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Curriculum Vitae

Marcy Kay Lau

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Education

Doctor of Philosophy (Ph.D.) 2017
Communication Sciences and Disorders
Texas Tech University Health Sciences Center, Lubbock, TX

Doctorate of Audiology (Au.D.) 2012
Texas Tech University Health Sciences Center, Lubbock, TX

Bachelor of Science (B.S.) 2007
Speech-Language Pathology and Audiology
University of Texas at Dallas, Richardson, TX

Professional Experience

Assistant Professor *East Tennessee State University* *Johnson City, TN*
August 2017 – Present

Clinical Audiologist/Supervisor *East Tennessee State University* *Johnson City, TN*
August 2017 – Present

Assistant Professor *Texas Tech University Health Sciences Center* *Lubbock, TX*
August 2016 – July 2017

Clinical Supervisor *Texas Tech University Health Sciences Center* *Lubbock, TX*
August 2013 – July 2017

Educational Audiologist *Texas Tech University Health Sciences Center* *Lubbock, TX*
August 2012 – May 2017

Clinical Audiologist *University Medical Center, PM&R Dept* *Lubbock, TX*
February 2013 – August 2016

Graduate Teaching Assistant *Texas Tech University Health Sciences Center* *Lubbock, TX*
August 2008 – August 2016

Research

Ph.D. Dissertation Research Project 2016
Objective vs Subjective Measures of Listening Effort in a Normal Hearing Population

Listening effort has traditionally been measured using subjective rating scales and dual task paradigms. More objective measures of listening effort have utilized pupil dilation and heart rate. Using a combination of objective and subjective measures of listening effort, this study aimed to identify changes in listening effort during two auditory tasks: AzBio sentences repetition and NU-6 words

repetition, across three listening conditions: in quiet, at +6 dB signal-to-noise ratio (SNR), and at 0 dB SNR. Results indicated a significant difference in percent accuracy, subjective rating, and max pupil dilation across both tasks and the three conditions. Overall, this indicates that objective measures, such as the Tobii X2-60 eye tracker pupillometry data, and subjective measures can be used to accurately measure differences in listening effort for individuals with normal hearing.

Ph.D. Pre-Dissertation Research Project 2014

Measurement of Neural Characteristic Frequency as a Function of Electrode Position in a Cochlear Implant Population

Given the limited space within the cochlea, frequency allocation tables may be mismatched to the underlying neural characteristic frequency. To determine if changes to the allocation table would impact user performance, adult CI users were fit with only one electrode activated, and the frequency allocation table was set to one of three conditions: the estimated characteristic frequency (eCF), 40% above the estimated characteristic frequency (eCF +40), or 40% below the estimated characteristic frequency (eCF -40). For each condition, users were asked to complete two tasks: a notch-noise paradigm and an amplitude modulation detection (MDT) task. Results indicated that CI users can tell a difference in frequency allocation for one electrode in a notch-noise task. Differences in participant responses could indicate that there is a "best" frequency for each electrode.

Au.D. Student Research Project 2012

Differences in Listening Effort as a Function of the Language of the Competing Speech

Using a dual task paradigm, listening effort was measured in normal hearing adults to determine if the language of background babble would have an effect on performance or effort during a word recognition task. Results indicated that the level (SNR) of the babble significantly affected both performance and effort, however the language of the babble had no effect.

Teaching Experience

CDIS 6300	Rehab Audiology for Children	2018 – present
CDIS 6100	Instrumentation	2017 – present
CDIS 6180	Pediatric Audiology	2017 – present
CDIS 6250	Audiology Clinic	2017 – present
HPSH 7150	Pediatric Audiology Lab	2013 – 2017
HPSH 4280/4290	Clinical Practicum Lab	2013 – 2017
HPSH 7257	Advanced Amplification	2016
HPSH 5143	Aural Rehabilitation Lab	2012 - 2016
HPSH 5344	Basics of Audiology	2010, 2014 - 2016
AHSL 5345	Aural Habilitation	2013, 2014
AHSL 3219	Supervised Observation Lab	2012
AHSL 7446/4446	Diagnostic Audiology Lab	2009, 2010
AHSL 3442	Clinical Audiology Lab	2009, 2010

Publications

Lau, M., Hicks, C., Kroll, T. & Zupancic, S. (n.d.) *Effect of Auditory Task Type on Objective and Subjective Measures of Listening Effort in Individuals with Normal Hearing.* Manuscript under review at Journal of Speech, Language, and Hearing Research.

Kroll, T., Trindade, A.A., Asikis, A., Salas, M., Lau, M., Saenz, C., Head, M., Prematilake, C. and Perry, C. (n.d.) *The DUT task: a novel experimental paradigm to investigate the variability of eye movements in whole-text reading for meaning*. Manuscript under review at Journal of Research Design and Statistics in Linguistics and Communication Science.

Gustafson, T. J. S., Hicks, C. B., & Lau, M. (2014). The Functional Listening Evaluation: Exploring How Audiologists Implement the FLE for Classroom Enhancement. *Advance for Speech and Hearing*. Retrieved from http://speech-language-pathology-audiology.advanceweb.com/Hearing-Practice-Management/Features/Articles/The-Functional-Listening-Evaluation.aspx

Peer Reviewed Presentations

Lau, M. (2017). *Objective versus Subjective Measures of Listening Effort in Normal Hearing Listeners.* Presentation at the annual convention for the Texas Speech-Language-Hearing Association. Austin, TX.

Gunduz, S. & Lau, M. (2017). *Cultural Competency in Clinical Decision Making for SLP and AuD Practitioners.* Presentation at the annual convention for the Texas Speech-Language-Hearing Association. Austin, TX.

Lau, M. (2016). *Could the Natural Characteristic Frequency of the Auditory Nerve have Implications for Mapping?* Presentation at the annual convention for the Texas Speech-Language-Hearing Association. Fort Worth, TX.

Lau, M., Hicks, C., Zupancic, S., & Paschall, D. (2015). *Measurement of Neural Characteristic Frequency as a Function of Electrode Position in a Cochlear Implant Population.* Poster presentation at annual convention for the American Speech-Language-Hearing Association. Denver, CO.

Lau, M., Hicks, C., Zupancic, S., & Paschall, D. (2015). *Measurement of Neural Characteristic Frequency as a Function of Electrode Position in a Cochlear Implant Population.* Poster presentation at annual convention for the American Academy of Audiology. San Antonio, TX.

Gustafson, T., Hicks, C., Lau, M., & Rodriguez, A. (2014). *Exploring the Functionality of a Functional Listening Evaluation*. Presentation at the Texas Speech and Hearing Association (TSHA) Convention. Houston, Texas.

Invited Presentations

Lau, M. (2014). Pre-dissertation Research Proposal Presentation. Texas Tech University Health Sciences, Center Department of Speech, Language and Hearing Sciences, AuD/PhD Student Research Short Seminar, April 25.

Funded Grants

School of Health Professions Seed Grant *January, 2017*
Texas Tech University Health Sciences Center Amount: $4700
Listening Effort in Adolescents: A Comparison of Subjective and Objective Measures

Lear Ashmore Research Endowment Fund *February, 2014*
Texas Speech and Hearing Foundation Amount: $620
Measurement of Neural Characteristic Frequency as a Function of Electrode Position in a Cochlear Implant Population.

Student Research

Au.D. Capstone Project, Chair
Comparison between eye tracking methods to assess listening effort in children

Lucia Menozi, B.S.
Anticipated completion: May, 2019

Au.D. Capstone Project, Committee Member
Public Knowledge of Differences between Hearing Instrument Specialists and Audiologists
Brandy Davenport, B.S.
Anticipated completion: May, 2018

Objective and Subjective Measures of Listening Effort in Adolescents with Normal Hearing
Ashley Zamarripa, B.S.
Anticipated completion: May, 2018

Objective and Subjective Measures of Listening Effort in a Simulated Unilateral Hearing Loss
Marlee DeMots, B.S.
May, 2016

Perceptual Differences between Bimodal Fittings and Bilateral Cochlear Implants
Rebecca Budnick, B.S.
May, 2016

Domains of Speech and the Right Hemisphere
Amanda Casillo, B.S.
May, 2015

The Projected Need and Benefit of a Mobile Tele-Audiology Program in Sub-Saharan Africa
Cailin Loyd, B.S.
May, 2015

Passive Amplification: Utilizing a Libby Horn Resonator
Kayla Golliher, B.S.
May, 2014

Honors and Awards

Larry Higdon Scholarship, Texas Speech-Language-Hearing Foundation, 2017

TTUHSC Student Research Week, Poster competition: First place, School of Health Professions Division, March 2016. Lau, M. (2016). *Pupil Dilation as a Measure of Listening Effort in Individuals with Normal Hearing.*

TTUHSC Student Research Week, Poster competition: First place, School of Allied Health Division, March 2015. Lau, M., Hicks, C., Zupancic, S., & Paschall, D. (2015). *Measurement of Neural Characteristic Frequency as a Function of Electrode Position in a Cochlear Implant Population.*

TTUHSC Mary Sowell Scholarship for Allied Health, 2014-2015

TTUHSC Mary McKelvy Scholarship for Allied Health, 2010-2011

TTUHSC AMBUCS National Scholarship, 2009-2010

TTUHSC Allensworth Scholarship, 2008-2009

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License/Certifications

Tennessee Board of Communication Disorders and Sciences Audiology License	2017 - Present
ASHA Certificate of Clinical Competence (CCC-A)	2012 - Present

Professional Membership

Member of the American Speech-Language and Hearing Association	2012 – Present
Fellow of the American Academy of Audiology	2012 – Present

Professional Continuing Education

Appalachian Spring Conference, 2018	Johnson City, TN
Breaking the Sound Barrier Conference, 2017	Bristol, VA
Texas Speech and Hearing Association Conference, 2017	Austin, TX
Texas Speech and Hearing Association Conference, 2016	Fort Worth, TX
American Speech-Language-Hearing Association Conference, 2015	Denver, CO
AudiologyNOW, 2015	San Antonio, TX
Texas Speech and Hearing Association Conference, 2014	Houston, TX
AudiologyNOW, 2013	Anaheim, CA
AudiologyNOW, 2012	Boston, MA

Professional Service

ETSU IPE Committee, Standardized Patient Coordination, Representative	2018 - Present
ETSU ASL Minor Program Development	2017 - Present
ETSU Audiology Clinic Committee; Chair	2017 – Present
ETSU Faculty and Student Awards Committee; Member	2017 – Present
ETSU Faculty Development Committee, Member	2017 – Present
ETSU University Library Advisory Council; Member	2017 – Present
TTUHSC Audiology Program, Comprehensive Exam Committee; Member	2016 – 2017

Community Service

Life Spring Farms Non-Profit Organization; Board Member	July 2015 - Present
Alstrom's Angels Beepball Tournament; Volunteer	July, 2015
Camp Amistad; Volunteer	June, 2015