *Knowledge and Information Systems*, 1-23.
- Neel, A.**, Boyd, E., Corral, M., & Sanchez, D. (Commentary authors) (2015). Randomized variable practice appears to be effective in the acquisition and generalization of speech sounds in childhood apraxia of speech. *Evidence-Based Communication Assessment and Intervention*, 9, 57-60.
- Neel, A.**, Palmer, P., Sprouls, G., & Morrison, L. (2015). Muscle weakness and speech in oculopharyngeal muscular dystrophy. *Journal of Speech, Language, and Hearing Research*, 58, 1-12.
- Neel, A.**, & Palmer, P. (2012). Is tongue strength an important influence on rate of articulation in diadochokinetic and reading tasks? *Journal of Speech, Language, and Hearing Research*, 55, 235-246.
- Neel, A.** (2010). Using acoustic phonetics in clinical practice. *Perspectives on Speech Science and Orofacial Disorders*, 20, 14 - 24.
- Palmer, P., **Neel, A.**, Sprouls, G., & Morrison, L. (2010). Swallow characteristics in patients with oculopharyngeal muscular dystrophy, *Journal of Speech, Language, and Hearing Research*, 53, 1567-1578.
- Neel, A.** (2009). Effect of loud and amplified speech on sentence and word intelligibility in Parkinson

Disease, *Journal of Speech, Language, and Hearing Research*, 52, 1021-1033.

- Neel, A., Palmer, P., & Gass, C. (2008). Can IOPI be used to measure tongue pressure for speech sounds? , *Journal of Medical Speech-Language Pathology*, 16, 235-241.
- Neel, A. (2008). Vowel space characteristics and vowel identification accuracy. *Journal of Speech, Language, and Hearing Research*, 51, 574-585.
- Neel, A., Palmer, P., Sprouls, G., & Morrison, L. (2006). Tongue strength and speech intelligibility in oculopharyngeal muscular dystrophy. *Journal of Medical Speech-Language Pathology*, 14, 273 – 277.
- Palmer, P., & Neel, A. (2006). Oculopharyngeal muscular dystrophy. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, 16, 17 – 21.
- Palmer, P., McCulloch, T., Jaffe, D., & Neel, A. (2005). Effects of a sour bolus on the intramuscular electromyographic activity of muscles in the submental region, *Dysphagia*, 20, 210-217.
- Neel, A. (2004). Formant detail needed for vowel identification. *Acoustics Research Letters Online*, 5, 125 – 131.
- Kewley-Port, D., Li, X., Zheng, Y., and Neel, A. (1996). Fundamental frequency effects on thresholds for vowel formant discrimination. *Journal of the Acoustical Society of America*, 100, 2562-2570.
- Viswanath, N.S. & Neel, A. (1995). Part-word repetitions by persons who stutter: Fragment type and their articulatory processes. *Journal of Speech and Hearing Research*, 38, 740 – 750.
- Beardsley, A.N. & Cullinan, W. (1987). Speech sample type and children's segmental durations. *Journal of Phonetics*, 15, 29 - 38.

Articles Appearing in Chapters in Edited Volumes

- Kewley-Port, D. & Neel, A. (2006). Perception of dynamic properties of speech: Peripheral and central processes. In S. Greenberg and W. Ainsworth (Eds.) *Listening to Speech: An Auditory Perspective* (pp. 49 – 61). Mahwah, N.J.: Lawrence Erlbaum Associates.
- Strunk, C., Calhoun, K., Beardsley, A.N., & Gary, L. (1990). Communicative aspects of aging. In J.T. Johnson, A. Blitzer, R.H. Ossoff, & J.R. Thomas (Eds.). *Instructional Courses* (pp. 45 - 62). St. Louis: Mosby Year Book.

Other Scholarly Works

- Neel, A. (2008). Book review of Preclinical Speech Science: Anatomy, Physiology, Acoustics, Perception. *Perspectives on Speech Science and Orofacial Disorders*, 18, 48 - 50.
- Kewley-Port, D., & Neel, A. (1998). Relation between discrimination and identification of

English vowels. In *Proceedings of the 16th International Congress on Acoustics and the 1345th Meeting of the Acoustical Society of America* (pg. 2039 – 2040). New York: American Institute of Physics.

Neel, A., Bradlow, A., & Pisoni, D. (1997) Intelligibility of normal speech II: Analysis of transcription errors. In *Research on Spoken Language Perception, Progress Report No. 21* (pg. 421 – 437). Bloomington, Indiana: Speech Research Laboratory, Indiana University.

Works in Progress

Neel, A., Mizusawa, C., Do, Q., & Arenas, R. (2021). Changes in the duration of disfluencies during adaptation. Manuscript under revision.

Neel, A., Kraskilshchikova, S., Richardson, J., Banks, S., Bennett, L., & Bernick, C. (2021). Articulation rate, pauses, and disfluencies in the speech of professional fighters. Manuscript under revision

Neel, A., Crisp, K., Kishnani, P., & Jones, H. (2022). Speech characteristics in children with Pompe disease. Manuscript in preparation.

Invited or Refereed Abstracts and/or Presentations at Professional Meetings

Boucher, K., Cargas, S., Neel, A., & Levine, S. (2022, March). How faculty and staff can help campuses support students with basic needs insecurity. Talk presented at 2022 NASPA Conference (Student Affairs Administrators in Higher Education), Baltimore, MD.

Neel, A., Richardson, J., DeSanctis, J., Bennett, L., Banks, S., & Bernick, C. (2022, March). Auditory-perceptual profiles of speech in professional fighters. Poster presented at Conference on Motor Speech, Charleston, SC.

Neel, A., Crisp, K., Kishnani, P., & Jones, H. Tongue strength, articulation, and resonance in children with Pompe disease (2021, November). Talk presented at the American Speech-Language-Hearing Association Convention, Washington, DC.

Richardson, J., Haley, K., Neel, A., Meese, J., Castellano, N., DeSanctis, J., Coho, E., Cavanaugh, R., & Bennett, L. (2021, November). Fighting for Words: Word Information Measure in Professional Fighters. Digital poster presented at the American Speech-Language-Hearing Association Convention, Washington, DC.

Neel, A. (2021, June). Using browser-based software to teach the acoustic theory of speech production. Lightning talk presented at the Acoustical Society of America Acoustics in Focus Virtual Meeting.

Neel, A. & Cargas, S. (2021, February). What instructors need to know about basic needs insecurity. Invited talk presented at the Student Experience Project Winter Convening.

Neel, A., Shaiman, S., Kisenwether, J., & Lewis, S. (2020, November). Teaching cultural competence

- in basic science courses. Invited webinar presented by ASHA SIG 19 (Special Interest Group for Speech Science).
- Neel, A.** (2020, October). Speech biomarkers of repeated head injury in professional fighters. Invited talk presented at UNM Faculty Lightning Lounge.
- Neel, A., Kleinow, J., Shaiman, S., Lewis, S., Kisenwether, J., & Dembowski, J.** (2020, May). Overcoming challenges in teaching speech science online. Invited webinar presented by ASHA SIG 19 (Special Interest Group for Speech Science).
- Neel, A., Krasilshchikova, S., Richardson, J., Arenas, R., Bennett, L., Banks, S., & Bernick, C.** (2020, February). Speech rate, pausing, and disfluency associated with repeated head impacts in professional fighters. Poster presented at Conference on Motor Speech, Santa Barbara, CA.
- Neel, A. & Behrman, A.** (2019, November). Perceptual & acoustic analysis of Spanish-Accented English vowels. Poster presented at the American Speech-Language-Hearing Association Convention, Orlando, FL.
- Finan, D., Arenas, R., Neel, A., & Tasko, S.** (2019, November). Unleashing the power of Praat analysis: An introduction to scripting. Poster presented at the American Speech-Language-Hearing Association Convention, Orlando, FL.
- Hitchcock, E., Cabbage, K., & Neel, A.** (2019, November). Biofeedback for childhood speech disorders: Practical information for clinicians. Invited webinar presented by ASHA SIG 19 (Special Interest Group for Speech Science).
- Neel, A.** (2018, October). Bigger and stronger is not necessarily better for speech. Invited talk presented at the New Zealand Institute for Language, Brain, and Behavior, Christchurch, New Zealand.
- Neel, A.** (2018, September). Oculopharyngeal muscular dystrophy. Invited talk presented at the Rose Centre for Stroke Recovery and Research, Christchurch, New Zealand.
- Neel, A., & Behrman, A.** (2017, December). Accent management: Focus on comprehensibility. Invited webinar presented by SpeechPathology.com.
- Neel, A., Lowell, S., & Byun, T.** (2017, November). Acoustic technology for clinical assessment and treatment of speech and voice disorders: A hands-on workshop. Invited talk presented at the American Speech-Language-Hearing Association Convention, Los Angeles, CA.
- Behrman, A., & Neel, A.** (2016, November). Accent management: Approaches, evidence, and outcomes. Talk presented at the American Speech-Language-Hearing Association Convention, Philadelphia, PA.
- Finan, D., Tasko, S., & Neel, A.** (2016, November). Strengthening clinical preparation by integrating

- speech science across the curriculum. Invited talk presented at the American Speech-Language-Hearing Association Convention, Philadelphia, PA.
- Neel, A.** (2016, May). Listener profiles for dysarthric and accented speech. Invited talk presented at the Acoustical Society of America, Salt Lake City, UT.
- Neel, A.**, Arenas, R., & Misuzawa, C. (2016, March). Changes in disfluent speech with adaptation in stuttering. Poster presented at the Conference on Motor Speech, Newport Beach, CA.
- Neel, A.**, Ruiz, Y., Precure, M., & Nieman, S. (2015, November). Listener profiles for loud and habitual speech in Parkinson disease. Technical research seminar presented at the American Speech-Language-Hearing Association Convention, Denver, CO.
- Neel, A.**, & Long, E. (2015, November). Listener profiles of accented English speech. Talk presented at the American Speech-Language-Hearing Association Convention.
- Neel, A.** (2014, October). Vowels and intelligibility in dysarthric speech. Invited talk presented at the Acoustical Society of America, Indianapolis, IN.
- Neel, A.** (2014, March). Explanatory test of speech intelligibility. Poster presented at the Conference on Motor Speech, Sarasota, FL.
- Neel, A.**, & Do, Q. (2013, November). Adaptation revisited: An acoustic analysis of disfluencies in repeated readings. Poster presented at the American Speech-Language-Hearing Association Convention, Chicago, IL.
- Finan, D., Tasko, S., Dromey, C., Mandulak, K., & **Neel, A.** (2013, November). Speech science: Does anybody know how to teach this stuff? Seminar presented at the American Speech-Language-Hearing Association Convention, Chicago, IL.
- Neel, A.** (2013, April). OPMD and Speech. Invited talk presented at the OPMD Patient and Family Conference sponsored by the Muscular Dystrophy Association, Albuquerque, NM.
- Neel, A.**, & Palmer, P. (2012, March). The effect of weakness on speech and swallowing in oculopharyngeal muscular dystrophy. Poster presented at the Conference on Motor Speech, Santa Rosa, CA.
- Ewing-Buck, C., & **Neel, A.** (2010, November). Brief intelligibility rating scale. Talk presented at the American Speech-Language-Hearing Convention, Philadelphia, PA.
- Neel, A.**, Palmer, P., Martin, B., & Cunnington, D. (2010, March). Diadochokinetic speech rates and tongue strength. Poster presented at the Conference on Motor Speech, Savannah, GA.
- Neel, A.T.** & Ewing, C. S. (2009, May). Cross-dialect differences in vowel identification. Poster presented at the Acoustical Society of America, Portland, OR.

- Neel, A.T., Palmer, P.M., & Gass, C.A.** (2008, April). Can IOPI be used to measure tongue pressure for speech sounds? Poster presented at the Conference on Motor Speech, Monterey, CA.
- Neel, A.T.** (2007, November). Speech intelligibility and the vowel space: Normal speech. Invited talk presented at the Acoustical Society of America, New Orleans, LA.
- Palmer, P.M. & Neel, A.T.** (2007, November). Speech and swallowing oculopharyngeal muscular dystrophy. Invited talk presented at the OPMD Family Conference sponsored by the Muscular Dystrophy Association, Albuquerque, NM.
- Neel, A.T. & Andruski, J.E.** (2007). Vowel identification and vowel space characteristics. *Journal of the Acoustical Society of America*, 121, 3187.
- Neel, A.T. & Beveridge, A.C.** (2006, November). Identification of loud- and habitual-level vowels in Parkinson disease. Poster presented at the American Speech-Language-Hearing Convention, Miami, FL.
- Neel, A.T., Palmer, P., Sprouls, G., & Morrison, L.** (2006, March) Tongue strength and speech in oculopharyngeal muscular dystrophy. Poster presented at the Conference on Motor Speech, Austin, TX.
- Neel, A.T. & Beveridge, A.C.** (2005, November). Segmental errors in loud and habitual speech in Parkinson disease. Poster presented at the American Speech-Language-Hearing Association Convention, San Diego, CA.
- Palmer, P.M., Neel, A.T., Sprouls, G. S., Romero-Clark, C., & Morrison, L.** (2005, November). Voice, speech, and swallowing characteristics in patients with oculopharyngeal muscular dystrophy. Poster presented at the American Speech-Language-Hearing Association Convention, San Diego, CA.
- Rout, A., Laflen, J.B., Neel, A.T., Long, G.L., & Ricketts, T.A.** (2005 September). The effect of spectral enhancement on speech perception. Presented at the Veterans Administration Biennial International Conference on Geriatric Audiology, Portland , OR .
- Palmer, P.M., Neel, A.T., & Romero-Clark, C.** (2005, October). Speech and Swallowing in Oculopharyngeal Muscular Dystrophy. Invited talk presented at the OPMD Family Conference sponsored by the Muscular Dystrophy Association, Albuquerque, NM.
- Neel, A.T.** (2004, November). Intelligibility of loud and amplified speech in Parkinson Disease. Poster presented at the American Speech-Language-Hearing Association Convention, Philadelphia, PA.
- Rogers, C. L., & Neel, A.T.** (2003, November). Low-cost software for speech science teaching and research. Invited talk presented at the American Speech-Language-Hearing Association Convention, Chicago, IL.

- Neel, A.T.** (2002, March). Speech perception, hearing impairment, and hearing aids. Invited talk presented at the 11th Annual Southwest Conference on Communicative Disorders, Albuquerque, NM.
- Neel, A.T., Krishnan, A., & Collins, K.** (2001). Use of formant movement detail in vowel identification. *Journal of the Acoustical Society of America*, 109, 10.
- Rout, A., Laflen, J.B., **Neel, A.T.**, & Ricketts, T.A. (2000, August). Effects of spectral enhancement on the speech recognition performance of individuals with cochlear hearing loss. Talk presented at the International Hearing Aid Research Conference, Lake Tahoe, CA.
- Neel, A.T. & Rout, A.** (2000). Phoneme recognition before and after hearing aid fitting. *Journal of the Acoustical Society of America*, 107, 2886.
- Neel, A.T.** (2000, March). Immediate and long-term hearing aid benefit: A phonetic analysis. Poster presented at the 12th Annual Convention of the American Academy of Audiology, Chicago, IL.
- Neel, A.T.** (1999). Effects of talker differences on vowel identification. *Journal of the Acoustical Society of America*, 106, 2272.
- Kewley-Port, D. & **Neel, A.T.** (1998). Relation between discrimination and identification of English vowels. *Journal of the Acoustical Society of America*, 103, 2983.
- Neel, A.T.** (1997). Factors affecting vowel identification in hearing-impaired listeners. *Journal of the Acoustical Society of America*, 102, 3095.
- Neel, A.T., & Kewley-Port, D.** (1996). Dynamic cues in vowel identification: A training study. *Journal of the Acoustical Society of America*, 99, 2593.
- Neel, A.T.** (1995). Intelligibility of normal talkers: Error analysis. *Journal of the Acoustical Society of America*, 98, 2982.
- Neel, A.T., & Kewley-Port, D.** (1994). Formant movement and duration cues in the identification of vowels. *Journal of the Acoustical Society of America*, 96, 32
- Kewley-Port, D., Li, X., Zheng, Y., & **Beardsley, A.** (1994). Fundamental frequency effects on thresholds for vowel formant discrimination. *Journal of the Acoustical Society of America*, 95, 2978.
- Viswanath, N.S., **Beardsley, A.N.**, & Rosenfield, D.B. (1992). Intergestural temporal coordination in stutterers under varying speaking conditions. *ASHA*, 34, No. 10, 155.
- Viswanath, N.S., & **Beardsley, A.N.** (1992). Resolution of part-word repetitions by stutterers: A temporal-spectral study. *Journal of the Acoustical Society of America*, 91, 2363.

Beardsley, A.N. & Cullinan, W.L. (1986). Effects of speech sample type on children's segmental durations. *ASHA*, 28, No. 10, 88.

Research

Research Funding

Genzyme Corporation

Pompe Developmental Study (PI Kishnani, K., Duke University)

Subcontract Neel, A. (PI)

7/22 – 6/25, \$74,000

Speech and Language Biomarkers of Repeated Head Trauma in Professional Fighters

Neel, A. (PI), Richardson, J. (co-PI)

Women in STEM Research Seed Award, University of New Mexico

8/18 – 8/19, \$15,000

The Clear Speech Benefit in Spanish-Accented Speakers of American English

Behrman, A. (PI) Neel, A. (consultant)

American Speech-Language-Hearing Research Foundation

1/16 – 12/16, \$1500

Speech and Voice Characteristics of Oculopharyngeal Muscular Dystrophy

Neel, A.T. (PI)

Research Allocations Committee Small Grant, University of New Mexico

11/05 – 09/06, \$3700

Relation between Speech Intelligibility and Loudness in Treatment of Speech Disorders Related to
Parkinson Disease

Neel, A.T. (PI)

Research Allocations Committee Small Grant, University of New Mexico

12/02 – 9/03, \$2580

The Use of Formant Movement in Vowel Identification

Neel, A.T. (PI)

2000 Research Grant in Speech Science, American Speech-Language-Hearing
Foundation/Acoustical Society of America

1/01 – 12/01, \$5000

Speech Sound Recognition Training for New Hearing Aid Users

Neel, A.T. (PI)

Clifford Kinley Trust Award, Purdue University

8/00 – 8/01, \$10,945

Speech Sound Recognition in Elderly First-Time Hearing Aid Users

Neel, A.T. (PI)

Gerontology Program Pilot Grant, Purdue University Gerontology Program

5/00 – 4/01, \$6150

Evaluation of a Speech Recognition Based Noise Reduction Algorithm in Hearing Aid Related

Applications

Neel, A.T. and Rout, A. (co-PIs)
Purdue Research Foundation Research Grant
8/00 – 7/01, \$12,646

Phoneme Recognition Before and After Hearing Aid Fitting
Neel, A.T. (PI)
Purdue University School of Liberal Arts Faculty Incentive Grant
1/00 – 12/00. \$540

Factors in Speech Understanding by Adult Hearing Aid Users
Neel, A.T. (PI)
Purdue Research Foundation Summer Research Grant
5/99 – 8/99, \$5000

Research Funding (not awarded)

Speech and Swallowing Disorders in late onset Pompe disease
Jones, H. (PI), Neel, A. (co-PI)
Amicus Investigator Initiated Program
9/21 – 8/24, \$602,000
Concept proposal under review

Teaching

Doctoral Advisement

Committee Chair

Ayaskanta Rout, "Evaluation of a Speech Recognition Based Noise Reduction Algorithm in Hearing Aid Related Applications", Purdue University, degree awarded 12/05, currently Associate Professor in the Department of Communication Sciences and Disorders at James Madison University, Harrisonburg, VA

Committee Member

Mitchell Sances, degree awarded 1/22, "Seeing is believing: The role of the visual stimulus in cognitive knowledge of sound structure," Department of Linguistics, University of New Mexico.

Carl Tyler Johnson, degree awarded 9/17, "An examination of the relationship between acoustic measures of English prosody and holistic measures of English proficiency in extemporaneous speech of native Chinese speakers of English as a second language," Department of Applied Linguistics, Purdue University, West Lafayette, IN.

Hossein Hamooni, degree awarded 5/17, "Distributed knowledge for diverse data," Department of Computer Science, University of New Mexico.

Annalise Fletcher, degree awarded 9/16, "Predicting therapy outcomes in dysarthria through speech feature analysis," University of Canterbury, Christchurch, New Zealand.

Paul Edmunds, degree awarded 10/09, "ESL speakers production of English lexical stress: The effect of variation in acoustic correlates on perceived intelligibility and nativeness," Department of Linguistics, University of New Mexico.

Masters Advisement

Committee Chair

Sofiya Krasilshchikova, degree awarded 12/20, "Speech characteristics of professional fighters."

Sarah Nieman, degree awarded 7/18, "The effect of voice quality on vowel perception."

Chloe Misuzawa, degree awarded 8/16, "Adaptation revisited: An acoustic analysis of repeated readings in adults who stutter."

Cai Ewing Buck, degree awarded 8/10, "Reliability and agreement of a brief intelligibility rating Task."

Committee Member

Amanda Ortiz-Alvarez, degree awarded 5/20, A phenomenological investigation of the contextual variability and anticipation of stuttering."

Christopher de la Cruz, degree awarded 8/16, “Hypernasal speech analysis via empirical mode decomposition and the Teager-Kaiser energy operator,” Department of Electrical and Computer Engineering, University of New Mexico.

Gwyneth Sprouls, degree awarded 12/08, “Effortful swallow in patients with oculopharyngeal muscular dystrophy.”

Maria Chisholm, degree awarded 5/08, “Effect of tongue piercing on tongue function and swallow pressure.”

Rachel Hines, degree awarded 5/03, “Book reading interactions of New Mexican mother-child dyads from middle SES backgrounds.”

Bachelor’s Honors Thesis Advisement

Committee member for Linda Jaskolski, degree awarded 5/07

Undergraduate Student Mentoring:

Amira Assed, 2016 – 2017, Ronald E. McNair Scholar Program

Yaritza Ruiz, 2014 – 2016, Ronald E. McNair Scholar Program

Quynh Do, 2012 – 2014, Ronald E. McNair Scholar Program, American Speech-Language-Hearing Association Minority Student Leadership Program

Gwyneth Sprouls, 2005 – 2006, Council on Undergraduate Research Posters on the Hill Program, UNM PROFOUND Undergraduate Research program

Classroom Teaching

University of New Mexico

2022, Spring Introduction to Phonetics, SHS/LING 303, n = 44

Introduction to Communication Sciences, SHS 330, n = 45

2021, Fall Sabbatical leave, no courses taught

2021, Spring Introduction to Phonetics, SHS/LING 303, n = 37

Introduction to Communication Sciences, SHS 330, n = 24

2020, Fall Introduction to Communication Sciences, SHS 330, n = 41

Motor Speech Disorders, SHS 531, n = 31

2020, Spring Introduction to Phonetics, SHS/LING 303, n = 76

Introduction to Communication Sciences, SHS 330, n = 31

2019, Fall Introduction to Communication Sciences, SHS 330, n = 28

Motor Speech Disorders, SHS 531, n = 29

2019, Spring Introduction to Phonetics, SHS/LING 303, n = 59

Introduction to Communication Sciences, n = 85

2018, Fall Motor Speech Disorders, SHS 531, n = 29

2018, Spring Introduction to Phonetics, SHS/LING 303, n = 71

2017, Fall Introduction to Communication Sciences, SHS 330, n = 66
 Motor Speech Disorders, SHS 531, n = 32

2017, Spring Introduction to Phonetics, SHS 303, n = 63

2016, Fall Introduction to Communication Sciences, SHS 330, n = 80
 Motor Speech Disorders, SHS 531, n = 26

2016, Spring Introduction to Phonetics, SHS/LING 303, n = 57

2015, Fall Introduction to Communication Sciences, SHS 330, n = 82
 Motor Speech Disorders, SHS 531, n = 15

2015, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 69

2014, Fall Sabbatical Leave, no courses taught

2014, Spring Introduction to Phonetics, SHS/LING 303, n = 70

2013, Fall Introduction to Communication Sciences, SHS 330, n = 75
 Neural Bases of Communication, SHS 450, n = 61

2013, Spring Introduction to Phonetics, SHS/LING 303, n = 77

2012, Fall Motor Speech Disorders and Stuttering, SHS 531, n = 18

2012, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 74
 Introduction to Phonetics, SHS/Ling 303, n = 72

2011, Fall Introduction to Communication Sciences, SHS 330, n = 50
 Motor Speech Disorders and Stuttering, SHS 531, n = 14

2011, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 78
 Introduction to Phonetics, SHS/Ling 303, n = 60

2010, Fall Introduction to Communication Sciences, SHS 330, n = 63
 Motor Speech Disorders and Stuttering, SHS 531, n = 11

2010, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 70
 Introduction to Phonetics, SHS/Ling 303, n = 64

2009, Fall Introduction to Communication Sciences, SHS 330, n = 46
 Motor Speech Disorders and Stuttering, SHS 531, n = 17

2009, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 60
Introduction to Phonetics, SHS/Ling 303, n = 49

2008, Fall Introduction to Communication Sciences, SHS 330, n = 54
Motor Speech Disorders and Stuttering, SHS 531, n = 16

2008, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 64
Introduction to Phonetics, SHS/Ling 303, n = 46

2007, Fall Introduction to Communication Sciences, SHS 330, n = 50
Motor Speech Disorders and Stuttering, SHS 531, n = 24

2007, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 50
English Phonetics, SHS/Ling 303, n = 46

2006, Fall Introduction to Communication Sciences, SHS 330, n = 50
Motor Speech Disorders and Stuttering, SHS 531, n = 22

2006, Spring Anatomy and Physiology of Human Communication, SHS 310, n = 49
English Phonetics, SHS/Ling 303, n = 37

2005, Fall Introduction to Communication Sciences, SHS 330, n = 54
Motor Speech Disorders and Stuttering, SHS 531, n = 34

2005, Spring Anatomy and Physiology of Human Communication, SHS 310/510, n = 55
English Phonetics, SHS/Ling 303, n = 50

2004, Fall Introduction to Communication Sciences, SHS 330, n = 67
Motor Speech Disorders and Stuttering, SHS 531, n = 17

2004, Spring Anatomy and Physiology of Human Communication, SHS 310/510, n = 66
English Phonetics, SHS/Ling 303, n = 46

2003, Fall Research leave – no courses taught

2003, Spring Anatomy and Physiology of Human Communication, SHS 310/510, n = 76

2002, Fall Introduction to Communication Sciences, SHS 451 (330), n = 29
Motor Speech Disorders and Stuttering, SHS 531, n = 24

2002, Spring English Phonetics, SHS/Ling 303, n = 39
Neuromotor Speech/Augmentative and Alternative Communication, SHS 531, n = 10

2001, Fall Phonological Disorders in Children, SHS 428, n = 28

University of Canterbury, Christchurch, New Zealand

2018, Fall Motor Speech Disorders, CMDS 363/673, n = 45

Northern Arizona University

2005, Sum I Neuropathologies of Speech, CSD 551, n = 29

Purdue University

2001, Spring Acoustic Bases of Speech and Hearing, AUS 302, (includes supervision of five lab sections), n = 60

Motor Speech Disorders, AUS 538, n = 20

2000, Fall Anatomy and Physiology of the Speech and Hearing Mechanism, AUS 304, (includes supervision of six lab sections), n = 60

Fundamentals of Speech Production and Perception, AUS 502 (includes supervision of two lab sections), n = 20

1999, Fall Anatomy and Physiology of the Speech and Hearing Mechanism, AUS 304, (includes supervision of six lab sections), n = 71

Fundamentals of Speech Production and Perception, AUS 502 (includes supervision of two lab sections), n = 21

1999, Spring Acoustic Bases of Speech and Hearing, AUS 302, (includes supervision of six lab sections), n = 84

Experimental Phonetics, AUS 606, n = 6

1998, Fall Anatomy and Physiology of the Speech and Hearing Mechanism, AUS 304, (includes supervision of six lab sections), n = 81

Fundamentals of Speech Production and Perception, AUS 502, n = 34

Curriculum Development

Revised SHS 303 (Introduction to Phonetics), SHS 330 (Introduction to Communication Sciences), and SHS 531 (Motor Speech Disorders for remote presentation in Spring, 2020, Fall, 2020 and Spring, 2021).

Revised SHS 531 (Motor Speech Disorders), first taught as separate course from Fluency Disorders in Fall, 2015

Developed SHS 450 (Neural Bases of Speech and Hearing), taught once in Fall, 2013

Revised SHS 531 (Motor Speech and Fluency Disorders), replaced AAC with fluency disorders in Fall, 2002

Developed SHS 531 (Neuromotor Speech/Augmentative and Alternative Communication) in Fall, 2001

Developed SHS 428 (Phonological Disorders in Children), taught once in Fall, 2001

Service

Editorships

Associate Editor for Speech, Journal of Speech, Language, and Hearing Research (2014 – 2016).
Editorial Board Member for Journal of Speech, Language, and Hearing Research (2017 – 2019).
Editorial Board Member, American Speech-Language-Hearing Association Special Interest
Division 5 Perspectives on Speech Science and Orofacial Disorders (2012 – 2014)
Editorial Board Member, American Speech-Language-Hearing Association Perspectives of the Special
Interest Group 19 for Speech Science (2014 – 2019)

Reviewing for journals

Journal of the Acoustical Society of America (2000 – 2012, 2022)
Frontiers in Communication (2021)
Journal of Psycholinguistic Research (2021)
Journal of Oral Rehabilitation (2021)
The Surgery Journal (2019)
Journal of Phonetics (2018, 2011)
Journal of Rehabilitation Research & Development (2016)
American Journal of Speech-Language Pathology (2015)
Journal of Speech, Language, and Hearing Research (1997 - 2019)
Journal of Communication Disorders (2012 - 2014)
Perspectives on Speech Science and Orofacial Disorders (2010 – 2013)
Disability and Rehabilitation (2013)
Neurodegenerative Disease Management (2012)
Folia Phoniatica (2011)
Ear and Hearing (1999)

Reviewing for textbooks

Wolters-Kluwer Health (2014), Reviewer for textbook revision, *Neuroscience for the Study of Communicative Disorders* by Bhatnagar.
Psychology Press (2010), Reviewer for Vowel Disorders book proposal
Wolters-Kluwer Publishing/Lippincott Williams & Wilkins, (2008-2009), Reviewer for textbook manuscript, *Anatomy and Physiology of Human Communication* by Fuller et al.
Wolters-Kluwer Publishing/Lippincott Williams & Wilkins, (2009), Reviewer for two chapters of *Treatment of Stuttering: Established and Emerging Interventions* by Guitar and McCauley
Allyn & Bacon Publishing (2007) Reviewer for proposed textbook, *Anatomy of Human Communication and Its Disorders*.
Wolters-Kluwer Publishing (2006) Reviewer for proposed revisions to *Stuttering: An Integrated Approach to Its Nature and Treatment, 3rd Edition*
Thieme New York Publishing (2006) Reviewer for proposed textbook, *Anatomy and Physiology for Speech, Language, and Hearing*
Allyn & Bacon Publishing (2006) Reviewer for proposed revisions to *Fundamentals of Sound with Applications to Speech and Hearing* and for a proposed book, *The Small Book of Hearing Science*
Lippincott, Williams, & Wilkins Publishing (2005) Reviewer for proposed revisions to *Speech*

Science Primer, 5th Edition

Springer-Verlag Publishing (2000) Reviewer for proposed speech and hearing anatomy text

Reviewing for national funding organizations

American Speech-Language-Hearing Foundation Speech Science Research Grant (2016)

Administrative work with professional societies

Coordinator, American Speech-Language-Hearing Association Special Interest Group 19 for Speech Science (2020 – present)

Associate Coordinator, American Speech-Language-Hearing Association Special Interest Group 19 for Speech Science (2019)

Coordinating Committee Member, American Speech-Language-Hearing Association Special Interest Group 19 (2017-present)

Speech and Language Science Committee American Speech-Language-Hearing Convention (2016 – 2017)

Stetson Scholarship Committee, Acoustical Society of America (2014- 2017)

Mountain West Conference Recognition Committee (2015 – 2016)

Speech Science Committee for American Speech-Language-Hearing Convention (2014)

Motor Speech in Adults and Children Committee for American Speech-Language-Hearing Convention (2010)

Reviewer for LabPhon 12, International Conference on Laboratory Phonology (2010)

Special Award Judge for Intel International Science and Engineering Fair for Acoustical Society of America (2007)

Speech Science Committee for American Speech-Language-Hearing Association Convention (2006)

Committee on Education in Acoustics, Acoustical Society of America (2000 – present)

Tenure external reviewer for Oklahoma State University Department of Communication Disorders (2017)

Tenure external reviewer for Southern Illinois University-Carbondale Rehabilitation Institute (2013)

Administrative Work for University

Exploratory Fellow, Student Experience Project (Fall, 2020 - present)

Basic Needs Solutions Committee (2019 – present)

NCAA Faculty Athletics Representative (2014 – 2020)

Higher Learning Commission Accreditation Criterion 2 Committee Co-chair (2015 – 2019)

Faculty Senate Admissions and Registration Committee (2014 – 2017)

College of Arts and Sciences Sabbatical Review Committee (2015 – 2017)

College of Arts and Sciences Junior Promotion and Tenure Committee (2015)

Commencement and Freshman Convocation Marshal (2011- present)

Past President of Faculty Senate (2013 – 2014)

First Year Steering Committee (2013 – 2014)

Exploratory Committee for College of Population Health (2014)

Exploratory Committee for Institute/School of Public Policy (2013)

Academic Technology Committee (2013)

University Based Retirement Community Committee (2013)

Civil Campus Council (2013)

Tuition and Fee Policy Committee (2013)
CAPS Director Search Committee (2013)
UNM 2020 Strategic Plan (2012 – 2013)
Secretary of UNM Alpha Chapter of the Phi Beta Kappa Honor Society (2011 – 2014)
President of the Faculty Senate (2012 - 2013)
Strategic Budget Leadership Team (2012 – 2013)
RCM/PBB Steering Committee and Institutional Support Subcommittee (2012 – 2013)
Development and Alumni Strategy Committee (2013 - 2014)
UNM Naming Committee (2012 – present)
Instruction Assessment Working Group (2012)
Lobo Reading Experience Selection Committee (2012 – 2013)
LoboAchieve (Starfish) Steering Committee (2012 - 2013)
Foundations of Excellence Steering Committee (2012 – 2013)
Foundations of Excellence Faculty Dimension Co-Chair (2012 – 2013)
Inauguration Symposia Committee Chair (2012)
President-Elect of the Faculty Senate (2011- 2012)
Co-Chair of Tuition and Fee Team (2011- 2012)
University Council on Academic Priorities (2011 - 2012)
Provost's Committee on Academic Success (2011 - 2013)
Chair of Faculty Senate Academic Council (2010 – 2012)
Selection Committee for Head Football Coach (2011)
Search Committee for Director of University Advising (2011)
Faculty Senate Operations Committee (2010 – present)
Chair of Faculty Senate Undergraduate Committee (2009 – 2011)
President of UNM Alpha Chapter of the Phi Beta Kappa Honor Society (2009 – 2011)
Provost's Core Curriculum Task Force (2010 – 2011)
Provost's Committee on Advising (2010 – 2011)
Student Advising Council (2010 – 2011)
Core Curriculum Task Force (2009 – 2010)
Multi-term Scheduling and Enrollment Committee (2009-2010)
Faculty Senate Undergraduate Committee (2008 – 2009)
College of Arts and Sciences Undergraduate Committee (2003 – 2010)
Phi Beta Kappa candidate review (2006-2008)
PROFOUND Undergraduate Research Symposium Judge (2006)
College of Arts and Sciences Scholarship Committee (2004)

Administrative Work for Department

Non-degree Student Advisor (2019 – present)
Undergraduate Advisor (2003 – present)
Chair of Curriculum Committee (2008 – present)
Ph.D. Proposal Committee (2017 – present)
Chair of Lecturer Search Committee (2019)
Assistant Professor Search Committee (2018)
Chair of Audiology Lecturer II Search Committee (2018)
Chair of Comprehensive Examination Committee (2015 – 2020)
Co-chair of Curriculum Revision Working Group (2016 – 2017)

Lecturer II Search Committee (2016)
Faculty Search Committee (2013)
Business Plan Committee (2011 – 2013)
Chair of Audiology Lecturer Position Search Committee (2007)
Curriculum Committee (2007)
Department Webmaster (2002 – 2009)
Library Liaison (2001-2008)
Chair of Curriculum Revision Committee (2001-2002)
Public Information Committee (2001 – 2002)