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APPENDIX A. 2012 EXTERNAL FUNDING IN SLHS BY FUNDING TYPE

Research Grants

Grant Type	Sponsor	PI	Title	Total Award
R01	NIH/NIDCD subcontract	Alt	Working Memory and Word Learning in Children with Typical Development and Language, 2011-16	\$697,000
R01	NIH/NIDCD	Beeson	Developing an Evidence-Based Treatment Continuum for Spoken and Written Language, 2011-16	\$ 2,042,938
Research	Assoc of Univ Centers on Disability	Cone	Innovations in Electrophysiologic Assessment of Infant Hearing, 2010-12	\$192,308
R01	NIH/NIDCD	Hoit Bunton	Velopharyngeal Function During Oral Sound Production in Healthy Children, 2010-15	\$1,532,156
Research	NSF	Lotto	Collaborative Research: Learning Complex Auditory Categories, 2008-2012	\$149,980
R01	NIH/NIDCD subcontract (Arizona State)	Lotto	Perception of Dysarthric Speech: Research Supplement to Promote Diversity in Health-Related Research, 2010-15	\$317,238
R01	DHHS subcontract (U. Texas)	Lotto	Auditory and Cognitive Factors in Speech Perception and Category Learning 2009-12	\$123,427
R01	DHHS subcontract (Carnegie Mellon)	Lotto	Formation and Tuning of Complex Auditory Categories, 2011-16	\$933,981
R01	NIH/NIDCD	Plante	Imaging Learning in Developmental Language Disorders, 2011-15	\$2,066,318
Research	US DOE subcontract (Western Michigan)	Plante	Test of Integrated Language and Literacy Skills (TILLS) Validation Research, 2010-15	\$216,981
Research	NSF	Story Bunton	A Model of Sound Production in Children	\$445,626
R01	NIH/NIDCD	Story Bunton	An Acoustic Model of Child-Like Speech, 2011-2016	\$1,587,310
R03	NIH/NIDCD	Wilson	Functional Neuroimaging of Language Processing in Primary Progressive Aphasia, 2010-13	\$359,547
Total				\$10,664,810

Career Development Awards

K01	NIH/NIDCD	Maas	Psycholinguistic Investigations of Development and Disorders of Speech Production, 2010-15	\$688,784
K23	NIH/NIDCD	DeDe	Sentence Comprehension Impairments in Aphasia 2011-2016	\$868,431
K24	NIH/NIDCD	Cone	Electrophysiology of Infant Speech Perception, 2007-12	\$693,250
Total				\$2,250,465

APPENDIX A. (continued) 2012 EXTERNAL FUNDING IN SLHS BY FUNDING TYPE

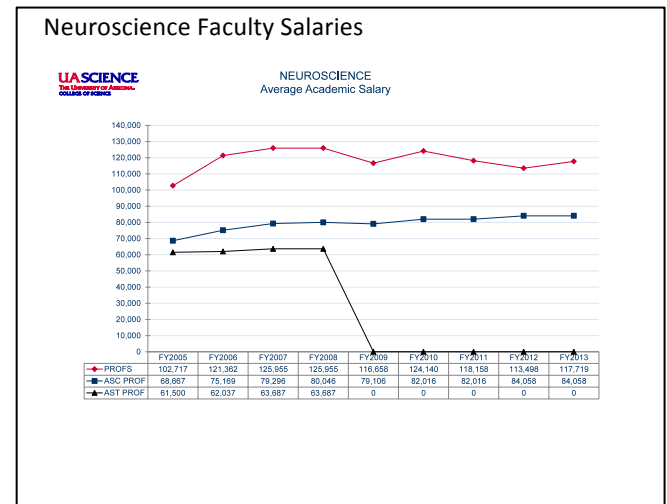
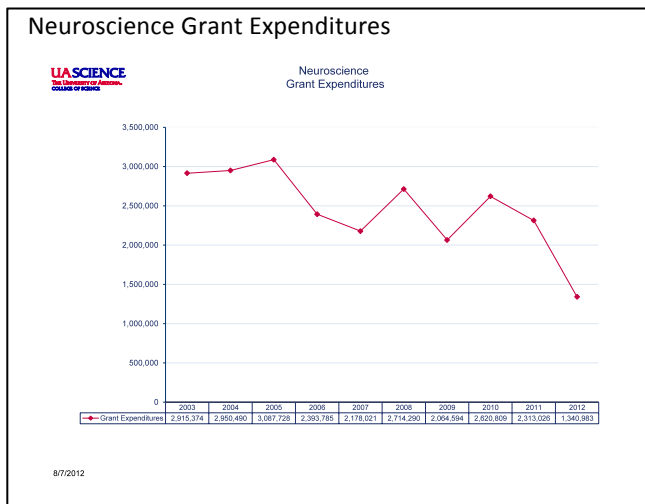
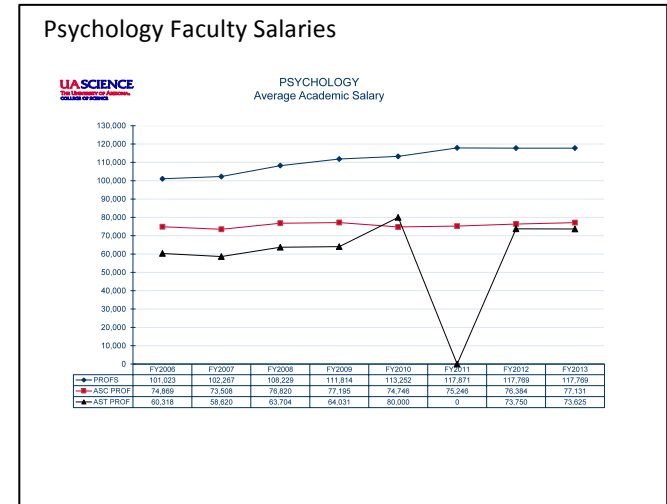
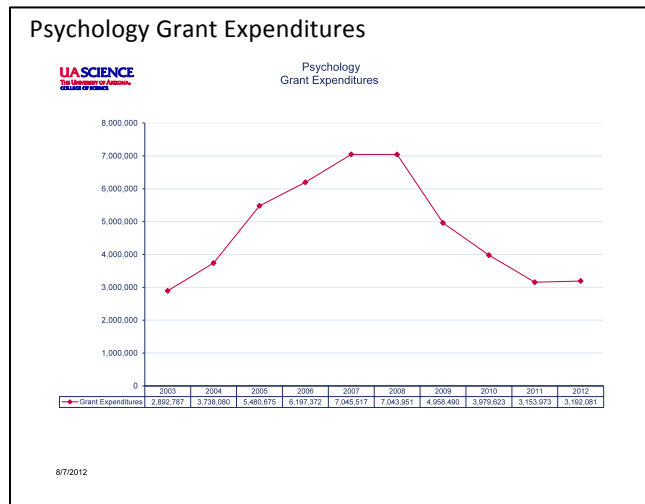
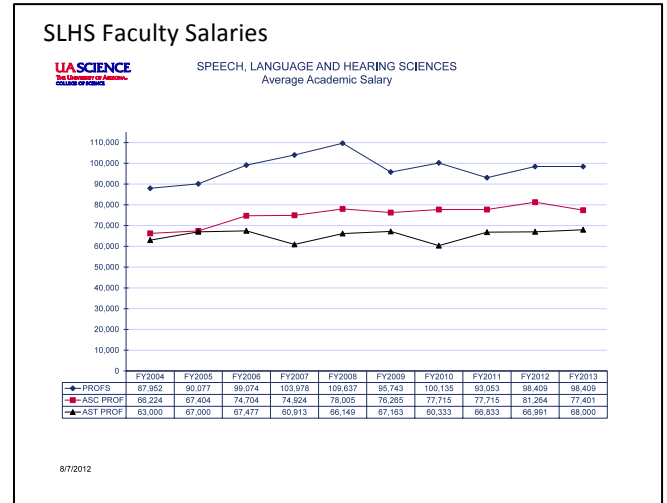
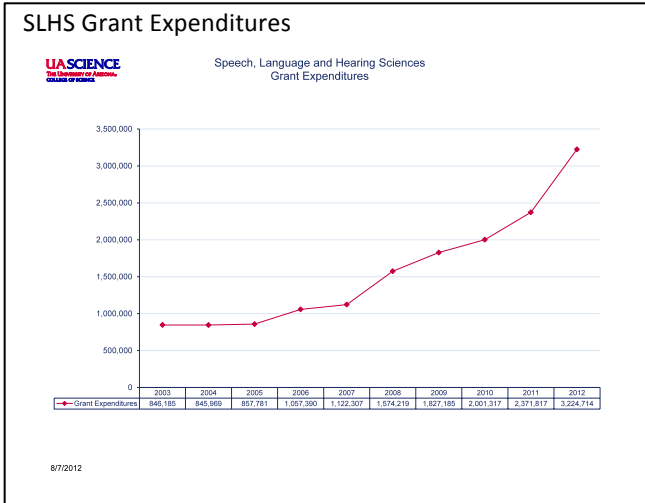
Training Grants

T-32	NIH/NIDCD	Cone/ Plante	Developing Clinical Investigators in Audiology and Speech-Language Pathology, 2008-13	\$948,664
T-35 subcontract	NIDCD (Vanderbilt)	Cone	Developing Research Careers in the Hearing Sciences	\$3,966
Total				\$952,630

Other

Industry	IntriCon Corporation	Marrone	Simplified Procedures for Estimating Hearing Thresholds	\$12,196
State	AZ First Things First	Kiernan	Language and Communication Development	\$369,989
UA	UA VPR	Fabiano-Smith	Initial Consonant Deletion in Bilingual Speech: Difference or Disorder?	9,135
UA	UA VPR	Wilson	Neural Correlates of Recovery from Vascular Aphasia	9,977
Total				\$401,297

**APPENDIX B: COMPARISON OF GRANT EXPENDITURES AND FACULTY SALARIES:
UA Departments of SLHS, Psychology, and Neuroscience**



APPENDIX C. FACULTY EMPLOYMENT HISTORY (T = Tenure Eligible; T+ = Tenured; C = Continuing status; **BOLD** = tenure-track)

Faculty Name	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Alt, Mary	Adjunct Lecturer	Asst. Prof, TE	Asst. Prof, TE	Asst. Prof, TE	Asst. Prof, TE	Asst. Prof, TE	Asst. Prof, TE	Assoc.Prof, T+
Barkmeier-Kraemer, Julie	Assoc. Prof, T+	Assoc. Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+ Vol. Resignation 7/01/2011		
Bayles, Kathryn	Professor, T+ Retired 06/05/06							
Beeson, Pélagie M.	Assoc. Prof, TE	Assoc. Prof, TE	Assoc. Prof, T+	Assoc. Prof, T+	Professor, T+	Professor, T+	Professor, T+ Dept.Head	
Bunton, Kate	Res.Sci., NCNCD	Asst.Res.Sci.	Asst.Res.Sci.	Asst.Res.Sci.	Lecturer/Assoc Prof TE 1/10	Assoc.Prof, TE	Assoc.Prof, TE	
Christensen, Thomas	Res.Sci, Neurob, Cont	Res.Sci., Neurob, Cont	Rontes.Sci., Neurob, Cont	Res.Sci., Neurob, Cont	Res.Sci., Neurob, Cont	Res.Sci, Neurob, Cont	Res.Sci, Neurob, Cont	
Cone, Barbara	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Professor, T+	Professor, T+	Professor, T+	Professor, T+	
Dai, Haunping			Assoc.Prof, TE	Assoc.Prof, TE	Assoc.Prof, TE	Assoc.Prof, TE	Assoc.Prof, TE	
DeDe, Gayle			Asst Prof, TE 1/2008	Asst Prof, TE	Asst Prof, TE	Asst Prof, TE	Asst Prof, TE	
Fabiano-Smith, Leah						Asst Prof, TE	Asst Prof, TE	
Finn, Patrick	Assoc.Prof, TE	Assoc. Prof, TE Ten not granted Resign 6/03/2007						
Glattke, Ted	Professor, T+	Professor, T+	Professor, T+ Retired 1/01/2008	Prof Emeritus	Prof Emeritus	Prof Emeritus	Prof Emeritus	
Hixon, Thomas	Professor, T+ Assoc. Dean	Professor, T+ Assoc. Dean	Professor, T+ Retired 7/01/2008	Prof Emeritus Deceased 3/22/2009				
Hogan, Tiffany		Asst.Prof, TE	Asst.Prof, TE Vol. Resignation 05/19/2008					
Hoit, Jeannette D.	Professor, T+	Professor, T+	Professor, T+	Professor, T+	Professor, T+	Professor, T+	Professor, T+	
Holland, Audrey	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	Adjunct Lecturer Prof. Emerita	
Lee, Jungmee	Asst. Prof, TE	Asst. Prof, TE	Asst.Prof, TE	Asst.Prof, TE-	Resign 05/18/09			
Lotto, Andrew		Asst. Prof, TE	Asst. Prof, TE	Asst. Prof, TE	Assoc.Prof, T+	Assoc.Prof, T+	Assoc. Prof,T+	
Maas, Edwin				Adjunct Lecturer	Adjunct Lecturer	Adjunct Lec./Asst Prof, TE 1/10	Asst Prof, TE	
Marrone, Nicole						Asst Prof, TE 1/11	Asst Prof, TE	
Plante, Elena	Professor, T	Professor, T+ Acting Head	Professor, T+ Dept.Head	Professor, T+ Dept.Head	Professor, T+ Dept.Head	Professor, T+ Dept.Head	Professor T+	
Story, Brad	Asst. Prof, TE	Assoc. Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+	Assoc.Prof, T+ Assoc.DH	
VanTasell, Dianne	Adjunct Lecturer	Adj. Professor	Position Ended 03/24/2008					
Wilson, Stephen						Asst Prof, TE	Asst Prof, TE	
<i>Total Perm Faculty</i>	10	13	13	11	12	15	14	14

APPENDIX D. SLHS CLINICAL FACULTY AND LECTURERS OVER TIME

Name	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Casteix, Jennifer		Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
Crooke, Pamela	Clinical Inst.	Clinical Inst.	Resigned 08/25/2007				
Crooks, Kimberly			Director-Autism Ctr	Director-Autism Ctr	Director-Autism Ctr	Voluntary Resignation 02/01/2011	
Cuzner, Lea	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
DeFeo, Anthony	Director	Director	Director	Retired 12/27/2008	Deceased 09/22/2010		
Dean, James					Sr Lecturer	Sr Lecturer	Sr Lecturer
Faux Muller, Cass	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Assoc.Prof.
Foreman, Kelli	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Resigned 08/18/2009		
Guilmette, Karen				Adjunct Lecturer	Adjunct Lecturer	SLP	Research SLP
Harris, Frances P.	Sr.Lecturer	Adjunct Lecturer.	Adjunct Lecturer.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
Hawley, Janet L.	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
Hesse, Kristi		Clinical Inst.	Resigned 01/08/2009				
Kaplan, Tracey					SLP	Clinical Asst.Prof.	Clinical Asst.Prof.
Kiernan, Barbara	Director- WOW	Director- WOW	Director- WOW	Director- WOW	Director- WOW	Director- WOW	Director- WOW
McDonald, Betty	Clinical Inst.	Clinical Inst.	Clinical Inst.	Resigned 12/16/2008			
McGrath, Kathe					Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
Muller, Thomas	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Assoc.Prof.	Clinical Assoc.Prof.	Clinical Assoc.Prof.
Norrix, Linda	Clinical Inst.	Clinical Inst.	Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.
Peterson, Julie						Clinical Asst.Prof.	Clinical Asst.Prof.
Velenovsky, David				Sr Lecturer	Sr Lecturer	Sr Lecturer	Sr Lecturer
Wiley, Kay					Technical Expert	Voluntary Resignation 06/06/2011	
Wymer, Carole			Clinical Inst.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.	Clinical Asst.Prof.

APPENDIX E. SLHS STAFF EMPLOYMENT HISTORY

Name	Dept.Hire Date	FTE	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Adams, Pam	1/25/82	1.00	Admin.Assoc.	Admin.Assoc.	Admin.Assoc.	Admin.Assoc.	Admin.Assoc.	Admin.Assoc. Retired 04/02/2011	
Andersen, Sarah	10/4/10	0.80						Research Specialist	Voluntary Resignation 07/30/2011
Aparicio, Patricia	6/23/10	1.00						Admin.Secretary	Admin.Secretary
Baze, Sara (W.O.W)	6/2/08	0.88				Instructional Aide	Instructional Aide	Instructional Aide	Voluntary Resignation 02/20/12
Chiquette, Olivia	8/13/01	0.88	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide
Doma, Pashant	9/18/02	1.00	Support Syst.Analyst	Support Syst.Analyst	Voluntary Resignation 10/02/2007				
Enneking, Lacy	9/12/94	1.00	Admin.Secretary	Admin.Secretary	Admin.Secretary	Admin.Secretary	Admin.Secretary	Admin.Secretary	Assoc.Accountant
Fay, Cathy	7/1/01	1.00	Admin.Secretary	Admin. Assistant	Admin. Assistant	Admin. Assistant	Admin. Assistant	Admin. Assistant	Admin.Associate
Frausto, Jocabed (W.O.W.)	5/29/07	0.88			Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr
Furrier, Fran (W.O.W)	8/22/05	0.55	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.
Gatlin, Eldon	9/24/07	1.00			Applications Syst.Ana	Applications Syst.Ana	Layoff w/Recall Rights	End 1 yr Layoff Period	
Greif, Amy (W.O.W.)	8/30/10	0.88						Instructional Spec.	Instructional Spec.
Heinecke, Shaunna	9/7/10	1.00						Admin.Secretary	Admin.Assistant
Hinds, Marina (W.O.W)	8/29/94	0.88	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide	Instructional Aide
Howell, Melissa (W.O.W)	1/27/03	0.88	Instructional Spec.Sr	Instructional Spec.Sr	Voluntary Resignation 10/02/2007				
Jacobs, Sherry	7/19/89	1.00	Admin.Associate	Assoc.Accountant	Assoc.Accountant	Assoc.Accountant	Assoc.Accountant	Assoc.Accountant	Assoc.Accountant
Johnson, Annette (W.O.W)	1/9/06	0.88	Instructional Aide	Voluntary Resignation 07/11/2006					
Kennelly, Candy (W.O.W)	1/8/01	0.88	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr	Instructional Spec.Sr
Kim, Esther	4/5/99	0.80	Grad.Assoc.Research	Research Specialist	Research Specialist	Research Specialist	Voluntary Resignation 12/01/2009		
MacLellan, Liz	1/25/10	1.00					Admin.Secretary Voluntary Resignation 06/03/2010		
Meeks, Heather (W.O.W)	8/14/06	1.00	Instructional Aide	Instructional Aide	Instructional Spec.	Layoff w/Recall Rights			

Minopoli, Denise	5/29/07	1.00		Office Specialist	Office Specialist	Office Specialist	Office Specialist	Admin. Assistant	Admin. Assistant	Admin. Assistant
Murphy, Benham	10/17/11	1.00						Business Manager	Business Manager	
Patterson, Dianne	10/30/00	0.75	Asst.Comp.Manager	Asst.Comp.Manager	Asst.Comp.Manager	Asst.Comp.Manager	Asst.Comp.Manager	Asst.Comp.Manager	Asst.Comp.Manager	Research Specialist
Perona, Gayle	8/2/04	0.50	Office Specialist	Office Specialist	Office Specialist	Office Specialist	Office Specialist	Office Specialist	Retirement 08/09/2010	
Piihle, Michelle (W.O.W)	5/28/02	1.00	Instructional Aide	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.	Instructional Spec.
Reyna, Magda (W.O.W)	11/1/05	0.50	Office Assistant	Office Assistant	Office Assistant	Office Assistant	Office Assistant	Office Assistant	Office Assistant	Office Assistant
Rising, Kindle	1/1/99	0.80	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research SLP	Research SLP
Rost-Zakerwski, Karen	6/12/95	1.00	Prgrm Coordinator,Sr	Prgrm Coordinator,Sr	Prgrm Coordinator,Sr	Prgrm Coordinator,Sr	Prgrm Coordinator,Sr	Prgrm Coordinator,Sr	Director, W.O.W.	Director, W.O.W.
Sardanovski, Anthony	3/26/07	1.00	Support Syst.Analyst	Support Syst.Analyst	Mil.Ser.11/04/2007 Voluntary Resignation 04/02/2008					
Sullivan, Sarah	3/26/07	1.00			Research Specialist	Research Specialist	Research Specialist	Research Specialist	Research Specialist	Voluntary Resignation 08/12/2011
Tomoeda, Cheryl (COS)	7/1/81	1.00	Prgrm Coordinator.Sr	Assoc.Director - COS	Assoc.Director - COS	Assoc.Director - COS	Assoc.Director - COS	Assoc.Director - COS	Assoc.Director - COS	Assoc.Director - COS
Valenzuela, Lydia	6/30/08	1.00				Admin.Secretary	Admin.Secretary	Admin.Secretary	Voluntary Resignation 06/01/2010	
Vance, Becky	1/18/82	1.00	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Research Spec. Sr	Laboratory Sr.Manager
Waller, Christopher	10/3/07	0.75			Support Syst. Analyst	Support Syst. Analyst	Support Syst. Analyst	Voluntary Resignation 03/18/2010		
Wijeweera, Tharini	7/21/08	1.00				Academic Advisor	Academic Advisor	Academic Advisor	Academic Advisor	Academic Advisor
Xia, Guowei	2/26/07	0.50		Research Specialist	Voluntary Resignation 06/04/2007					
Zimmerman, Veronica	1/2/06		Admin.Secretary	Admin.Secretary	Admin.Secretary	Admin.Secretary	Voluntary Resignation 05/07/2008			

APPENDIX. F. FACULTY COLLABORATIONS WITHIN THE UNIVERSITY OF ARIZONA

J = Joint Appointment; M = member; C = collaboration

	Graduate Interdisciplinary Programs				Inst	School	UA Departments					University of Arizona Medical Center					School of Public Health		
	Cog Sci GDP	Neurosci GDP	Bio Med GDP	SLAT	Bio5	SISTA	Educ.	Ling	Psych	Span/Port	Chem. Opt. Sci.	ENT	Peds	NeuroL	Nursing	Radiol.	Family & Child Health	Health Promot	Enviroml & Occ Health
Ten Track Faculty																			
Alt, Mary	C				C	C													
Beeson, Pélagie	M							C						J, C		C			
Bunton, Kate							C												
Cone, Barbara		M																	
Dai, Haunping																			
DeDe, Gayle	M			M					C										
Fabiano-Smith, Leah				M			C	C		C									
Hoit, Jeannette		M																	
Lotto, Andrew	M								C										
Maas, Edwin	M							C											
Marrone, Nicole									C									C	
Plante, Elena	M, C					J			C										
Story, Brad	M		M																
Wilson, Stephen	M													J, C		C			
Clinical Faculty																			
Castiex, Jennifer											C		J, C				C		
Faux, Cass							C		C					C					
Harris, Fran							C							C				C	
McGrath, Kathe																			
Muller, Tom							C												C

Cog Sci = Cognitive Science Graduate Interdisciplinary Program; Neurosci = Neuroscience Graduate Interdisciplinary Program; Bio5 = Bio5 Institute; Bio Med = Biomedical Engineering; Educ = Education; Ling = Linguistics; Psych = Psychology; SISTA = School of Science, Technology, and Arts; SLAT = Second Language Acquisition & Teaching; Span/Port = Spanish Portuguese; ENT = Division of Otolaryngology; Peds = Pediatrics; Neurol = Neurology; Radiol = Radiology.

APPENDIX G. MASTER OF SCIENCE PROGRAM OF STUDY 2012-2013 (from MS-SLP Student Handbook)

Overview of Course Requirements for M.S Degree with emphasis in Speech-Language Pathology

Course #	<u>Fall 1st year</u>	Units	Course #	<u>Spring 1st year</u>	Units
555	Developmental Language:	3	552	School-Age Language	3
544	Adult Language Disorders: Aphasia	3	543	Adult Language Disorders: TBI	3
567	Preclinical Speech Science	3	557	Dysphagia	3
511	Tool School (Clinical	3	512	Evaluation	3
571	<i>Speech Sound Disorders (if needed)</i>	3		Colloquium	1
	Clinic (1 unit if 571 needed)	2		Clinic	2
	TOTAL HOURS	14-17		TOTAL HOURS	15
	<u>Summer 1st year</u> Clinic	2			
Course#	<u>Fall 2nd year</u>	Units	Course#	<u>Spring 2nd year</u>	Units
575	Neuromotor Speech	3	574	Speech Disorders II	3
554	Audiology (Across Lifespan)	3	500	Research Methods	3
572	Speech Disorders I	3		Elective	2-3
501	Professional Issues	1			
	Clinic	2		Clinic	2
	TOTAL HOURS	12		TOTAL HOURS	10-11

Total units required for MS degree 36

Note that if you have not previously completed the following coursework, you should call this to the attention of your advisor, and take it as early as possible during your graduate study:

- 1 course in Physical Science, 1 course in Biological Sciences, 1 course in Behavioral/Social Sciences, 1 Math course (college algebra or above), and 1 statistics course
- Speech Sound Disorders (Articulation & Phonology)

Overview of Practicum Requirements

Students completing the MS degree in clinical sciences must have coursework and practicum experiences meeting the certification requirements of the American Speech, Language, and Hearing Association (ASHA). The University views the practicum courses as laboratory courses. As such, the University requires 45 hours of assigned experience for each unit of academic credit in practicum enrollment.

A total of 400 clock hours of supervised clinical practicum must be completed in the practice of speech-language pathology, including an initial 25 hours in clinical observation followed by 375 hours in direct client/patient contact. Up to 75 hours can be transferred from an undergraduate program. At least 325 hours must be completed during graduate training in at least three distinct settings. To comply with current Arizona state licensure laws, students will be required to complete 20 hours of clinical practicum in audiology.

Overview of Three Year Program for Clinical M.S. in Speech-Language Pathology

Students admitted to the Master's Degree Program with backgrounds in other fields will need to complete preliminary coursework during their first year. This first year (called Zero year) will include both undergraduate and graduate level coursework. Students must register for at least 6 units of graduate-level credit each semester. When a course is offered both on the 400- and 500-level, students must register for the 500- level course. The student's academic advisor will review academic records and recommend coursework for the Zero year. (See Guidance for Zero year sections).

Academic Requirements for Three-Year Program in SLP

Fall

SLHS 565 – Acoustics for the Speech and Hearing Sciences (3)
SLHS 340 – Language Science (3)
SLHS 571 – Speech Sound Disorders (3)
SLHS 477 – Communication Disorders I (3)
SLHS 583R/L – Principles of Audiology (4)
SLHS 595a – Colloquium (1)
Statistics course or other deficiency (3)

Spring

SLHS 261 – Anatomy and Physiology of the Speech Mechanism(3+1)
SLHS 541 – Language Acquisition (3)
SLHS 567 Speech Perception (3) or SLHS 530 Cognitive Neuroscience of Language (3)
SLHS 473 – Communication Disorders II (3)
SLHS 380 – Phonetics (3)
SLHS 596a – Clinical Observations and Analysis (1)
SLHS 458-Clinician Assistant Program

All deficiencies identified during admission, should also be taken during the zero year. Please meet with your advisor early in your first semester to determine what courses need to be completed.

Clinical Training: Clinical training begins in the on-campus clinics under the supervision of clinical faculty. During the clinic orientation, students will be introduced to several forms that are used to guide and evaluate performance in the clinical program: the Grading Overview (G.O.), the Formative Assessment of Student Training (F.A.S.T.), and the Portfolio Assessment of Clinical Education (P.A.C.E.) forms. The F.A.S.T. ratings will be entered electronically by the clinical instructor and a summary of the ratings will be entered in the ROKSA. The G.O. is discussed at the time of grading and kept on file in the clinic office. A copy of the P.A.C.E. will be placed on record each semester.

Master of Science in Speech, Language, and Hearing Science without clinical training

Students, who elect to major in **basic** speech, language, or hearing science (without clinical training) must plan their courses of study with an advisor and have the plan reviewed, and approved by the Department's Masters Committee. Coursework will include basic sciences, clinical sciences, and the completion of a master's thesis.

APPENDIX H. DOCTOR OF AUDIOLOGY (AuD) 2012-2013 Program of Study
 (from Student Handbook for Doctor of Audiology)

Required Coursework (* is Take or Show; can be at undergraduate level. If you have had another course that fulfills this requirement, then it should be indicated in the line below the required course)

Course	Units	Title	Sem (f,sp,s, year)	Grade
[] SLHS 562A	3	Anatomy & Physiology of Aud & Vest Sys		
[] SLHS 562B	3	Psychophysical Acoustics		
[] SLHS 584	1	Occupational & Community Audiology		
[] SLHS 581A	3	Auditory Prosthetics I		
[] SLHS 581B	3	Auditory Prosthetics II		
[] SLHS 596G	3	Cochlear Implants		
[] SLHS 582	3	Disorders of Hearing & Balance		
[] SLHS 565*	3	Acoustics for Speech & Hearing Sciences		
[] SLHS 586	4	Pediatric Audiology		
[] SLHS 587	2	Laboratory in Auditory Prosthetics		
[] SLHS 588A	3	Physiological Eval of the Auditory Sys		
[] SLHS 588L	2	Lab in Physiol Eval of Aud System		
[] SLHS 588B	3	Assessment & Rehab of the Balance Sys / Lab		
[] SLHS 588Q	1	Lab in Assessment & Rehab of the Balance Sys / Lab		
[] SLHS 588C	3	Electrophysiol of Auditory Perception & Cognition		
[] SLHS 589R	3	Advanced Audiologic Eval & Laboratory		
Counseling requirement	3	SLHS 510, Counseling Techniques in Comm. Disorders or approved counseling course outside the SLHS Department at graduate or undergraduate level		
[] SLHS 501	1	Professional Issues		
[] SLHS 795a	3	Clinical Issues in Audiology (3 units [3 semesters])		

Seminars and Workshops SLHS

Course	Units	Title	Sem	Grade
[] SLHS 596J	2	Seminar: Business Aspects of Audiology		
[] SLHS 596M	1	Tinnitus		

**APPENDIX H. DOCTOR OF AUDIOLOGY (Au.D.) 2012-2013 Program of Study
Additional Required Coursework**

Course	Units	Title	Sem	Grade
[] SLHS 500	3	Research Methods*		
[]	3	Course in Speech or Language Development*		
[]	3	Course in either Adult or Pediatric Comm Disorders*		
[]	3	Course in Speech Perception*		
[]	3	Statistics* (Graduate level or as approved by advisor; must include analysis of variance/GLM)		
[]	3	Pharmacology (Graduate level)		
[]	3-4	Neurosciences (Graduate level, but must be approved by advisor)		

(If using undergraduate course to meet requirements, enter waived under semester and grade)

Research Project (minimum 3 units; maximum 9 units)

Course	Units	Title	Sem	Grade
[] SLHS 900	3	Research		
[] SLHS 900	3	Research		

Clinical Studies Coursework: (minimum units: 16 units total)

List each enrollment separately with the name(s) of supervisor(s). Add lines if necessary

Course	Units	Title	Sem (f,sp,s, year)	Grade
[] SLHS 559		Clinical Studies: Audiology		
[] SLHS 659		Advanced Clinical Studies: Audiology		
[] SLHS 921	4	Externship: Audiology (minimum 4 units)		

APPENDIX I: OVERVIEW OF REQUIREMENTS FOR PHD IN SPEECH, LANGUAGE, AND HEARING SCIENCES
Abstracted from “Quick Guide to Doctoral Program Requirements” in SLHS PhD Student Handbook

Note: Each requirement is followed by either SLHS, GC, or UA. These refer to whether the requirement is departmental (**SLHS**), Graduate College (**GC**), or University policy (**UA**). In general, any **GC**-based requirement involves official paperwork to be submitted to the Graduate College.

- Students are required to complete a **minimum of 36 graduate semester credits** according to the plan of study approved by the student’s mentor and Qualifying/Program Development committee. These credits are in addition to credits obtained via dissertation research and audits. (**GC**)
- **Required courses (SLHS)**
 - **SLHS 649** Survival Skills and Ethics (3 credits)
 - **SLHS 696** Doctoral Seminars in Speech, Language, and Hearing (6 credits)
 - **SLHS 696** Grant Writing (2 credits)
 - **SLHS 900** Laboratory research rotations (two registrations for 3 units each); one rotation must be in a lab other than that of the student’s primary mentor.
- Students are required to complete or present (“take or show”) coursework to the Qualifying/Program Development Committee that is equivalent to **SPH 500**. (**SLHS**)
- Individuals who did not complete a master’s thesis prior to enrolling in the doctoral program are required to **complete a thesis-equivalent research project and present this research in a public forum** (e.g. colloquium, seminar, conference, etc.). This project must be completed prior to taking the comprehensive exam. (**SLHS**)
- The Graduate College requires that a student complete a formal **minor** course of study. The minor must consist of at least **9 credits** of graduate-level coursework. (**GC**)
- All students are required to **prepare a prospectus document and hold a prospectus meeting** with their chosen dissertation committee. (**SLHS**)
- All students are required to **present a dissertation proposal** at a departmental colloquium. (**SLHS**)
- The dissertation defense must be held publically and scheduled such that it does not conflict or coincide with the departmental colloquium. (**SLHS/GC**)

APPENDIX J. SLHS Course Numbers and Titles

SLHS #	Course Title	SLHS #	Course Title
207	Human Communications and Its Disorders	572	Speech Disorders I
261R	Anatomy and Physiology of Speech Mech	574	Speech Disorders II
261L	Anatomy & Phys of Speech Mech: Lab	575	Neuromotor Speech Disorders
255	Hearing, Health, Society	581A	Auditory Prosthetics I
263	The World of Sound: Speech, Music, & MP3s	581B	Auditory Prosthetics II
267	Acoustics for SLHS	582A	Disorders of Hearing/Balance
270	Scientific Thinking in SLHS	584	Occupational and Community Audiology
340	Language Science	586	Pediatric Audiology
362	Neurobiology of Communication	587	Laboratory in Auditory Prosthetics
367	Phonetics	588A	Physiological Evaluation in Audiology
380	Hearing Science (includes lab)	588B	Assessment & Rehab of the Balance System
391/491	Preceptor in SLHS	588C	Electrophysiology of Auditory Perception
392	Directed Research	588L	Laboratory in Electrophysiology
399/499	Independent Study	588Q	Laboratory in Balance
399H	Honors Independent Study	589R	Advanced Audiologic Evaluation
430/530	Cognitive Neuroscience of Language	595a	Colloquium
435/535	Bilingualism, Multiculturalism	596	Seminars
441/541	Language Acquisition	596A	Experimental Phonetics
454/554	Audiologic Rehabilitation-Lifespan	596B	Clinical Audiology
458/558	Clinical Studies: Speech-Language Pathology	596C	Hearing: Physiology and Psychophysics
459/559	Clinical Studies: Audiology	596D	Language and Language Disorders
471/571	Speech Sound Disorders	596E	Speech Pathology
473	Communication Disorders II	596F	Counseling for Speech and Hearing
477	Communication Disorders I	596G	Cochlear Implants
483/583	Principles of Audiology (Lecture)	596I	Research Forum in Audiology
483/583L	Laboratory in Principles of Audiology	596J	Business Issues in Audiology
492	Directed Research	596K	Imaging Technologies
495a	Colloquium	596L	Aging and the Auditory System
496a/	Seminar: Advanced Clinical Observation,	596M	Tinnitus
596a	Analysis, & Writing	596N	Educational Aud & Speech-Lang Pathology
498	Senior Capstone	597	Workshop
498H	Honors Thesis	597A	Supervision in Speech and Hearing
499H	Honors Independent Study	597B	Professional and Legal Issues in Audiology
500	Introduction to Research Methods in SLHS	597C	Cerumen Management
501	Professional Issues in SLP and Aud	597D	Software Application in SLHS
510	Counseling Techniques in Comm Disorders	599/699	Independent Study
511	Tool School: Intro to Clinical Practice in SLP	649	Survival Skills and Ethics
512	Evaluation Process in SLP	658	Advanced Clinical Studies: Speech-Language
520	Cognitive Neuroscience of Hearing	659	Advanced Clinical Studies: Audiology
543	Adult Lang Disorders: TBI and Dementia	691	Preceptorship
544	Adult Lang Disorders: Aphasia & RH Dis	696	Seminar
552	Language Disorders in School Age Children	696A	Topics in Speech, Language, Hearing Science
555	Developmental Language Disorders	696B	Clinical Audiology
557	Dysphagia (Swallowing Disorders)	799	Independent Study
558	Clinical Studies: Speech-Language Pathology	795a	Clinical Issues in Audiology
559	Clinical Studies: Audiology	900	Research
562A	Anat/Physiology of Auditory & Vestibular Sys	908	Case Studies
562B	Psychophysical Acoustics	910	Thesis
565	Acoustics for Speech and Hearing Sciences	920	Dissertation
567	Preclinical Speech Science	921	Audiology Externship
568	Speech Perception		

APPENDIX K. ASHA Standards for Speech-Language Pathology

2005 Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology, Revised March 2009 http://www.asha.org/certification/slp_standards/

ASHA Standards for Speech-Language Pathology are listed below, followed by the SLHS courses in which the knowledge and skills are covered and assessed, and in what manner. All lecture classes involve didactic teaching and discussion. See **APPENDIX J** course numbers/names.

Standard III: Program of Study: Knowledge Outcomes

- A. The student must have prerequisite knowledge of the biological sciences, physical sciences, mathematics, and the social/behavioral sciences.
 - SLHS 500, 572, 574, 520, 530, 565: Problem-based learning, exams
- B. The student must demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases.
 - SLHS 544, 552, 554, 567, 570, 571, 572, 574, 520, 530, 565, 596g: Problem-based learning, exams
 - SLHS 543, 557: Case study, homework, exams
- C. The student must demonstrate knowledge of the nature of speech, language, hearing, and communication disorders and differences and swallowing disorders, including the etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates. Specific knowledge must be demonstrated in the following areas: articulation, fluency, voice and resonance, including respiration and phonation receptive and expressive language (phonology, morphology, syntax, semantics, and pragmatics) in speaking, listening, reading, writing, and manual modalities hearing, including the impact on speech and language swallowing (oral, pharyngeal, esophageal, and related functions, including oral function for feeding; orofacial myofunction) cognitive aspects of communication (attention, memory, sequencing, problem-solving, executive functioning) social aspects of communication (including challenging behavior, ineffective social skills, lack of communication opportunities) communication modalities (including oral, manual, augmentative, and alternative communication techniques and assistive technologies).
 - SLHS 511, 512, 544, 552, 554, 570, 571, 572, 574, 575, 510, 520, 530, 596g: Problem-based learning, discussion, exams
 - SLHS 543, 557: Case study, exams, homework

Standard III-D: The student must possess knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders, including consideration of anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders.

- SLHS 511: Homework
- SLHS 512, 543, 544, 552, 554, 555, 575, 510: Problem-based learning, exams
- SLHS 557: Case study, homework, exams
- SLHS 570, 571, 574: Quizzes, presentations, short papers
- SLHS 572: Observations, discussions, quizzes, exams

Standard III-E: The student must demonstrate knowledge of standards of ethical conduct.

- SLHS 500, 501: Problem-based learning, participation, exams
- SLHS 512: Project, exams
- SLHS 544, 555, 570, 574, 575, 510: Problem-based learning, discussion, paper, exams
- SLHS 557: Case study, homework, exam
- SLHS 596g: Exam

Standard III-F: The student must demonstrate knowledge of processes used in research and the integration of research principles into evidence-based clinical practice.

- SLHS 500, 543, 552, 554, 555, 530: Problem-based learning, participation, presentation, paper, exam
- SLHS 512: Project, exam
- SLHS 596g: Exam

Standard III-G: The student must demonstrate knowledge of contemporary professional issues.

- SLHS 501, 510, 512, 543, 552, 555: Problem-based learning, participation, exam
- SLHS 512: Project, exam
- SLHS 557: Case study, homework, exam
- SLHS 570, 574, 575: Presentation, paper, exam
- SLHS 572: Problem-based learning, observations, exam
- SLHS 596g: Exam

Standard III-H: The student must demonstrate knowledge about certification, specialty recognition, licensure, and other relevant professional credentials.

- SLHS 501, 510: Problem-based learning, participation, exam
- SLHS 557: Problem-based learning, homework, exam
- SLHS 570, 574, 575: Problem-based learning, presentation, paper, exam
- SLHS 572: Problem-based learning, observation, exam

Standard IV: Program of Study: Skills Outcomes

Standard IV-A: The student must complete a curriculum of academic and clinical education that follows an appropriate sequence of learning sufficient to achieve the skills outcomes in Standard IV-G.

Standard IV-B: The student must possess skill in oral and written or other forms of communication sufficient for entry into professional practice.

- SLHS 500, 510, 552, 557: Problem-based learning, participation, exam
- SLHS 501: Resumé, research proposal
- SLHS 512: Project, exam
- SLHS 520: Exam
- SLHS 530, 596g: Presentation, paper
- SLHS 543, 554, 555, 567, 570, 571, 572, 574, 575: Presentation, paper, exam

Standard IV-C: The student for certification in speech-language pathology must complete a minimum for 400 clock hours of supervised clinical experience in the practice of speech-language pathology. Twenty-five hours must be spent in clinical observation, and 375 hours must be spent in direct client/patient contact.

Standard IV-D: At least 325 of the 400 clock hours must be completed while the student is engaged in graduate study in a program accredited in speech-language pathology by the Council on Academic Accreditation in Audiology and Speech-Language Pathology.

Standard IV-E: Supervision must be provided by individuals who hold the Certificate of Clinical Competence in the appropriate area of practice. The amount of supervision must be appropriate to the student's level of knowledge, experience, and competence. Supervision must be sufficient to ensure the welfare of the client/patient.

Standard IV-F: Supervised practicum must include experience with client/patient populations across the life span and from culturally/linguistically diverse backgrounds. Practicum must include experience with client/patient populations with various types and severities of communication and/or related disorders, differences, and disabilities.

Standard IV-G: The student for certification must complete a program of study that includes supervised clinical experiences sufficient in breadth and depth to achieve the following skills outcomes:

1. Evaluation

- a. Conduct screening and prevention procedures (including prevention activities).
 - b. Collect case history information and integrate information from clients/patients, family, caregivers, teachers, relevant others, and other professionals.
 - c. Select and administer appropriate evaluation procedures, such as behavioral observations, non-standardized and standardized tests, and instrumental procedures.
 - d. Adapt evaluation procedures to meet client/patient needs.
 - e. Interpret, integrate, and synthesize all information to develop diagnoses and make appropriate recommendations for intervention.
 - f. Complete administrative and reporting functions necessary to support evaluation.
 - g. Refer clients/patients for appropriate services.
2. Intervention
- a. Develop setting-appropriate intervention plans with measurable and achievable goals that meet clients'/patients' needs. Collaborate with clients/patients and relevant others in the planning process.
 - b. Implement intervention plans (involve clients/patients and relevant others in the intervention process).
 - c. Select or develop and use appropriate materials and instrumentation for prevention and intervention.
 - d. Measure and evaluate clients'/patients' performance and progress.
 - e. Modify intervention plans, strategies, materials, or instrumentation as appropriate to meet the needs of clients/patients.
 - f. Complete administrative and reporting functions necessary to support intervention.
 - g. Identify and refer clients/patients for services as appropriate.
3. Interaction and Personal Qualities
- a. Communicate effectively, recognizing the needs, values, preferred mode of communication, and cultural/linguistic background of the client/patient, family, caregivers, and relevant others.
 - b. Collaborate with other professionals in case management.
 - c. Provide counseling regarding communication and swallowing disorders to clients/patients, family, caregivers, and relevant others.
 - d. Adhere to the ASHA Code of Ethics and behave professionally.

Standard IV: Assessment

The student for certification must demonstrate successful achievement of the knowledge and skills delineated in Standard III and Standard IV by means of both formative and summative assessment.

Standard V-A: Formative Assessment

The student must meet the education program's requirements for demonstrating satisfactory performance through on-going formative assessment of knowledge and skills.

Standard V-B: Summative Assessment

The student must pass the national examination adopted by ASHA for purposes of certification in speech-language pathology.

APPENDIX L. ASHA STANDARDS FOR AUDIOLOGY

2012 Standards and Implementation Procedures for the Certificate of Clinical Competence in Audiology
<http://www.asha.org/Certification/2012-Audiology-Certification-Standards/>

Standard IV: Knowledge and Skills Outcomes

Students for certification must have acquired knowledge and developed skills in six areas: foundations of practice, prevention/identification, assessment, (re)habilitation, advocacy/consultation, and education/research/administration.

Standard IV-A: Foundations of Practice

The student must have knowledge of:

- A1. Embryology and development of the auditory and vestibular systems, anatomy and physiology, neuroanatomy and neurophysiology, and pathophysiology
 - SLHS 562a: Class discussion, presentations, exam
 - SLHS 582, 596m: Oral & written assignments
 - SLHS 586, 588a, 588b, 589r: Written exam
- A2. Genetics and associated syndromes related to hearing and balance
 - SLHS 562a: Class discussion, presentations, exam
 - SLHS 582, 596m: Oral & written assignments
 - SLHS 584: Lab projects, exam
 - SLHS 586, 588a, 588b, 589r, 596g: Written exam
- A3. Normal aspects of auditory physiology and behavior over the life span
 - SLHS 562a: Class discussion, presentations, exam
 - SLHS 581b: Class discussion
 - SLHS 588a, 589r: Written exam
 - SLHS 588l: Lab projects
- A4. Normal development of speech and language
 - SLHS 586: Written exam
- A5. Language and speech characteristics and their development across the life span
- A6. Phonologic, morphologic, syntactic, and pragmatic aspects of human communication associated with hearing impairment
 - SLHS 586: Written exam
- A7. Effects of hearing loss on communication and educational, vocational, social, and psychological functioning
 - SLHS 562b, 581a: Class discussion, exam
 - SLHS 581b: Class discussion, paper, presentation, exam
 - SLHS 582, 596m: Oral & written assignments
 - SLHS 584, 795a: Projects, exam
- A8. Effects of pharmacologic and teratogenic agents on the auditory and vestibular systems
 - SLHS 582: Written assignments
 - SLHS 586, 588a, 588b, 589r, 596g: Written exam
 - SLHS 596m: Oral & written assignments
- A9. Patient characteristics (e.g., age, demographics, cultural and linguistic diversity, medical history and status, cognitive status, and physical and sensory abilities) and how they relate to clinical services
 - SLHS 510: Class discussion, paper
 - SLHS 581b: Class discussion, paper, presentation, exam

- SLHS 586, 589r: Written exam
 - SLHS 588b: Lab, written exam
 - SLHS 596m: Oral & written assignments
- A10. Pathologies related to hearing and balance and their medical diagnosis and treatment
- SLHS 581b: Class discussion, paper, presentation
 - SLHS 582, 586, 588a, 589r: Written exam
 - SLHS 588b: Lab, written exam
 - SLHS 588l: Lab projects
 - SLHS 596m: Oral & Written assignments
- A11. Principles, methods, and applications of psychometrics
- SLHS 562b, 588c: Class discussion, exam
 - SLHS 581b: Class discussion, written assignment
 - SLHS 596m: Oral & written assignments
- A12. Principles, methods, and applications of psychoacoustics
- SLHS 562b, 581b, 588c: Class discussion, exam
 - SLHS 589r: Written exam
 - SLHS 596m: Oral & written assignments
- A13. Instrumentation and bioelectrical hazards
- SLHS 584, 795a: Projects, exam
 - SLHS 588a, 589r: Written exam
 - SLHS 588b: Lab, written exam
 - SLHS 588l: Lab projects
- A14. Physical characteristics and measurement of electric and other nonacoustic stimuli
- SLHS 588a: Written exam
 - SLHS 588b: Lab, written exam
 - SLHS 588c: Class discussion, exam
 - SLHS 588l: Lab projects
- A15. Assistive technology
- SLHS 581b: Class discussion, lab project, presentation
 - SLHS 586: Written exam
 - SLHS 587: Lab project
 - SLHS 596m: Oral & written assignments
 - SLHS 795a: Projects, exam
- A16. Effects of cultural diversity and family systems on professional practice
- SLHS 500, 581b: Class discussion, exam
 - SLHS 586, 589r: Written exam
 - SLHS 596m: Oral & written assignments
 - SLHS 795a: Projects, exam
- A17. American Sign Language and other visual communication systems
- SLHS 586, 588a: Written exam
 - SLHS 588c: Class discussion
 - SLHS 596m: Oral & written assignments

A18. Principles and practices of research, including experimental design, statistical methods, and application to clinical populations

- SLHS 500: Class discussion, research proposal, presentation, exam
- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 586, 589r: Written exam
- SLHS 587: Lab project
- SLHS 596j, 795a: Projects, exam
- SLHS 596m: Oral & written assignments

A19. Legal and ethical practices (e.g., standards for professional conduct, patient rights, credentialing, and legislative and regulatory mandates)

- SLHS 500, 501: Class discussion, exam
- SLHS 581b: Class discussion, lab quiz
- SLHS 584, 596j, 795a: Projects, exam
- SLHS 586: Written exam
- SLHS 587: Lab project

A20. Health care and educational delivery systems

- SLHS 581b: Class discussion
- SLHS 586: Written exam
- SLHS 587: Lab project
- SLHS 588b: Lab
- SLHS 795a: Projects, exam

A21. Universal precautions and infectious/contagious diseases

- SLHS 582: Written assignments
- SLHS 588a, 596g: Written exam
- SLHS 596j, 795a: Projects, exam

The student must have knowledge and skills in:

A22. Oral and written forms of communication

- SLHS 500, 501, 582: Oral & written assignments, presentations
- SLHS 565: Journal article reviews
- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 586: Written exam

A23. Principles, methods, and applications of acoustics (e.g., basic parameters of sound, principles of acoustics as related to speech sounds, sound/noise measurement and analysis, and calibration of audiometric equipment), as applicable to: occupational and industrial environments, b. community noise, classroom, and other educational environments, workplace environments

- SLHS 565: Homework, quizzes, exam
- SLHS 584, 795a: Projects, exam
- SLHS 586: Written exam
- SLHS 587, 588l: Lab projects
- SLHS 588a, 588b: Lab

A24. The use of instrumentation according to manufacturer's specifications and recommendations

- SLHS 581b: Class discussion
- SLHS 584, 795a: Projects, exam
- SLHS 586, 588b: Lab
- SLHS 587, 588l: Lab projects
- SLHS 588a: Lab, written exam
- SLHS 589r: Written exam

A25. Determining whether instrumentation is in calibration according to accepted standards

- SLHS 565: Demonstration
- SLHS 584, 588a, 795a: Projects, exam
- SLHS 586, 588b: Lab
- SLHS 587, 588l: Lab projects
- SLHS 589r: Written exam

A26. Principles and applications of counseling

- SLHS 510: Class discussion, paper
- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 587: Lab project
- SLHS 588a, 588b: Lab, written exam
- SLHS 589r: Written exam
- SLHS 596m: Oral & written assignments
- SLHS 795a: Projects, exam

A27. Use of interpreters and translators for both spoken and visual communication

- SLHS 586: Written exam

A28. Management and business practices, including but not limited to cost analysis, budgeting, coding and reimbursement, and patient management

- SLHS 596j, 795a: Projects, exam

A29. Consultation with professionals in related and/or allied service areas

- SLHS 581b: Class discussion, group project
- SLHS 582, 596m: Oral & written assignments
- SLHS 586, 589r: Written exam
- SLHS 587: Lab project
- SLHS 596j, 795a: Projects, exam

Standard IV-B: Prevention and Identification

The student must have the knowledge and skills necessary to:

B1. Implement activities that prevent and identify dysfunction in hearing and communication, balance, and other auditory-related systems

- SLHS 584, 795a: Lab project, exam
- SLHS 586, 589r: Written exam
- SLHS 588a, 588b: Lab, written exam

B2. Promote hearing wellness, as well as the prevention of hearing loss and protection of hearing function by designing, implementing, and coordinating universal newborn hearing screening, school screening, community hearing, and occupational conservation and identification programs

- SLHS 584, 795a: Lab project, exam
- SLHS 586: Written exam

B3. Screen individuals for hearing impairment and disability/handicap using clinically appropriate, culturally sensitive, and age- and site-specific screening measures

- SLHS 584, 795a: Lab project, exam
- SLHS 586, 588a, 588b, 589r: Written exam

B4. Screen individuals for speech and language impairments and other factors affecting communication function using clinically appropriate, culturally sensitive, and age- and site-specific screening measures

- SLHS 586: Written exam

- SLHS 795a: Project, exam
- B5. Educate individuals on potential causes and effects of vestibular loss
- SLHS 586: Written exam
 - SLHS 588b: Lab, written exam
- B6. Identify individuals at risk for balance problems and falls who require further vestibular assessment and/or treatment or referral for other professional services
- SLHS 586: Written exam
 - SLHS 588b: Lab, written exam

Standard IV-C: Assessment

The student must have knowledge of:

- C1. Measuring and interpreting sensory and motor evoked potentials, electromyography, and other electrodiagnostic tests for purposes of neurophysiologic intraoperative monitoring and cranial nerve assessment
- SLHS 586: Written exam
 - SLHS 588a: Lectures, class discussion

The student must have knowledge and skills in:

- C2. Assessing individuals with suspected disorders of hearing, communication, balance, and related systems
- SLHS 562b, 581a, 581b: Class discussion, exam
 - SLHS 582, 586, 589r: Written exam
 - SLHS 588a, 588b: Lab, written exam
 - SLHS 588l: Lab projects
 - SLHS 596m: Oral & written assignments
 - SLHS 795a: Projects, exam
- C3. Evaluating information from appropriate sources and obtaining a case history to facilitate assessment planning
- SLHS 581b: Class discussion, exam
 - SLHS 582: Oral & written assignments
 - SLHS 586: Written exam
 - SLHS 587, 588l: Lab project
 - SLHS 588a: Lab, written exam
 - SLHS 596m: Oral & written assignments
 - SLHS 795a: Projects, exam
- C4. Performing otoscopy for appropriate audiological assessment/management decisions, determining the need for cerumen removal, and providing a basis for medical referral
- SLHS 586: Written exam
 - SLHS 588a, 588b: Lab, written exam
 - SLHS 588l: Lab projects
 - SLHS 589r: Class exercise, written exam
 - SLHS 795a: Project, exam
- C5. Conducting and interpreting behavioral and/or electrophysiologic methods to assess hearing thresholds and auditory neural function
- SLHS 562b, 581a, 581b: Class discussion, exam
 - SLHS 582, 596m: Oral & written assignments
 - SLHS 586, 589r: Written exam
 - SLHS 588a: Lab, written exam
 - SLHS 588l: Lab projects

- SLHS 795a: Projects, exam
- C6. Conducting and interpreting behavioral and/or electrophysiologic methods to assess balance and related systems
- SLHS 582, 596m: Oral & written assignments
 - SLHS 588b: Lab, written exam
 - SLHS 795a: Project, exam
- C7. Conducting and interpreting otoacoustic emissions and acoustic immittance (reflexes)
- SLHS 586, 589r: Written exam
 - SLHS 588a: Lab, written exam
 - SLHS 588l: Lab projects
 - SLHS 795a: Projects, exam
- C8. Evaluating auditory-related processing disorders
- SLHS 582, 596m: Oral & written assignments
 - SLHS 586, 589r: Written exam
 - SLHS 795a: Projects, exam
- C9. Evaluating functional use of hearing
- SLHS 581b: Class discussion, lab project, exam
 - SLHS 586: Written exam
 - SLHS 587: Lab project
 - SLHS 795a: Projects, exam
- C10. Preparing a report, including interpreting data, summarizing findings, generating recommendations, and developing an audiologic treatment/management plan
- SLHS 581b: Class discussion, in-class activities, lab, exam
 - SLHS 586, 589r: Written exam
 - SLHS 587, 588l: Lab project
 - SLHS 588a, 588b: Lab, written exam
 - SLHS 795a: Projects, exam
- C11. Referring to other professions, agencies, and/or consumer organizations
- SLHS 581b: Class discussion, in-class activities, lab, exam
 - SLHS 586, 589r: Written exam
 - SLHS 587, 588l: Lab project
 - SLHS 588a, 588b: Lab, written exam
 - SLHS 795a: Projects, exam

Standard IV-D: Intervention (Treatment)

The student must have knowledge and skills in:

- D1. The provision of intervention services (treatment) to individuals with hearing loss, balance disorders, and other auditory dysfunction that compromises receptive and expressive communication
- SLHS 581a: Class discussion, exam
 - SLHS 581b: Class discussion, paper, project, exam
 - SLHS 586, 596g: Written exam
 - SLHS 587: Lab project
 - SLHS 588b: Lab, written exam
 - SLHS 596m: Oral & written assignments
 - SLHS 795a: Projects, exam

D2. Development of a culturally appropriate, audiologic rehabilitative management plan that includes, when appropriate, the following:

a. Evaluation, selection, verification, validation, and dispensing of hearing aids, sensory aids, hearing assistive devices, alerting systems, and captioning devices, and educating the consumer and family/caregivers in the use of and adjustment to such technology

- SLHS 581a: Class discussion, exam
- SLHS 581b: Class discussion, lab project, paper, presentation, exam
- SLHS 586: Written exam
- SLHS 587: Lab project
- SLHS 596m: Oral & written assignments
- SLHS 795a: Projects, exam

b. Determination of candidacy of persons with hearing loss for cochlear implants and other implantable sensory devices and provision of fitting, mapping, and audiologic rehabilitation to optimize device use

- SLHS 581b: Class discussion, exam
- SLHS 586, 588a, 596g: Written exam
- SLHS 587: Lab projects
- SLHS 795a: Projects, exam

c. Counseling relating to psychosocial aspects of hearing loss and other auditory dysfunction, and processes to enhance communication competence

- SLHS 510, 581b: Class discussion, paper
- SLHS 586, 589r: Written exam
- SLHS 587: Lab project
- SLHS 596m: Oral & written assignments
- SLHS 795a: Projects, exam

d. Provision of comprehensive audiologic treatment for persons with hearing loss or other auditory dysfunction, including but not exclusive to communication strategies, auditory training, speech reading, and visual communication systems

- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 587: Lab project
- SLHS 795a: Projects, exam

D3. Determination of candidacy for vestibular and balance rehabilitation therapy to persons with vestibular and balance impairments

- SLHS 588b, 596m: Written exam

D4. Treatment and audiologic management of tinnitus

- SLHS 581a: Class discussion
- SLHS 587: Lab project
- SLHS 596m: Oral & written assignments
- SLHS 795a: Projects, exam

D5. Provision of treatment services for infants and children with hearing loss; collaboration/consultation with early interventionists, school based professionals, and other service providers regarding development of intervention plans (i.e., individualized education programs and/or individualized family service plans)

- SLHS 581b: Class discussion, group project
- SLHS 586: Written exam
- SLHS 795a: Projects, exam

D6. Management of the selection, purchase, installation, and evaluation of large-area amplification systems

- SLHS 581b: Class discussion, lab project
- SLHS 587: Lab project
- SLHS 795a: Projects, exam

D7. Evaluation of the efficacy of intervention (treatment) services

- SLHS 500: Class discussion, research proposal, presentation, exam
- SLHS 581b: Class discussion, paper, presentation, lab project, exam
- SLHS 586, 588b, 596g: Written exam
- SLHS 587: Lab project
- SLHS 596m: Oral & written assignments
- SLHS 795a: Projects, exam

Standard IV-E: Advocacy/Consultation

The student must have knowledge and skills in:

E1. Educating and advocating for communication needs of all individuals that may include advocating for the programmatic needs, rights, and funding of services for those with hearing loss, other auditory dysfunction, or vestibular disorders

- SLHS 510: Class discussion, papers
- SLHS 581b: Class discussion, lab project
- SLHS 586, 589: Written exam
- SLHS 587: Lab project
- SLHS 596j, 795a: Projects, exam

E2. Consulting about accessibility for persons with hearing loss and other auditory dysfunction in public and private buildings, programs, and services

- SLHS 581b: Class discussion, lab project
- SLHS 586: Written exam
- SLHS 587: Lab project
- SLHS 596j, 795a: Projects, exam

E3. Identifying underserved populations and promoting access to care

- SLHS 581b: Class discussion
- SLHS 586: Written exam

Standard IV-F: Education/Research/Administration

The student must have knowledge and skills in:

F1. Measuring functional outcomes, consumer satisfaction, efficacy, effectiveness, and efficiency of practices and programs to maintain and improve the quality of audiologic services

- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 587: Lab project
- SLHS 596g: Written exam
- SLHS 596j, 795a: Projects, exam
- SLHS 596m: Oral & written assignments

F2. Applying research findings in the provision of patient care (evidence-based practice)

- SLHS 500: Class discussion, research proposal, presentation, exam
- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 582, 588c, 596m: Oral & written assignments
- SLHS 586, 589r, 596g: Written exam
- SLHS 587: Lab project
- SLHS 596j, 795a: Projects, exam

F3. Critically evaluating and appropriately implementing new techniques and technologies supported by research-based evidence

- SLHS 581b: Class discussion, paper, presentation, exam
- SLHS 582, 588c, 596m: Oral & written assignments
- SLHS 587: Lab project
- SLHS 588a, 588b, 596g: Written exam
- SLHS 596j, 795a: Projects, exam

F4. Administering clinical programs and providing supervision of professionals as well as support personnel

- SLHS 510: Class discussion, papers
- SLHS 596j, 795a: Projects, exam

F5. Identifying internal programmatic needs and developing new programs

- SLHS 596j, 795a: Projects, exam
- SLHS 596m: Oral & written assignments

F6. Maintaining or establishing links with external programs, including but not limited to education programs, government programs, and philanthropic agencies

- SLHS 581b: Group project
- SLHS 584: Lab project, exam
- SLHS 586: Written exam
- SLHS 596j, 795a: Projects, exam
- SLHS 596m: Oral & written assignments

Standard V: Assessment

Students for certification must demonstrate successful achievement of the knowledge and skills delineated in Standard IV by means of both formative and summative assessments.

Standard V-A: Formative Assessment

The student must meet the education program's requirements for demonstrating satisfactory performance through ongoing formative assessment of knowledge and skills.

Implementation:

- Students and program faculties should use the ongoing assessment to help the student achieve requisite knowledge and skills. Thus, assessments should be followed by implementation strategies for acquisition of knowledge and skills.

Standard V-B: Summative Assessment

The student must pass the national examination adopted by ASHA for purposes of certification in audiology.

Implementation:

- Evidence of a passing score on the ASHA-approved national examination in audiology must be submitted to the ASHA National Office by the testing agency administering the examination. Acceptable exam results are those submitted for initial certification in audiology that have been obtained no more than 5 years prior to the submission of the certification application, and no more than 2 years after the application for certification is received by the Certification Unit of the ASHA National Office.

APPENDIX M. MATRIX SHOWING COURSEWORK MEETING KNOWLEDGE AND SKILLS IN SPEECH-LANGUAGE PATHOLOGY (p. 1 of 24)



CALIPSO
 Knowledge And Skills Acquisition (KASA) Summary Form
 Doe, Jane

Class of Test
 January 31 2013

Standards	Knowledge/Skill Met? (check)	Course # and Title	Practicum Experiences # and Title	Other (e.g. labs, research) (include descriptions of activity)
Standard III-A. The applicant must demonstrate knowledge of the principles of:				
· Biological Sciences				
· Physical Sciences				
· Mathematics				
· Social/behavioral Sciences				
Standard III-B. The applicant must demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases				
· Basic Human Communication Processes				
· Biological				

Doe, Jane

Page 1 of 24

Full example available at <http://slhsfac.arizona.edu/sites/default/files/CALIPSO%20SampleCC.pdf>

APPENDIX M. MATRIX SHOWING COURSEWORK MEETING KNOWLEDGE AND SKILLS IN AUDIOLOGY (p. 1 of 8)

Overview of Au.D. Curriculum Topic Coverage Relative to the ASHA 2011 Standards

	TOTAL	500#Introductory#Research#Methods#Speech#Hearing#Sciences#3	501#Professional#Issues#Speech#Language#Pathology#Audiology#1	510#Counseling#3	562#Anatomy#Physiology#Hearing#Auditory#Nervous#System#3	562#Psychophysiology#Cous.#3	565#Cous.#3#of#the#Speech#Hearing#Science#3	581#Auditory#Prosthe.#cs#3	581#Auditory#Prosthe.#cs#3	582#Acoustic#Hearing#Balance#3	584#Occup.#and#Community#Audiology#1	586#Pediatric#Audiology#4	587#Lab#Auditory#Prosthe.#cs#2	588#Physiological#Valu.#and#Hearing#System#3	588#Assessment#and#Rehabilit.#of#the#Balance#System#3	588#Electrophysiology#Hearing#Percep.#and#Cogn.#and#2	588#Laboratory#Electrophysiology#1	589#Advanced#Audiology#Valu.#and#3	596#Cochlear#Implants#3	596#Prac.#and#Management#2	596#Prac.#and#Management#2	596#Prac.#and#Management#2	795#Clinical#Issues#Audiology#4	COURSE#IN#PEECH#LANGUAGE#DEVELOPMENT	COURSE#IN#PEECH#LANGUAGE#DISORDERS	COURSE#IN#PEECH#RECEPTION	COURSE#IN#STATISTICS	COURSE#IN#PHARMACOLOGY	COURSE#IN#NEUROSCIENCE	RESEARCH#PROJECT	
The applicant must have knowledge of:																															
A1. Embryology and development of the auditory and vestibular systems, anatomy and physiology, neuroanatomy and neurophysiology, and pathophysiology	8				1					1			1																	1	
A2. Genetics and associated syndromes related to hearing and balance	9				1					1	1	1		1	1																
A3. Normal aspects of auditory physiology and behavior over the life span	7												1				1	1													
A4. Normal development of speech and language	3																							1							
A5. Language and speech characteristics and their development across the life span	2																							1							
A6. Phonologic, morphologic, syntactic, and pragmatic aspects of human communication associated with hearing impairment	2																														
A7. Effects of hearing loss on communication and educational, vocational, social, and psychological functioning	10					1			1		1	1	1																		
A8. Effects of pharmacologic and teratogenic agents on the auditory and vestibular systems	8																														
A9. Patient characteristics (e.g., age, demographics, cultural and linguistic diversity, medical history and status, cognitive status, and physical and sensory abilities) and how they relate to clinical services	8			1																											
A10. Pathologies related to hearing and balance and their medical diagnosis and treatment	8																														
A11. Principles, methods, and applications of psychometrics	4					1																									
A12. Principles, methods, and applications of psychoacoustics	5					1																									
A13. Instrumentation and bioelectrical hazards	5																														
A14. Physical characteristics and measurement of electric and other nonacoustic stimuli	4																														
A15. Assistive technology	5																														
A16. Effects of cultural diversity and family systems on professional practice	6	1																													
A17. American Sign Language and other visual communication systems	1																														
A18. Principles and practices of research, including experimental design, statistical methods, and application to clinical populations	9	1																													
A19. Legal and ethical practices (e.g., standards for professional conduct, patient rights, credentialing, and legislative and regulatory mandates)	10	1	1																												
A20. Health care and educational delivery systems	5																														
A21. Universal precautions and infectious/contagious diseases	4																														
The applicant must have knowledge and skills in:																															

APPENDIX N. PhD STUDENT OUTCOMES FOR THOSE GRADUATING 2005-06 – 2011-12

Start PhD	Area	Mentor	Qual Exam	Written Comp Exam	Oral Comp Exam	Dissert Defense	Grad Date	Yrs to comp	T32	F31	Post Doc	Current 2012
Fall 2001	Speech	Barkmeier	X	X	X	X	Dec 2005	4.5	no		Yes	Assistant Professor
Fall 2001	Speech	Barkmeier	X	X	X	X	May 2006	5.5	no		Yes	Assistant Professor
Fall 2002	Speech	Story	X	X	X	X	Dec 2006	4.5	no		Yes F32	Speech-Language Pathologist
Fall 2001	Speech	Hixon	X	X	X	X	Dec 2006	5.5	no		Yes	Associate Clinical Professor
Fall 2001	Lang	Bayles	X	X	X	X	Aug 2006	5.25	no		Yes	Assistant Professor
Fall 2003	Speech	Hoit	X	X	X	X	May 2007	4	no		Yes	Speech-Language Pathologist
Fall 2003	Lang	Plante	X	X	X	X	May 2008	5		F31	no	Assistant Professor
Fall 2003	Hearing	Cone	X	X	X	X	Aug 2008	5.5			Yes	Research Audiologist
Fall 2004	Lang	Beeson	X	X	X	X	May 2009	5			F32	Assistant Professor
Jan 2003	Lang/ Speech	Plante/Beeson/ Story	X	X	X	X	May 2009	6.5	no		no	Assistant Professor
Fall 2004	Lang	Beeson	X	X	X	X	Aug 2010	6.25	no		no	Research Associate
Sprg 2004	Speech	Story	X	Failed	--	--	--	--	--			Changed to MS in SLHS, grad 2006
Fall 2005	Hearing	Cone	X	X	X	--	--	--	no			Completed AuD only 2008
Fall 2005	Lang	Plante	X	X	X	X	May 2010	5	no		no	Towson University (currently getting certified in SLP)
Fall 2006	Lang	Plante	X	X	X	X	Aug 2011	5.25	no		no	Assistant Professor
Fall 2006	Speech	Story	X	X	X	X	Aug 2011	5.25		F31	Yes	
Fall 2006	Speech	Barkmeier/ Story	X	X	X	X	May 2012	6		F31	Yes	
Fall 2006	Hearing	Cone	X	X	X							Dissertation not complete
Fall 2006	Speech	Barkmeier	X	X	X	did not complete	---	---				Speech-Language Pathologist
Fall 2007	Hearing	Lotto	X	X	X	X	Dec 2012	5.5		F31	UA-Lecture	Seeking post-doc
Fall 2008	Speech	Barkmeier- Kraemer	X	--	--	--	--	--	T32			MS May 2009 CFY 11-12
Fall 2009	Hearing	Lotto	X	--	--	--	--	--	no			withdrew Spring 2009

APPENDIX O. PhD STUDENT OUTCOMES FOR THOSE CURRENTLY OR RECENTLY MATRICULATING

Start PhD	Area	Mentor	Qual Exam	Written Comp Exam	Oral Comp Exam	Dissert Defense	Grad Date	Yrs to comp	Funding F31 T32	F31	Notes
Fall 2007	Child Lang	Plante	X	on leave					T-32		MS 2008-10
Fall 2008	Child Lang	Plante	X	Cont status					T-32		
Fall 2009	Hearing	Lotto	X	X	X		in prog		F-31 in prep	F-31 in prep	
Fall 2009	Speech	Barkmeier / Story	X	X	X	Prospectus Sept 2012	in prog		F31	F31	
Fall 2009	Child Lang	Plante	X	Cont status					T-32		MS 2011 CFY 2011-12
Fall 2009	Child Lang	Plante	X	Cont status					T-32		
Fall 2009	Speech	Hoit	X	on leave CFY					T-32		MS Dec 2011 CFY 2012-13
Fall 2009	Hearing	Cone	X	on leave					T32		On leave
Fall 2010	Speech	Maas	X	Cont status							
Fall 2010	Child Lang	Alt	X	--					T-32		MS 2011, CFY 2011-12 – discontinue PhD
Fall 2011	Adult Lang	Beeson	X	Cont status							
Fall 2011	Speech	Fabiano-Smith	X	Cont status					T32		MS Dec 2012
Fall 2011	Hearing	Cone	X	Cont status					T32		
Fall 2012	Child Lang	Alt/Plante	X	Cont status					T-32		
Fall 2012	Hearing	Lotto	X	Cont status							
Fall 2012	Hearing	Cone	X	Cont status					T32	T32	

APPENDIX P: COMMUNITY AND PROFESSIONAL EDUCATIONAL OUTREACH

Workshops, Lectures and Other CE opportunities – Each year we offer several day and two-day long continuing education workshops to local professionals. Funding provided in part by Abbey J. Grunewald Foundation, Arizona Early Hearing Detection and Intervention Program and James S. and Dyan Pignatelli/Unisource Clinical Program for Audiologic Rehabilitation in Adults. All workshops support themselves through workshop fees.

Mar 3, 2006	<i>Central Auditory Pathways: Development, Plasticity and Processing</i> Approximately 60 participants .08 CEUs
Sept 15 & 16, 2006	<i>Southern Arizona Autism Workshops</i> Approximately 181 participants 1.15 CEU's
Mar 23, 2007	<i>Cochlear Implants and Habilitation Resources in Southern AZ for "Little Ears"</i> Approximately 80 participants .07 CEUs
Sept 27 & 28, 2007	<i>Grunewald-Blitz Combined Workshops: Impact of Mild and Unilateral Hearing Loss on Children and Management of Mild-Moderate Hearing Loss in Children</i> Approximately 152 participants 1.5 CEUs
Oct 17, 2008	<i>Promoting Learning without Trying</i> Approximately 69 participants .775 CEUs
Jul 16, 2009	Teaching "Social Thinking" and Related Social Skills Approximately 45 participants 0.6 CEUs
Oct 9, 2009	<i>Pediatric Interdisciplinary Feeding, Swallowing and Nutrition Team</i> Approximately 58 participants 0.8 CEUs
Jan 15 & 16, 2010	<i>Audiologic Rehabilitation for Adults: Evidence, Implementation & Resources</i> Approximately 60 participants 1.0 CEUs
Sept 17, 2010	<i>Speech Sound Disorders in Children: Cleft Palate and Childhood Apraxia of Speech</i> Approximately 112 participants 0,7 CEUs
Dec 3, 2010	<i>Tinnitus: Causes, Evaluation & Treatment</i> Approximately 68 participants 0.7 CEUs
Sept 16, 2011	<i>Evidence-Based Assessment and Treatment of Bilingual Children with Communication Disorders</i> Approximately 81 participants 0.75 CEUs
Nov 14, 2011	<i>Hearing, Listening and Learning: New perspectives on auditory processing in individuals with normal and impaired hearing</i> Approximately 85 participants 0.75 CEUs
Jan 20, 2012	<i>The Deaf/Hard of Hearing Child's Journey to Listening and Spoken Language – A Workshop for Parents and Professionals</i> Approximately 92 participants 0.65 CEUs
Mar 16, 2012	<i>An Update on Treatments for Aphasia, Alexia, and Agraphia</i> Approximately 40 participants 0.6 CEUs
Sept 21, 2012	<i>Pediatric TBI: From Injury Through Recovery</i> Approximately 91 participants 0.7 CEUS
Oct. 19, 2012	<i>Cognition and Hearing Aid Decisions for Children and Older Adults</i> Approximately 86 participants 0.7 CEUS
Nov 10, 2012	New Research Findings in Speech, Language and Hearing Science <i>Math and Language: Academic Implications for Children with Specific Language Impairment (Seven students also presented posters.)</i> Approximately 50 participants 0.2 CEUs

The Anthony B. DeFeo Lecture in Speech-Language Pathology Series made possible through the generosity of Drs. Jeannette D. Hoit and Thomas J. Hixon

- Aug 24, 2007 *Please Help Me I'm Falling: Effects of Cognitive-Linguistic Load on Parameters of Gait and Balance and Injurious Fall Risk in Parkinson Disease*
Leonard L. LaPointe, PhD, Florida State University College of Medicine
- Sept 5, 2008 *The Role of Genetic and Malformation Syndromes in Autism Spectrum Disorders*
H. Eugene Hoyme, MD, University of South Dakota Sanford School of Medicine
- Sept 11, 2009 *Puzzles and Mysteries: Unraveling the Origins of Childhood Apraxia of Speech*
Lawrence D. Shriberg, PhD, University of Wisconsin- Madison
- Aug 27, 2010 *Principled Care for Children with Motor Speech Disorders: Theory to Practice to Evidence*
Megan Hodge, PhD, RSLP, The University of Alberta
- Aug 26, 2011 *The Dynamic Adolescent Brain: Interaction of typical development with acquired and developmental communication disorders*
Lyn Turkstra, PhD, University of Wisconsin-Madison

Annual Conference of the Auditory Cognitive Neuroscience Society: 2006 - 2013

Each year in January, researchers in speech, hearing, neuroscience, musical cognition, and cognitive science converge on Tucson for the annual conference of the Auditory Cognitive Neuroscience Society (ACNS) hosted by Dr. Andrew Lotto, Associate Professor in Speech, Language & Hearing Sciences. The 2012 conference included an impressive list of presenters includes researchers from Spain, England, Canada and 13 different states. Topics ranged from the auditory systems of fish to the benefits of musical training to the function of brain rhythms in speech perception. In addition to the oral presentations, the conference includes wellattended poster sessions and a variety of social events.

Free Community Lectures in Speech, Language, and Hearing Sciences

- Oct 31, 2009 *Hearing Loss in Adults: Causes, Consequences and Solutions*
James Dean, AuD, University of Arizona
Frances P. Harris, PhD, University of Arizona
- Mar 27, 2010 *Hear it! Learn it! Say it! Promoting speech-language-auditory skill development in your hearing impaired child (birth to 5 years)*
James Dean, AuD, University of Arizona
Cass Faux, MS, University of Arizona
Linda Norrix, PhD, University of Arizona
- Apr 10, 2010 *Living Well with Hearing Loss*
Frances P. Harris, Ph.D., University of Arizona
Adult Loss of Hearing Association panel, Tucson AZ
- Apr 27, 2010 *Living Well with Hearing Loss (presented in Green Valley)*
Frances P. Harris, Ph.D., University of Arizona
Adult Loss of Hearing Association panel, Tucson AZ
- Jan 7, 2011 *Hearing Loss Help – Implantable Devices (CI & BAHA) & Tinnitus*
Thomas Muller, Au.D., University of Arizona

Jan 8, 2011 Adult Loss of Hearing Association Panel
Hearing Loss Help – Implantable Devices (CI & BAHA) & Tinnitus
 Thomas Muller, Au.D., University of Arizona

Feb 10, 2011 *AAC Evaluation*
 Cass Faux, MS, CCC-SLP, University of Arizona

Mar 24, 2011 Adult Loss of Hearing Association Panel
Focus on Communication: For People with Hearing Loss, their Families and Friends
 Frances P. Harris, Ph.D., University of Arizona
 Thomas Muller, Au.D., University of Arizona

Mar 26, 2011 Adult Loss of Hearing Association Panel
Focus on Communication: For People with Hearing Loss, their Families and Friends (presented in Green Valley)
 Frances P. Harris, Ph.D., University of Arizona
 Thomas Muller, Au.D., University of Arizona

Oct 15, 2011 Adult Loss of Hearing Association Panel
Technology for Better Hearing: Why Wait?
 Frances P. Harris, PhD, University of Arizona
 Tom Muller, AuD, University of Arizona

Feb 10, 2011 *AAC Evaluation*
 Cass Faux, MS, CCC-SLP, University of Arizona

Mar 24, 2012 *Memory and Aging: How does memory change in normal aging and can anything be done to improve memory function?*
 Gayle DeDe, PhD, University of Arizona
 Tom Muller, Aud, University of Arizona
 Frances P. Harris, PhD, University of Arizona

Oct 29, 2012 *What Do You Do When Hearing Aids are Not Enough?*
 Frances P. Harris, Ph.D., University of Arizona
 Thomas Muller, Au.D., University of Arizona

Oct 30, 2012 *What Do You Do When Hearing Aids are Not Enough?* (presented in Green Valley)
 Frances P. Harris, Ph.D., University of Arizona
 Thomas Muller, Au.D., University of Arizona

Apr 14, 2012 Adult Loss of Hearing Association Panel
Hearing The UnHeard
 Josh Swiller, writer and advocate

Oct 13, 2012 *Tinnitus: What's the Buzz? Causes, Research, and Solutions*
 Julie Peterson, MS, University of Arizona
 David Velenovsky, PhD, University of Arizona
 Lynn Iversen, BA, University of Arizona

Oct 19, 2012 *Eye Technology and other Speech Generating Devices for persons with Motor Speech Disorders*
 Cass Faux, MS, CCC-SLP, University of Arizona

NSSLHA Educational Forum – Evening Continuing Education for the Community

<u>Date</u>	<u>CEUs</u>	<u>Title</u>
Sept 2005	.02	The Nature and Treatment of Naming Impairments in Aphasia
Oct 2005	.02	Language Disorders and IDEA
Dec 2005	.02	Early Intervention and the Tohono O’Odham Nation
Jan 2006	.02	The Audiologist and Vestibular Disorders: New Views, Old Movements
Feb 2006	.02	Diagnostic Decisions and Therapy Plans: Cleft Palate/Velopharyngeal Problems
Mar 2006	.02	Early Hearing Detection in Arizona. Looking Forward to New Opportunities
Mar 2006	.02	Teaching Healthy Vocal Habits to Preschool Children
Sept 2006	.02	Primary Progressive Aphasia (PPA) and Semantic Dementia
Oct 2006	.02	Assessment and Treatment of Individuals with Right Hemisphere Damage (RHD)
Nov 2006	.03	Overview of the Lidcombe Program
Nov 2006	.02	Dysphagia Treatment
Jan 2007	.02	Early Risk for Reading Disability: What SLPs Need to Know
Feb 2007	.02	Computer Software for Speech-Language Pathology
Mar 2007	.02	Speech Intelligibility: Clinical Treatment Approaches
Apr 2007	.02	Evaluation and Management of Speech Breathing Disorders
Sept 2007	.02	Diagnosis of Normal vs. Impaired Language Function
Oct 2007	.02	Auditory Cognitive Science
Jan 2008	.02	An Overview of Word Learning in Bilingual Children
Feb 2008	.02	Evaluation and Treatment of Childhood Apraxia of Speech
Apr 2008	.02	Sentence Production Treatment in Aphasia
Jan 2009	.02	Good News in the Kingdom: The growth of psychosocial and community approaches to aphasia.
Mar 2009	.02	Conditions of Practice in Treatment for Motor Speech Disorders
Apr 2009	.02	World-Wide Affordable Hearing Aid Project
Dec 2009	.02	Classroom-Based Vocal Hygiene Program: What we’ve learned thus far
Feb 2010	.02	Group Therapy Approaches for Individuals Living with Aphasia
Feb 2010	.02	Update on cochlear Implants & the Diagnosis and Treatment of Auditory Neuropathy/Dys-synchrony
Nov 2010	.02	Evidence-Based Assessment and Intervention with Children from Culturally and Linguistically Diverse Populations
Feb 2011	.02	Primary Progressive Aphasia: Speech and Language, Anatomy and Etiology
Apr 2012	.02	Explaining Resilience in Noise: Improving Quality of Life with Hearing Loss
Oct 2012	.02	Introduction to Normal Swallow Function: Clinical Evaluation of Swallowing, and Acute Dysphagia Management
Nov 2012	.02	Assessing Bilingual Children: Challenges and Suggestions

Health Fairs Attended by SLHS Faculty

	St. Andrews Pima Community College
Apr 18, 2010	Eldercare Fair Tom Muller, Fran Harris, Linda Norrix
May 23, 2010	Eldercare Fair Elder Care Is Not Just For Elders Gayle DeDe
Oct. 20, 2010	UA Mini Wellness Fair at Campus Rec Cass Faux
Mar 2-3, 2012	Pima Council on Aging – AGES'n STAGES Active Adult Trade Show Faculty, staff and students participated in the two-day event
Mar. 18, 2012	Family Caregiver and Senior Resource Fair Stephen Wilson St. Philip's In the Hills Episcopal Church
Apr. 22, 2012	The aging brain: What goes right, what goes wrong, & what you can do about it. Stephen Wilson and Gayle DeDe St. Philip's In the Hills Episcopal Church "Turn Down The Volume" Noise Awareness on UA mall Fran Harris

Tucson Hope Fest The Tucson Hopefest is a large-scale health and services fair for low income and homeless Tucsonans. Each year our clinical faculty and students provide hearing and speech screenings and referrals for approximately 100 individuals ranging from newborn to elderly.

Pima County Hearing Aid Bank

The Pima County Hearing Aid Bank is a cooperative program of the Community Outreach Program for the Deaf, Midtown Sertoma, and the University of Arizona Hearing Clinic through which low-income elderly adults can obtain reconditioned used hearing aids at very little cost, \$70 per aid. The U of A Hearing Clinic provides all clinical care from evaluation, through fitting and follow up for years. We serve approximately **70 new patients per year** and spend approximately **600 hours per year** providing these services.

La Clinica at St. Andrews, Nogales

Once a month, our clinical faculty and students provide hearing evaluations and help with the provision of hearing aid verification through this multidisciplinary clinic for low income children given special permission to cross the border from Nogales Mexico. We have been involved in this program for more than 15 years.

Living WELL with Hearing Loss

This program promotes hearing wellness for adults with hearing loss and their frequent communication partners. In addition to on-campus service, there are numerous outreach initiatives at Senior Centers, Recreational Centers for young people, Assisted Living facilities, a group for younger adults with hearing loss (Hear@Tucson: <http://hearattucson.com/>), a website (<http://lwhl.arizona.edu>), and numerous brochures and materials.

APPENDIX Q. FACULTY BIOSKETCHES

Tenure-Track Faculty

Alt
Beeson
Bunton
Cone
Dai
DeDe
Fabiano-Smith
Hoit
Lotto
Maas
Marrone
Plante
Story
Wilson

Senior Lecturers

Dean
Velenovsky

Research Scientist

Christiansen

Clinical Faculty

Casteix
Faux
Harris
Hawley
Kaplan
Kiernan
McGrath
Muller
Norrix
Peterson
Wymer

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Alt, Mary	POSITION TITLE Associate Professor of Speech, Language, and Hearing Sciences
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Oberlin College, Ohio	B.A.	1990	English Literature
University of New Orleans	Coursework	1992-1993	Early Childhood Ed.
University of Arizona	M.S.	1997	Speech & Hearing Sci.
University of Arizona	Ph.D.	2002	Speech & Hearing Sci.
University of Arizona	Post Doc.	2003	Speech & Hearing Sci.

NOTE: I did not begin my research career until **FALL 2006** due to family obligations.

A. Personal Statement

My lab is named the L4 Lab. Those four L's stand for the topics that are of most interest to me: language, learning, literacy, lexicon. My research is centered on answering this question: How do people learn words and the concepts associated with those words? The answers to this question are fundamental to our understanding of language development and disorders of language and learning. All human beings need to learn words and concepts to communicate our basic needs. However, the need to learn words and concepts does not end in early childhood once we learn to talk. All people need to be proficient at learning words and concepts in order to be successful in school, professional settings, or learning new hobbies. Despite the importance of this skill set, there is much to be discovered about the processes underlying vocabulary development. It is my mission to better understand these processes so we can apply that knowledge towards helping people who are not successful at learning new words and concepts. My lab approaches this larger problem from three angles: 1) word learning (learning the names of things), 2) concept learning (learning the meanings of the words), and 3) clarifying how learning manifests in people who are bilingual. My research often integrates these three components, and is extending findings from our lab into clinically-driven research.

B. Honors and Awards

- 2009 f of Speech, Language, Hearing Science pre-tenure research contribution award. Awarded the pre-tenure faculty member who has the highest number of points in research on his/her Annual Performance Review.
- 2010 Finalist (one of 5 University-wide) for the 5-Star-Faculty Award from the University of Arizona Honor's College. This is a student-nominated award where finalists are honored at the Honors Awards Ceremony.
- 2012 Department of Speech, Language, and Hearing Science's nominee for the University of Arizona's College of Science Early Career Distinguished Teaching Award

C1. Publications and Scholarly Work (Jan. 2005 – present)

- 1) Alt, M. & Plante, E. (2006). Factors that influence lexical and semantic fast-mapping of young children with specific language impairment. *Journal of Speech, Language, and Hearing Research*, 49, 941-954.
- 2) Alt, M. & Guttman, M. (2009). Fast mapping semantic features: performance of adults with normal language, history of disorders of spoken and written language, and attention deficit hyperactivity disorder on a word learning task. *Journal of Communication Disorders*, 42, 347-364. PMID: PMC2771630
- 3) Alt, M. (2011). Phonological working memory impairments in children with specific language impairment: Where does the problem lie? *Journal of Communication Disorders*, 44, 173-185. PMID: PMC3021769
- 4) Alt, M. & Spaulding, T. (2011). The effect of time on word learning: An examination of decay of the memory trace and vocal rehearsal in children with and without specific language impairment. *Journal of Communication Disorders*, 44, 640 – 654. PMID: PMC3215898 [Available on 2012/11/1]
- 5) Antonucci, S. & Alt, M. (2011). A lifespan perspective on development of concrete concepts: Does a sensory/motor model have the potential to bridge the gap? *Cognitive, Affective, and Behavioral Neuroscience*, 11, 551-572.
- 6) Alt, M. & Suddarth, R. (2012). Learning novel words: Detail and vulnerability of initial representations for children with specific language impairment and typically-developing peers. *Journal of Communication Disorders*, 45, 84-97. PMID: PMC3288194 [Available on 2013/3/1]
- 7) Alt, M. & Moreno, M.H. (2012). The effect of test presentation on children with Autism Spectrum Disorder and neurotypical peers. *Language, Speech, and Hearing Services in Schools*, 43, 121-131.
- 8) Alt, M., Meyers, C., & Ancharski, A. (2012). Using principles of learning to inform language therapy design for children with specific language impairment. *International Journal of Language and Communication Disorders*, 47, 487-498.
- 9) Alt, M., Arizmendi, G.D., Beal, C.R., & Hurtado, J.S. (2012) The effect of test translation on the performance of second grade English learners on the KeyMath-3. *Psychology in the Schools*. Published 26 November, 2012: DOI:10.1002/pits.21656.
- 10) Alt, M., Meyers, C., & Martinez, C. (accepted for publication). Factors that influence fast mapping in children exposed to Spanish and English. *Journal of Speech, Language, and Hearing Research*.

C2. Invited Talks, Jan. 2008-present

- 1) Alt, M. (2008). Harnessing the power of research to inform clinical practice. Invited talk presented at the: Promoting learning without trying. Symposium. Grunewald-Blitz Workshop, University of Arizona, Tucson, AZ.
- 2) Alt, M., Bent, T., Bonhila, H.S., & Storkel, H. (2009) The write stuff: Lessons for success in research funding. Invited talk presented at: American Speech Language Hearing Association (ASHA), New Orleans, LA.
- 3) Alt, M. (2010) Learning theory: Another evidence base for our practice. Invited talk presented at: Arizona State Speech Language Hearing Association (ArSHA), Phoenix, AZ.
- 4) Alt, M. (2010). Factors that influence word learning in bilingual children. Invited colloquium presentation for the Department of Linguistics, University of Arizona, Tucson, AZ.
- 5) Alt, M. (2011). Lesson I have learned. Invited talk presented at: American Speech Language Hearing Association Lessons for Success Conference, April 2011, Rockville, MD.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008 – 1; 2009 – 5; 2010 – 6; 2011 – 5; 2012 - 3

D. Active Research Support

RO1 DC010140-01A1 Hoit (PI) 4/10-4/15

NIH/NIDCD

Velopharyngeal function during oral sound production in healthy children

This project will be a longitudinal study of velopharyngeal function during speech development in typically-developing children in order to determine age of closure and factors that influence VP function.

Role: Co-Investigator

RO1 DC010784-01A1 Gray (PI) 2/11-2/16

NIH/NIDCD

Working memory and word learning in children with typical development and language impairment.

This project will model working memory and word learning performance in groups of children with typical language skills and language impairment in order to advance understanding of how children learn and help in the development of effective treatments and instructional techniques.

Role: Co-Investigator; PI on subcontract.

E. Major Service or Committee Assignments

Local/Community:

2008- present Host of L4 Community Forum. This series allows researchers and community Speech Language Pathologists to discuss the intersection of research and current practice. Researchers present relevant research findings, and facilitate discussion of the topic. Speech Language Pathologists who attend receive Continuing Education Units, which are mandatory for state licensure. Sessions to date: **17**

2010 Represented the Department at First Things First meeting regarding incentives for Speech Language Pathologists to work with the 0-5 population.

2011-present Represented the Department on Arizona Department of Education State Task Force to develop new eligibility guidelines for speech language services in the school and give input on the issue of Speech Language Technicians.

University, College, Department:

2006- 2012 Chair of Colloquium committee, SLHS

Summer 2007 Clinical Faculty Search committee, SLHS

2009 Search committee for Professor of Practice, SLHS

2010 Search committee for Assistant Professor, SLHS

2011-present Curriculum Committee, SLHS

2012-present Graduate Admissions Committee, SLHS

Professional/Scientific

2009 Ad hoc associate editor: *Journal of Speech, Language, and Hearing Research*

2009 Invited participant ASHFoundation review panel for the New Investigators Award and New Century Scholars Award

2010 Ad hoc associate editor: *Language, Speech, Hearing Services in Schools*

2011 Reviewed poster submissions for American Speech Language Hearing Association's Schools Conference

2011 Ad hoc Associate Editor for *Journal of Speech, Language, and Hearing Research*

2012 Reviewed for ASHFoundation's Student Research Grant in Early Childhood Language Development

2012 Ad hoc reviewer for National Science Foundation Doctoral Dissertation Research Grant

2012 –present Associate Editor: *Language, Speech, Hearing Services in Schools*

Ad hoc reviewer for: *American Journal of Speech-Language Pathology; International Journal of Language and Communication Disorders; International Journal of Pediatric Otorhinolaryngology; Journal of Communication Disorders; Journal of Speech, Language, and Hearing Research; Language, Learning, and Development; Language, Speech, Hearing Services in Schools; Mental Illness; Research in Developmental Disabilities.*

BIOGRAPHICAL SKETCH

NAME Beeson, Pégagie M.	POSITION TITLE Professor
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EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Kansas	B.S.	05/75	Speech Pathology
University of Kansas	M.A.	08/76	Speech Pathology
University of Arizona	Ph.D.	08/90	Speech, Lang., Hearing Sciences

A. Personal Statement

Early in my career as a speech-language pathologist, I felt particular compassion toward individuals who experienced sudden onset of language impairment due to brain damage. I wanted to do all that I could to maximize their language recovery, and I was also intrigued regarding how the damaged brain was able to support recovery over time. It amazes me that a few decades later, my funded research is directed specifically toward these questions. In my lab, we develop and test behavioral treatments for spoken and written language impairments. Our work is unique in the attention given to written language, and the potential benefit of interactive use of residual written and spoken language. The results of our work to date have helped to clarify treatment sequences appropriate to maximize the communication skills of individuals across a range of language profiles.

A complementary line of research is directed toward understanding the cognitive processes and neural substrates that support language. Our research with individuals with acquired impairments of reading and spelling has helped to clarify critical brain regions for specific aspects of written language processing. Our current work using functional magnetic resonance imaging is directed toward understanding the neural support for language recovery. By examining the response to treatment as well as associated changes in regional brain activity, we gain better understanding of the mechanisms of recovery

B. Honors and Awards

- 1987 Faculty/Staff Award: Outstanding Contribution to Native American Students, University of Arizona
- 1996 Chair, ASHA Special Interest Division 2: Neurophysiology & Neurogenic Communication Disorders
- 1998 Voted to Academy of Aphasia
- 1999 Elected to Governing Board, Academy of Neurologic Communication Disorders and Sciences
- 2001 Fellow, American Speech-Language-Hearing Association
- 2008 Member, Research Group on Aphasia & Cognitive Disorders, World Federation of Neurology
- 2009 Outstanding Mentor Award from the Graduate & Professional Student Association, Univ. of Arizona
- 2012 Distinguished Career Teaching Award, College of Science, University of Arizona

C1. Publications and Scholarly Work (Jan. 2005 – present)

Refereed Journal Articles

1. Fridriksson, J., Holland, A.L., & Beeson, P.M. (2005). Spaced retrieval treatment in anomia. *Aphasiology*, 19, 99-109.
2. Orjada, S. & Beeson, P.M. (2005). Concurrent treatment for reading and spelling in aphasia. *Aphasiology*, 19. 341-351.

3. Beeson, P.M., Magloire, J., & Robey, R.R. (2005). Letter-by-letter reading: Natural recovery and response to treatment. *Behavioural Neurology*, *16*, 191-202.
4. Beeson, P.M. & Egnor, H. (2006). Combining treatment for written and spoken naming. *Journal of the International Neuropsychological Society*, *12*, 816-827.
5. Beeson, P.M. & Robey, R.R. (2006). Evaluating single-subject treatment research: Lessons learned from the aphasia literature. *Neuropsychology Review*, *16*, 161-169.
6. Henry, M.L., Beeson, P.M., Stark, A.J., & Rapcsak, S.Z. (2007). The role of left perisylvian cortical regions in spelling. *Brain and Language*, *100*, 44-52.
7. Rapcsak, S.Z., Henry, M.L., Teague, S., Carnahan, S.D., & Beeson, P.M. (2007). Do dual-route models accurately predict reading and spelling performance in individuals with acquired alexia and agraphia? *Neuropsychologia*, *45*, 2519-2524.
8. Antonucci, SA, Beeson, PM, Labiner, D, & Rapcsak, SZ. (2008). Naming and semantic knowledge in patients with left inferior temporal lobe lesions, *Aphasiology*, *22* (3), 281-304.
9. Raymer, A.M., Beeson, P.M., Holland, A., Kendall, D., Maher, L.M., Martin, N., Murray, L., Rose, M., Thompson, C. K., Turkstra, L., Altmann, Boyle, M., Conway, T., & Hula, W. (2008). Translational research in aphasia: From neuroscience to neurorehabilitation. *Journal of Speech, Language, and Hearing Research*, *51*, S259-S275.
10. Henry, M.L., Beeson, P.M., & Rapcsak, S.Z. (2008) Treatment for anomia in semantic dementia. *Seminars in speech and language*, *29*(1), 60-70.
11. Beeson, P.M., Rising, K., Kim, E.S., & Rapcsak, S.Z. (2008). A novel method for examining response to spelling treatment. *Aphasiology*, *22*, 707-717.
12. Kim, E.S., Bayles, K.A., Beeson, P.M. (2008). Instruction processing in young and older adults: Contributions of memory span. *Aphasiology*, *22*, 753-762.
13. Henry, M.L., Beeson, P.M., & Rapcsak, S.Z. (2008). Treatment for lexical retrieval in progressive aphasia. *Aphasiology*, *22*, 828-838.
14. Rapcsak, S.Z., Beeson, P.M., Henry, M.L., Leyden, A., Kim, E., Rising, K., Andersen, S. Cho, H. (2009). Phonological dyslexia and dysgraphia: cognitive mechanisms and neural substrates. *Cortex*, *45*, 575-591.
15. Beeson, P.M., Rising, K., Kim, E. & Rapcsak, S.Z. (2010). A treatment sequence for phonological alexia/agraphia. *Journal of Speech, Language, Hearing Research* *53*, 450-468.
16. Andersen, S.M., Rapcsak, S.Z., & Beeson, P.M. (2010). Cost function masking during normalization of brains with focal lesions: Still a necessity? *NeuroImage*, *53*(1), 78-84.
17. Beeson, P.M., King, R.M., Bonakdarpour, B., Henry, M.L., Cho, H., & Rapcsak, S.Z. (2011). Positive effects of language treatment for the logopenic variant of primary progressive aphasia. *Journal of Molecular Neuroscience*, *45*, 724-736.
18. Kim, E.S., Rapcsak, S.Z., Andersen, S.M., & Beeson, P.M. (2011). Multimodal alexia: Neuropsychological mechanisms and implications for treatment. *Neuropsychologia*, *49*(13), 3551-3562.
19. Henry, M., Beeson, P.M., Alexander, G. & Rapcsak, S.Z. (2012). Written language impairments in primary progressive aphasia: A reflection of damage to central semantic and phonological processes. *Journal of Cognitive Neuroscience*, *24* (2), 261-275.
20. Meinzer, M., Cappa, S., Crosson, B., Beeson, P.M., Crinion, J., Kiran, S., & Thompson, C.K. (2012). Neuroimaging in aphasia treatment research: Consensus and practical guidelines for data analysis.

Chapters

1. Beeson, P.M. & Rapcsak, S.Z. (2006). The aphasias. In P.J. Snyder and P.D. Nussbaum (Eds.), *Clinical neuropsychology: A pocket handbook for assessment, Second Edition* (pp. 436-459). Washington, D.C.: American Psychological Association.
2. Beeson, P.M. & Rapcsak, S.Z. (2006). Treatment of alexia and agraphia. In J. H. Noseworthy (Ed), *Neurological therapeutics: Principles and practice, Second Edition* (pp. 3045-3060). London: Martin Dunitz.
3. Beeson, P.M. & Holland, A.L. (2007). Aphasia groups in a university setting. In R. Elman (Ed), *Group treatment of neurogenic communication disorders: The expert clinician's approach, Second Edition*. San Diego, CA: Plural Publishing.

4. Beeson, P.M. & Henry, M.L. (2008). Comprehension and production of written words. In R. Chapey (Ed.). *Language intervention strategies in adult aphasia, Fifth Edition* (pp. 654-688). Baltimore, MD: Wolters Kluwer/Lippincott, Williams & Wilkins.
5. Beeson, P.M. & Rapcsak, S.Z. (2010). Neuropsychological assessment and treatment of writing disorders. In J. Gurd, Kischka, and J. Marshall (Eds.) *Oxford Handbook of Clinical Neuropsychology, Second Edition* (pp. 323-348). Oxford, UK: Oxford University Press.
6. Beeson, P.M., Rising, K. & Rapcsak, S.Z. (2011). Acquired impairments of reading and writing.
7. L.L. LaPointe (Ed.) *Aphasia and related neurogenic language disorders, 4th Edition*. NY: Thieme Publishers (pp. 121-137).
8. Beeson, P.M. & Rapcsak, S.Z. (2011). Agraphia. In the *Encyclopedia of Clinical Neuropsychology*. Kreutzer, J., DeLuca, J., & Caplan, B. (Eds.) (pp. 55-60). NY: Springer-Verlag.
9. Rapcsak, S.Z. & Beeson, P.M. (2011). Alexia. In the *Encyclopedia of Clinical Neuropsychology* (pp. 77-83). NY: Springer-Verlag.

Textbooks

1. Plante, E. & Beeson, P.M. (2008). *Communication and communication disorders: A clinical introduction, Third Edition*. Needham Heights, MA: Allyn & Bacon.
2. Plante, E. & Beeson, P.M. (2012). *Communication and communication disorders: A clinical introduction, Fourth Edition*. Needham Heights, MA: Allyn & Bacon.

C2. Invited Talks, Jan. 2008-present

2008 - 2; 2010 - 2; 2011- 2; 2012- 4

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008 - 12; 2009 - 14; 2010 - 6; 2011- 5; 2012- 2

D. Active Research Support

R01DC07646-06 (Beeson) 2/01/11 – 1/31/16

NIH/NIDCD

Developing an Evidence-Based Treatment Continuum for Spoken and Written Language

This project examines the treatment outcomes from sequences of behavioral interventions designed to maximize recovery from aphasia, alexia, and agraphia in adults.

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community Service

- Board Member, Pima Council on Aging (2007-2011)
- Public Relations Committee Member, Pima Council on Aging (2007-2011)
- State Representative for the National Aphasia Association

University Service

- Elected Member, Department Advisory Committee, Dept. of Speech, Language, & Hearing Sciences (2008-2011)
- Member, University of Arizona ADVANCE Leadership Workgroup 1 (2008-2011)
- Member, Graduate Admissions and Policy Committee, Department of Speech, Language, Hearing Sciences, University of Arizona (2008-2011)
- Chair, Ad Hoc Search Committee for Senior Lecturer Positions, Department of Speech, Language, Hearing Sciences, University of Arizona (2008-2009)
- Chair, Ad Hoc Search Committee for Assistant Professor in Language and Neuroimaging, Department of Speech, Language, Hearing Sciences, University of Arizona (2009-2010)

Department of Speech, Language, and Hearing Sciences

- Chair, Ad Hoc Search Committee for Assistant/Associate Professor in Child Language, Department of Speech, Language, Hearing Sciences, University of Arizona (2009-2010)
- Department Head, Speech, Language, and Hearing Sciences (2011-current)
- Member, Steering Committee, School of Mind, Brain, and Behavior (2011-current)

Professional/Scientific Service

- Panel Member, Language and Communication Study Section, National of Health (2007-2011)
- Member, Program Committee, Discipline-Wide Research for the 2008 American Speech-Language-Hearing Association Convention (2008)
- Member, Program Committee, Adult Language Committee for the 2009 American Speech-Language-Hearing Association Convention (2009)
- Reviewer, VA Merit Grant Program (2010)
- Ad Hoc Reviewer, Communication Disorders, National Institutes of Health (current)

BIOGRAPHICAL SKETCH

NAME Bunton, Kate	POSITION TITLE Associate Professor, Speech, Language, and Hearing Sciences		
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Iowa, Iowa City, IA	B.S.	12/90	Speech & Hearing Sciences
University of Wisconsin-Madison	M.S.	5/93	Communicative Disorders
University of Wisconsin-Madison	Ph.D.	5/99	Communicative Disorders
University of Arizona	Post-Doc	8/00-8/02	Speech & Hearing Sciences

A. Personal Statement

My research focuses on improving basic knowledge about normal speech production as well speech development and disordered speech production. Knowledge in these areas, I believe, will influence the development of clinical treatment programs for individuals with reduced speech intelligibility. My program of research uses several different methodologies to examine speech production. These include audio data from acoustic recordings, airflow data, and movement data using a real-time motion capture system. Computational modeling is also used to examine the relation between speech production, speech acoustics, and speech perception.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)**C1. Publications and Scholarly Work (Jan. 2005 – present)**

- Bunton, K. (2005). Patterns of lung volume use during extemporaneous speech tasks by persons with Parkinson disease. *Journal of Communication Disorders*, 38, 331-348.
- Bunton, K. (2006). Fundamental frequency as a perceptual cue for vowel identification in speakers with Parkinson disease. *Folia Phoniatrica et Logopaedica*, 58, 323-339.
- Keintz, C., Bunton, K., & Hoit, J. (2007). Influence of visual information on the intelligibility of dysarthric speech. *American Journal of Speech-Language Pathology*, 16, 222-234.
- Bunton, K., Duffy, J., Kent, R., Rosenbek, J. & Kent, J. (2007) Listener agreement for auditory-perceptual ratings of dysarthria. *Journal of Speech, Language, and Hearing Research*, 50, 1481-1495.
- Bunton, K. & Keintz, C. (2008). The use of a dual-task paradigm for assessing speech intelligibility in clients with Parkinson disease. *Journal of Medical Speech-Language Pathology*, 16, 141-155.
- Bunton, K., Leddy, M. & Miller, J. (2009). Phonetic intelligibility testing in adults with Down Syndrome. *Down Syndrome Research and Practice*, 12(3), 230-240.
- Bunton, K. (2008). Speech versus Nonspeech: Different Tasks, Different Neural Organization. *Seminars in Speech and Language*, 29, 267-275.
- Bunton, K., & Story, B.H. (2009). Identification of synthetic vowels based on selected vocal tract area functions, *Journal of the Acoustical Society of America*, 125, 19-22.
- Samlan, R., Webster, K., Jones, B., Bunton, K., & Tufano, R. (2010). Supracricoid partial laryngectomy: Swallowing, voice, and speech outcomes. *Laryngoscope*, 119,10-16.

10. Bunton, K. & Story, B. (2010) Identification of synthetic vowels based on time-varying vocal tract area functions. *Journal of the Acoustical Society of America-Express Letters*, 127, EL 147-152.
11. Story, B. & Bunton, K. (2010) Relation of vocal tract shape, formant transitions, and consonant identification. *Journal of Speech, Language, and Hearing Research*, 53, 1514-1528.
12. Bunton, K., Hoit, J., & Gallagher, K. (2011). A simple technique for determining velopharyngeal status during speech production. *Seminars in Speech and Language*, 32, 69-79.
13. Bunton, K. & Leddy, M. (2011). An evaluation of articulatory working space in vowel production of adults with Down syndrome. *Clinical Linguistics & Phonetics*, 25, 321-334.
14. Weismer, G., Yunusova, Y., & Bunton, K. (2012). Measures to evaluate the effects of DBS on speech production. *Journal of Neurolinguistics*, 25(2), 74-94.
15. Bunton, K. & Story, B. (2011). The relation of nasality and nasalance to nasal port area based on a computational model. *The Cleft Palate-Craniofacial Journal*. doi: 10.1597/11-131.
16. Story, B. & Bunton, K. (accepted for publication). Simulation and identification of vowels based on a time-varying model of the vocal tract area function, to be published in *Vowel Inherent Spectral Change*, G. Morrison and P. Assman, Eds. Springer.

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

- Bunton, K. & Samlan, R.A. (September, 2010) Speech sound disorders in children: Cleft palate. Grunewald Blitz Clinic for Communication Disorders in Children, Tucson, AZ.
- Bunton, K. & Samlan, R. (2011). Speech sound production and resonance disorders in children with cleft palate: assessment and intervention: Arizona Speech-Language-Hearing Association Convention, Tempe, AZ.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 3; 2009-2; 2010- 4; 2011- 3; 2012- 5;

D. Active Research Support

- | | |
|---|-----------------------------|
| R01 DC04789 (B. H. Story, PI)
NIDCD/NIH
Quantitative Modeling of Speech
Role: Co-Investigator | 2006-2012
(no-cost ext.) |
| R01-DC10140 (J.D. Hoit, PI)
NIDCD/NIH
Velopharyngeal Function for Oral Sound Production in Healthy Children
Role: Co-Investigator | 2010-2015 |
| R01 DC011275 (B. H. Story, PI)
NIDCD/NIH
An Acoustic Model of Child-like Speech
Role: Co-Investigator | 2011-2016 |
| BCS-1145011 (B.H. Story, K. Bunton, Co-PIs)
2012-2015
NSF
A Model of Vowel Production in Children
Role: Co-Pi, Design and Collection of Longitudinal Database | |

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2003-2009 Board of Directors, Arizona Chapter of the American Parkinson Disease Association

University:

2006-2012 Chair, Human Subjects Review Committee, Department of Speech, Language, and Hearing Sciences
2009 Reviewer, University of Arizona Faculty Small Grant program
2010 Judge, Student Showcase program sponsored by the Graduate and Professional Student Council, University of Arizona
2011-present Chair, Curriculum Committee, Department of Speech, Language, and Hearing Sciences
2011-present Member, Curriculum Committee, Neuroscience and Cognitive Science Undergraduate Major

Professional/Scientific:

2008-2009 Chair, Speech Science Program Committee, America Speech-Language-Hearing Association Convention
2008-present Member, Speech Communication Technical Committee, Acoustical Society of America
2011-present Chair, Conference on Motor Speech Disorders
2011-2012 Guest Associate Editor, *American Journal of Speech-Language Pathology*
2011-present Associate Editor-Speech, *Journal of Speech, Language, and Hearing Research*
Reviewer for *Journal of Speech, Language, and Hearing Research*, *Journal of the Acoustical Society of America*, *Folia Phoniatica et Logopaedica*, *American Journal of Speech-Language Pathology*, *American Academy of Otolaryngology-Head and Neck Surgery Journal*

BIOGRAPHICAL SKETCH

NAME Cone, Barbara	POSITION TITLE Professor		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of California Santa Barbara	B.A.	08-73	Speech and Hearing Sci
University of California Santa Barbara	M.A.	08-75	Speech and Hearing Sci
University of Texas at Dallas	Ph.D.	12-79	Communication Disorders

A. The overall goals of my research are to: 1) understand how infants and children develop the ability to hear and understand speech; and 2) use this understanding to create clinically useful tests of speech perception to test infants and children with hearing loss. I combine brain wave tests (known as auditory evoked potentials) with those of inner ear function (known as otoacoustic emissions) and behavioral (known as psychoacoustic) methods to provide converging evidence about the development of perceptual abilities in infants and children.

I bring to this endeavor expertise in human electrophysiology, pediatric audiology, and in designing and conducting large-scale clinical research projects. I have 25+ years of experience in auditory electrophysiology in humans, particularly in infants, and the use of electrophysiological measures in pediatric hearing assessment. I have expertise in using auditory evoked potentials from the brainstem to the cortex (including event-related potentials) to investigate basic mechanisms of hearing (threshold, binaural hearing, laterality) and its development.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

ASHA Fellow, 2007

Erskine Fellow, University of Canterbury, Christchurch, New Zealand, 2010

Distinguished Alumnus Award, School of Behavioral and Brain Sciences, University of Texas at Dallas, 2011.

C1. Publications and Scholarly Work (Jan. 2005 – present)

Refereed Journal Articles

Garinis, A., Glattke, T and **Cone, B** (2011) The MOC reflex during active listening to speech. *Journal of Speech Language and Hearing Research* 54: 1464-1476.

Markyvech V, Asbjornsen AE, Lind O, Plante E and **Cone, B** (2011) Dichotic listening in and otoacoustic emissions: shared variance between cochlear function and dichotic listening performance in adults with normal hearing. *Brain and Cognition* 76: 332-339.

Cone B, Tobin S., Wake, M and Poulakis, Z. (2010) "Risk Factors and Clinical Characteristics in Elementary School Children with Slight-Mild Sensorineural Hearing Loss. *Ear and Hearing* 31 (2), 202-212.

Cone, B. and Garinis (2009) Infant ASSR and speech feature discrimination. *Journal of the American Academy of Audiology*, 20 (10) 629-643.

Sininger, Y and **Cone, B** (2008) Comment on "Ear asymmetries in middle ear, cochlear and brainstem responses in human infants" [*J Acoust Soc Am* 123, 1504-1512] *J Acoust Soc Am* 124 (2) 1401.

Sininger Y and **Cone-Wesson B** (2006) Lateral asymmetry in the ABR of neonates: Evidence and mechanisms. *Hearing Research* 212, 203-311.

Wunderlich JL and **Cone-Wesson, BK** & Shepherd, R (2006) Maturation of the cortical auditory evoked potential in infants and children. *Hearing Research* 212, 195-202.

Wunderlich, JL, Cone-Wesson, BK (2006) Maturation of the cortical auditory evoked potential in infants and children: A review. *Hearing Research* 212, 212-223

Cone-Wesson, B. (2005) Prenatal alcohol and cocaine exposure: influences on cognition, speech, language and hearing. *Journal of Communication Disorders* 38 (4) 279-302.

Chapters

Cone, B and Dimitrijevic, A(2009) The Auditory Steady State Response in J Katz, L Medwetsky, R Burkard and L Hood (Eds) *Handbook of Clinical Audiology*. Lippincott, Williams and Wilkins, Philadelphia.

Cone, B (2008) The Electrophysiology of auditory neuropathy spectrum disorder. In J. Northern (ed). *Guidelines for Identification and Management of Infants and Young Children with Auditory Neuropathy Spectrum Disorder*. (monograph)The Bill Daniel's Center for Children's Hearing, The Children's Hospital of Denver, Denver, Colorado.

Cone-Wesson B (2008) Subject variables: state, anesthesia, age and attention. In Rance, G. and John, M.S. (Eds) *The Auditory Steady-State Response: Generation, recording and clinical application*. Plural Publishers, San Diego.

Rance G & Cone-Wesson B (2008) Clinical applications of ASSRs. In Rance, G. and John, M.S. (Eds) *The Auditory Steady-State Response: Generation, recording and clinical application*. Plural Publishers, San Diego.

Dimitrijevic A & Cone-Wesson B (2008) ASSR suprathreshold tests of auditory ability. In Rance, G. and John, M.S. (Eds) *The Auditory Steady-State Response: Generation, recording and clinical application*. Plural Publishers, San Diego.

Zenker-Castro F, Barajas De Prat J, Cone-Wesson B, (2008) ASSRs and their role in hearing device fitting. In Rance, G. and John, M.S. (Eds) *The Auditory Steady-State Response: Generation, recording and clinical application*. Plural Publishers, San Diego.

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

University of Auckland, June 2010 Invited Lecture: /u/-/i/-/u/-/a/-/a/ And other aspects of Infant Speech Feature Perception.

University of Melbourne, School of Audiology June 2010 Invited Lecture /u/-/i/-/u/-/a/-/a/ And other aspects of Infant Speech Feature Perception.

University of Melbourne, Dept. of Otolaryngology June 2010 Invited Lecture Attention and Efferent Modulation of the Afferent Auditory System

Australian National University, Eccles Neuroscience Institute, July 2010, Invited Lecture Attention and Efferent Modulation of the Afferent Auditory System

University of Canterbury, Christchurch, NZ August 2010 Erskine Lecture: Auditory Neuroscience in the Cradle: Universal newborn hearing screening and its benefits to children, families and communities.

NZ Institute of Language Brain and Behavior: July 2010 Invited Lecture Listen Up! Electrophysiological evidence of efferent control of the auditory system.

Albert Einstein College of Medicine, Kennedy Institute, November 2010, Invited Lecture Attention and Efferent Modulation of the Afferent Auditory System

Arizona State University November 2010: Invited Lecture Speech Evoked Potentials from the brainstem and cortex.

International Evoked Response Audiometry Study Group, Biennial Symposium, Sao Paulo, Brazil, June 6-12 (2009)
Keynote Address: Attention! Efferent Control of the Auditory System

Alabama Speech and Hearing Association: Keynote Speaker ASSR for infant hearing assessment. 2008

University of North Carolina: Featured Speaker Auditory Neuropathy: The Electrophysiology of Auditory Neuropathy Spectrum Disorder; consensus conference outcomes; Clinical Physiology of the Auditory Cortex. 2008

American Academy of Audiology-Learning Lab: Clinical Electrophysiology (6 hour short course).2008

Maine-New Hampshire Academy of Audiology: Keynote and Featured Speaker. The Electrophysiology of Auditory Neuropathy Spectrum Disorder; consensus conference outcomes; Clinical Physiology of the Auditory Cortex; ABR and ASSR for infant hearing evaluations. 2008

Auditory Neuropathy Consensus Conference, Lake Como, Italy: Electrophysiology of Auditory Neuropathy Spectrum Disorder; Consensus panel member. 2008

ASHA: Featured Speaker: Update '08, Evidence base for pediatric audiology. 2008

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 2	2011- 3
2009- 3	2012- 2
2010 - 2	

D. Active Research Support

2010-2012 Innovations in the electrophysiologic assessment of hearing in infants. AUCD-NCBDDD, RTOI 2010-003.

2008-2013 From clinicians to researchers: developing clinical investigators in speech-language pathology and audiology. NIH-NIDCD T32 DC 009398

2007-2012 Electrophysiology of Infant Speech Perception, NIH-NIDCD K24 DC 008826

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

Music Advisory Committee, St. Philip's in the Hills Episcopal Church; Homeowner's Association Board Member, Serenidad Homeowners Association

University:

Graduate Council, University of Arizona, 2002-2007.
Ad hoc Grant Review Committee for College of Science 2002-2007

Professional/Scientific:

ASHA Special Interest Division #6, Hearing Science and Research, Steering Committee, 2005- 2012.
International Evoked Response Audiometry Study Group, Council Member, 1993-present.
Associate editor for Journal of Speech, Language and Hearing Research, 2004 to 2008

NAME Dai, Huanping		POSITION TITLE Associate Professor of Audiology, Department of Speech, Language, and Hearing Sciences, University of Arizona	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Dept of Psychology, Northeastern University, Boston, MA.	PhD	1989	Experimental Psychology
Dept of Psychology, Northeastern University, Boston, MA.	MA	1987	Experimental Psychology
Acoustics Institute, Nanjing University, Nanjing, China	MS (ABD)	1986	Acoustics
Dept of Physics, Nanjing University, Nanjing, China	BS	1983	Physics

A. Personal Statement

My research is concerned with auditory perception of complex sounds by human listeners. On the empirical side, we design and carry out behavioral (psychophysical) experiments to study listeners' ability to extract useful information from various sounds, and how this ability is affected by hearing disorders. On the theoretical side, we construct computational models to characterize the listeners' individual listening behavior, and to predict their performance in perceptual tasks. While the primary focus of our research is on the basic-science aspects of auditory perception, we also work on applied issues related to hearing, including the application of statistical and psychophysical principles and methods to the diagnoses of hearing disorders, and the signal processing for amplification.

C1. Publications and Scholarly Work (Jan. 2005 – present)

Refereed Journal Articles

- Dai, H. and Micheyl, C. (2012) Separating the contributions of primary and unwanted cues in psychophysical studies. *Psychological Review*, 119(4), 770-788.
- Dai, H. and Micheyl, C. (2012) Measuring decision weights in recognition experiments with multiple response alternatives: Comparing the correlation and multinomial-logistic-regression methods. *J. Acoust. Soc. Am.*, 132, 3418-3427
- Dai, H. and Micheyl, C. (2011) Psychometric functions for pure-tone frequency discrimination, *J. Acoust. Soc. Am.*, 130, 263-272
- Dai, H. and Richards, V.M. (2011) On the theoretical limit of error for estimating psychometric functions, *Attention, Perception, & Psychophysics*, 73, 919-926.
- Dai, H. (2010) Harmonic pitch: Dependence on the resolved partials, spectral edges, and combination tones, *Hearing Research*. 270, 143-150.
- Dai, H. and Micheyl, C. (2010) Psychophysical Reverse Correlation with Multiple Response Alternatives, *Journal of Experimental Psychology: Human Perception and Performance* 36(4), 976–993.
- Dai, H. and Micheyl, C. (2010) On the choice of adequate randomization ranges for limiting the use of unwanted cues in same–different, dual-pair, and oddity tasks, *Attention, Perception, & Psychophysics*, 72 (2), 538-547.
- Dai, H. and Kidd, Jr., G. (2009) Limiting unwanted cues via random rove applied to the yes-no and multiple-alternative forced choice paradigms, *J Acoust Soc Am.* 126(2): EL62–EL67.

- Micheyl, C. and Dai, H. (2009) Likelihood ratio, optimal decision rules, and relationship between proportion correct and d' in the dual-pair AB-versus-BA identification paradigm, *Attention, Perception, & Psychophysics*, 71(6): 1426–1433.
- Dai, H. (2008) On suppressing unwanted cues via randomization, *Attention, Perception and Psychophysics*, 70 (7), 1379-1382.
- Micheyl, C. and Dai, H. (2008) A general area theorem for the same-different paradigm, *Attention, Perception and Psychophysics*, 70 (5), 761-764.

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

- 06/2011: University of California, Irvine, CA
01/2011: ACNS, University of Arizona, Tucson, AZ

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 2; 2010- 3; 2012- 5

E. Major Service or Committee Contributions (Jan. 2008 – present)

University, College, Department:

2009-2010, Doctoral Admissions Committee, SLHS.
2010-2011, AUD Admissions Committee, SLHS
2011-present, IRB Committee, chair,/co-chair, SLHS
2012-present, Teaching Labs Committee, chair, SLHS

Professional/Scientific:

2012: Co-chair of the organizing committee, 2012 IEEE International Conference of Audio, language, and Image Processing
2011: Co-chair of the publishing committee, 2011 IET International Communication Conference on Wireless Mobile & Computing
2010: Co-chair of the publishing committee, 2010 IEEE International Conference of Audio, language, and Image Processing
2008-2010: Technical Committee, Psychological & Physiological Acoustics, Acoustical Society of America.

Reviewer for:

Psychological Review
Journal of the Acoustical Society of America
IEEE Trans. Biomed. Eng.
Attention, Perception, & Psychophysics
Journal of Speech, Language, and Hearing Research
Hearing Research
Acta Acustica united with Acustica
Memory and Cognition
Spatial Vision
Seeing and Perceiving
Journal of the Association for Research in Otolaryngology

BIOGRAPHICAL SKETCH

NAME DeDe, Gayle Lucia	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
McGill University	B.A.	1996	Psychology
Boston University	M.S.	2002	SLHS
Boston University	Ph.D.	2007	SLHS

A. Personal Statement.

My research is focused on explaining how people understand sentences. Sentence comprehension is a highly complex process, but people typically are able to understand spoken and written language quickly and effortlessly. I am interested in the moment-by-moment processes involved in building a mental representation of a spoken or written sentence, and in how these processes change in people who are normally aging and and people with brain damage. I am also interested in describing how general cognitive processes such as memory relate to sentence comprehension ability.

B. Honors and Awards

- 2003 American Speech and Hearing Foundation New Century Scholar Doctoral Scholarship
- 2003 Sargent College Dean's Award, Boston University Science & Technology Day
- 2003 NIDCD Travel Fellow, Clinical Aphasiology Conference
- 2005
- 2008 Invited attendee to the 6th Annual Research Conference: Lessons for Success – Developing the Emerging Scientist co-sponsored by ASHA and the NIH, March 2008.
- 2008 Advancing Academic Research Careers Award from American Speech Language Hearing Association
- 2010 "Most Clinically Relevant Coursework" award from the University of Arizona local chapter of the National Student Speech Language Hearing Association.
- 2011 Invited participant in ASHFoundation Grant Review and Reviewer Training.
- 2011 Invited participant in NIDCD-sponsored workshop for new clinician-investigators in communication disorders: Strategies for Success.

C1. Publications and Scholarly Work (Jan. 2005 – present)

1. Caplan, D., DeDe, G., & Brownell, H. (2006). Effects of syntactic features on sentence–picture matching in Broca's aphasics: A reply to Draai and Grodzinsky. *Brain and Language*, *96*(2), 129-134.
2. Caplan, D., DeDe, G., & Michaud, J. (2006). Task-independent and task-specific syntactic deficits in aphasic comprehension. *Aphasiology*, *20*, 893-920.
3. DeDe, G. & Caplan, D. (2006). Factor analysis of aphasic syntactic comprehension disorders. *Aphasiology*, *20*, 123-135.
4. Caplan, D., Waters, G.S. & DeDe, G. (2007). Specialized verbal working memory for language comprehension. In A. Conway, C. Jarrold, M. Kane, A. Miyake, & J. Towse, (Eds.), *Variations in working memory*. New York: Oxford University Press.
5. Caplan, D., Waters, G.S., Kennedy, D., Alpert, N., Makris, N., DeDe, G., Michaud, J., & Reddy, A. (2007). A study of syntactic processing in aphasia II: Neurological aspects. *Brain and Language*, *101*(2), 151-177.

6. Caplan, D., Waters, G.S., DeDe, G., Michaud, J., & Reddy, A. (2007). A study of syntactic processing in aphasia I: Behavioral aspects. *Brain and Language*, 101(2), 103-150.
7. DeDe, G. (2010). Utilization of Prosodic Information in Syntactic Ambiguity Resolution. *Journal of Psycholinguistic Research*, 39(4), 345-374.
8. DeDe, G. & Richtsmeyer, E. (2010). Syntactic and linguistic-based approaches. In L. LaPointe (Ed), *Aphasia and Related Neurogenic Language Disorders*, 4th Edition. Thieme Medical Publishers.
9. Gutman R, DeDe G, Michaud J, Liu JS, & Caplan D. (2010). Rasch models of aphasic performance on syntactic comprehension tests. *Cognitive Neuropsychology*, 27(3), 230-244.
10. Gutman, R., DeDe, G., Caplan, D., & Liu, J.S. (2011). Rasch model and its extensions for analysis of aphasic deficits in syntactic comprehension. *Journal of the American Statistical Association*, 106(496), 1304-1316.
11. Caplan, D. DeDe, G., Waters, G., Michaud, J., & Tripodis, Y. (2011) Effects of age, speed of processing, and working memory on comprehension of sentences with relative clauses. *Psychology and Aging*, 26, 439-450.
12. DeDe, G. (2012). Lexical and Prosodic Effects on Syntactic Ambiguity Resolution in Aphasia. *Journal of Psycholinguistic Research*, 41(5), 387-408.
13. DeDe, G. (2012). Effects of word frequency and modality on sentence comprehension impairments in people with aphasia. *American Journal of Speech Language Pathology*, 21, S103-S114.
14. DeDe, G. (2012). Verb transitivity bias affects on-line sentence reading in people with aphasia. Published Nov 1 2012. DOI: 10.1080/02687038.2012.725243

C2. Invited Talks, Jan. 2008-present

1. DeDe, G. (June, 2009). Traumatic Brain Injury in Pediatric Populations. Presentation to Vail School District All Special Education Staff Day.
2. DeDe, G. (October, 2012). Memory and Aging. Presented at the University of Arizona Audiology Workshop, Cognition and Hearing Aid Decisions for Children and Older Adults.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 9; 2009- 0; 2010- 0; 2011- 1; 2012- 4

D. Active Research Support

K23 DC010808 (G DeDe, PI) 03/2011-03/2016

NIDCD/NIH

Sentence Comprehension Impairments in Aphasia

Role: PI

E. Major Service or Committee Contributions (Jan. 2008 – present)

University:

2008-present: National Student Speech Language and Hearing Association, Local Chapter Co-Advisor

2008-present: Member, Master's Admissions and Policy Committee

2011-present: Chair, Professional Exams Committee

2010-2011: Chair, Student Awards Committee

Professional/Scientific:

2010, 2011: Review for ASHA, Students Preparing for Academic & Research Careers (SPARC) Award.

2011: Ad Hoc, Scientific Grant Reviewer for Veteran's Administration.

2011: Member, Scientific Grant Reviewer for American Speech and Hearing Foundation

2008-present: Reviewer for Aphasiology; Journal of Memory and Language; Journal of Speech, Language, and Hearing Research; Neurocase; Psychology and Aging; Journal of Psycholinguistic Research, Journal of Communication Disorders, American Journal of Speech Language Pathology

BIOGRAPHICAL SKETCH

NAME Fabiano-Smith, Leah	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
State University of New York College at Fredonia Fredonia, New York	B.S.	05/00	Speech-Language Pathology
State University of New York College at Fredonia Fredonia, New York	M.S.	08/01	Speech-Language Pathology
Temple University Philadelphia, Pennsylvania	PhD	08/06	Communication Sciences
University of California San Diego and San Diego State University San Diego, California	Postdoctoral Training	08/08	Theoretical Linguistics

A. Personal Statement

My research is focused on measuring characteristics of speech difference and speech disorder in bilingual Spanish-English speaking children. In my laboratory, we examine both typical and disordered aspects of bilingual phonology in both English and Spanish with the aim of developing evidence-based methods of assessment and intervention for this population. My research uses phonetic transcription and acoustic analysis to examine audio recordings of child speech. We apply both quantitative methods (e.g., Percent Consonants Correct (PCC); percent occurrence of phonological error patterns) and qualitative methods (e.g., phonetic inventory analysis; analysis of cross-linguistic effects) to identify and measure similarities and differences between monolingual and bilingual phonological acquisition. Both nonparametric and parametric statistical analyses are applied to my data to examine how, and to what degree, the two speech sound systems of bilingual children interact during the preschool years. The overarching goal of my work is to decrease the over-identification of bilingual children for speech-language therapy services.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Donation of \$1,000 to the Bilingual Phonology Lab from Elena Babatsouli, University of Crete, Greece
National Institutes of Health (NIH) Loan Repayment Program awardee – Division of Minority Health Disparities, 2011-2013
Selected by ASHA Special Interest Division I for having one of the highest convention program review scores in a specific topic area, 2007
Two-year postdoctoral fellowship, The Center for Research in Language, University of California San Diego, 2006-2008
Travel award for the Symposium on Research in Child Language Disorders (SRCLD), 2003-2007
Travel award for the annual convention of the American Speech, Language, and Hearing Association (ASHA), 2005
Second place for the best student research presentation at the International Clinical Phonetics and Linguistics Association (ICPLA) Conference, Lafayette, Louisiana, February 2004
Tuition award and research assistant appointment, Temple University, 2002-2006

C1. Publications and Scholarly Work (Jan. 2005 – present)

Chapters

1. Fabiano-Smith, L. & Goldstein, B. (2010c). Assessment and intervention in bilingual children. In S. Levey (Ed.) *Language Development, Disorders, and Differences*. Sage Publishing, Inc.

Refereed Journal Articles

1. Goldstein, B.; Fabiano, L.; & Washington, P.S. (2005). Phonological skills in predominantly English-speaking, predominantly Spanish-speaking, and bilingual Spanish-English speaking children. *Language, Speech, and Hearing Services in Schools*, 36. 201-218.
2. Fabiano, L. & Goldstein, B. (2005). Phonological cross-linguistic effects in bilingual Spanish-English speaking children. *Journal of Multilingual Communication Disorders*, 3 (1). pp. 56-63.
3. Miller, J.; Iglesias, A.; Heilman, J.; Fabiano, L.; Nockerts, A., & Francis, D. (2006). Oral language and reading in bilingual children. *Learning Disabilities Research and Practice*, 21 (1).
4. Bunta, F.; Fabiano-Smith, L.; Goldstein, B., & Ingram, D. (2009). Phonological whole-word measures in three-year-old bilingual children and their age-matched monolingual peers. *Clinical Linguistics and Phonetics*, 23 (2). 156-175.
5. Fabiano-Smith, L. & Barlow, J. (2010). Interaction in bilingual phonological acquisition: Evidence from phonetic inventories. *International Journal of Bilingual Education and Bilingualism*, 13 (1). 1-17.
6. Fabiano-Smith, L. & Goldstein, B. (2010a). Early, middle, and late developing sounds in monolingual and bilingual children: An exploratory study. *American Journal of Speech- Language Pathology*, 19. 1-12.
7. Fabiano-Smith, L. & Goldstein, B. (2010b). Phonological acquisition in bilingual Spanish-English speaking children. *Journal of Speech, Language, and Hearing Research*, 53.1-19.
8. Fabiano-Smith, L. & Bunta, F. (2012). Voice onset time of voiceless bilabial and velar stops in three-year-old bilingual children and their age-matched monolingual peers. *Clinical Linguistics and Phonetics*, 26(2). 148-163.
9. MacLeod, A.; Fabiano-Smith, L.; Boegner-Pagé, S., & Fontollet, S. (in press). The role of
10. minority language context on bilingual vocabulary development among French-German bilingual children. *Child Language Teaching and Therapy*.
11. Fabiano-Smith, L.; Shuriff, R.; Barlow, J.A., & Goldstein, B. (to appear). Dialect density in bilingual Puerto Rican Spanish-English speaking children. *Linguistic Approaches to Bilingualism*.

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

1. Fabiano-Smith, L. (2008, April). Speech and language intervention in bilingual children. Oral presentation for the Adelante! Online seminar series. Bilingual Therapies, Inc. www.bilingualtherapies.com.
2. Working with Bilingual Children: Practical Information You Need to Know (2009, March). Speech and Hearing Association of the Hudson Valley. Kingston, NY. Six-hour workshop.
3. Fabiano-Smith, L. (2009, March). Phonological acquisition in bilingual children. Oral presentation for the CUNY Graduate Center, Department of Communication Sciences and Disorders. New York, NY.
4. Fabiano-Smith, L. (2009, September). Early-, middle-, and late-developing sounds: An exploratory investigation into typical phonological acquisition in bilinguals. Oral presentation at New York University (NYU) Department of Communicative Sciences and Disorders. New York NY.
5. Fabiano-Smith, L. (2009, December). Evidenced-based assessment and intervention with culturally and linguistically diverse children. Presentation for the National Student Speech, Language, and Hearing Association (NSSLHA). SUNY New Paltz, New Paltz, NY.
6. Fabiano-Smith, L. (2010, March). Acquisition of the stop-spirant alternation in monolingual and bilingual children: A preliminary investigation. Oral presentation for the CUNY Graduate Center Psycholinguistics Supper Series. New York, NY.
7. Fabiano-Smith, L. (2010, September). Interaction in bilingual phonological acquisition: Evidence from Puerto Rican Spanish. Oral presentation at the University of Arizona Linguistics Colloquium. Tucson, AZ.
8. Fabiano-Smith, L. (2010, November). Evidenced-based assessment and intervention with culturally and linguistically diverse children. Presentation for the National Student Speech, Language, and Hearing Association (NSSLHA). University of Arizona. Tucson, AZ.

9. Fabiano-Smith, L. (2011, April). Bilingual phonological assessment. Oral presentation for the annual conference of the Arizona Speech, Language, and Hearing Association (ArSHA). Tempe, AZ.
10. Fabiano-Smith, L. (2011, July). Theory, research, and practice in bilingual speech-language pathology. Oral presentation in the Department of Communication Sciences and Disorders at Northern Arizona University. Flagstaff, AZ.
11. Evidence-based assessment and treatment of bilingual children with communication disorders (2011, September). University of Arizona Grunewald-Blitz Speech and Hearing Clinic. Tucson, AZ. Six-hour workshop.
12. Fabiano-Smith, L.; Oglivie, T.; Famoyegun, A.; Gullett, V., & Bayley, C. (2012, February). Which comes first, the stop or the spirant? A quasi-longitudinal study of bilingual children. Oral presentation given in the Department of Linguistics. University of Arizona. Tucson, AZ.
13. Fabiano-Smith, L. (2012, September). Desarrollo típico de fonología en los niños bilingües Español-Inglés: Como distinguir diferencia del lenguaje del trastorno del lenguaje. Oral presentation at the XI Curso Andino de Trastornos del Aprendizaje: Instituto Colombiano de Neurociencias [Neuroscience Institute of Colombia]. Bogotá, Colombia.
14. Fabiano-Smith, L. (2012, September). Evaluación y manejo de los aspectos fonológicos en niños bilingües entre 2 y 5 años con trastornos. Oral presentation at the XI Curso Andino de Trastornos del Aprendizaje: Instituto Colombiano de Neurociencias [Neuroscience Institute of Colombia]. Bogotá, Colombia.
15. Fabiano-Smith, L. (2012, December). Evidence-based assessment and intervention for phonological disorders in bilingual children. Oral presentation for Texas A & M University, College of Education and Human Development.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008 - 3; 2009 - 3; 2010 - 4; 2011 - 6; 2012 - 2

D. Active Research Support

Initial Consonant Deletion in Spanish-Speaking Children: Typical or Disordered?

The University of Arizona Foundation and the Office of the Vice President for Research, Graduate Studies, and Economic Development Faculty Seed Grant Program (Fall 2011-present)

Leah Fabiano-Smith, P.I.

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

- Provided weekly free bilingual hearing and language screenings in the Tijuana Preschool District, 2006-2008
- Provided weekly free bilingual speech and language screenings at the Agribusiness Child Development Center (ABCD) Head Start program, New Paltz, NY, 2008-2010
- Fabiano-Smith, L. (2011, October). Evidence-based assessment with bilingual children. Presentation for the Department of Speech-Language Pathology at the Tucson Unified School District. Tucson, AZ.
- Laboratory workshop for the University of Arizona Desert Rats, May 2011
- Laboratory workshop for the University of Arizona MedStart Program, July 2011
- Laboratory workshop for the Wildcat Charter School for the University of Arizona, September, 2011
- Arizona State Department of Education *Committee on Diagnostic Eligibility for Speech-Language Pathology Services*, 2011-present
- Fabiano-Smith, L. (2012, October). Evidence-based intervention with bilingual children. Presentation for the Department of Speech-Language Pathology at the Tucson Unified School District. Tucson, AZ.
- Fabiano-Smith, L. (2012, November). Speech-language pathology with bilingual preschoolers: Practical information. Oral presentation provided to alumni for CEU credit at the University of Arizona
- Department of Speech, Language, and Hearing Sciences homecoming celebration. Tucson, AZ

University:

1. Departmental Institutional Review Board (IRB) committee member, Speech, Language, and Hearing Sciences, 2010- 2011
2. Departmental Institutional Review Board (IRB) Chair, Speech, Language, and Hearing Sciences, 2011-present
3. Reviewer for University of Arizona Faculty Seed Grant Program – Office of the Vice President for Research Graduate Studies, and Economic Development, 2012
4. Graduate program admissions committee, Speech, Language and Hearing Sciences, 2012-present
5. Development of the *Bilingual Certificate Program* in the Department of Speech, Language, and Hearing Sciences, 2012-present

Professional/Scientific:

1. Reviewer for the *Journal of Speech, Language, and Hearing Research*, *American Journal of Speech-Language Pathology*, *Clinical Linguistics and Phonetics*, *International Journal of Language and Communication Disorders*, *Language, Speech, and Hearing Services in Schools*, *International Journal of Speech-Language Pathology*, *Early Childhood Research Quarterly*, and the *Journal of Multilingual Communication Disorders*
2. American Speech-Language-Hearing Association Member, 2002-present
3. International Clinical Phonetics and Linguistics Association, 2003-present
4. The Hispanic Caucus of the American Speech, Language, and Hearing Association (ASHA), 2011-present

BIOGRAPHICAL SKETCH

NAME Hoit, Jeannette D.	POSITION TITLE Professor		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Pasadena City College	A.A.	06/1973	Liberal Arts
University of California at Los Angeles	B.A.	06/1975	Anthropology
San Diego State University	M.A.	05/1980	Speech Pathology
University of Arizona	Ph.D.	05/1986	Speech & Hearing Sci
Harvard University	Postdoctoral	1989-90	Respiratory Physiology

A. Personal Statement

My research is focused on speech physiology in healthy people, as well as in people with speech disorders. Some of my studies have addressed questions related to the normal aging process and how speech changes as we grow older. Other studies have addressed questions related to the normal development of speech skills in infants and young children. Much of my research on speech disorders has centered on those disorders that are caused by disease or injury to the nervous system, especially those that affect the ability to breathe. For example, I have investigated the speech of people with spinal cord injury, amyotrophic lateral sclerosis (Lou Gerhig's disease), and others whose breathing is so compromised that they must use ventilators to be able to breathe and speak. This work has resulted in the development of new ways to improve ventilator-assisted speech.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Faculty of Science Outstanding Advising Award (1991)
 College of Science Innovation in Teaching Award (1998)
 Outstanding Article of the Year, *American Journal of Speech-Language Pathology* (2000)
 Fellow, American Speech-Language-Hearing Association (2002)
 Distinguished Alumnus Award, College of Health and Human Services, San Diego State University (2005)

C1. Publications and Scholarly Work (Jan. 2005 – present)Books

- Hixon, T., and Hoit, J. (2005). *Evaluation and management of speech breathing disorders: Principles and methods*. Tucson, AZ: Redington Brown.
- Hixon, T., Weismer, G., and Hoit, J. (2008). *Preclinical speech science: Anatomy, Physiology, Acoustics, Perception*. San Diego, CA: Plural Publishing.
- Hoit, J., and Weismer, G. (2010). *Preclinical Speech Science Workbook*. San Diego, CA: Plural Publishing.
- Hixon, T., Weismer, G., and Hoit, J. (in press). *Preclinical speech science: Anatomy, Physiology, Acoustics, Perception* (2nd edition). San Diego, CA: Plural Publishing.
- Hoit, J., and Weismer, G. (in press). *Preclinical Speech Science Workbook* (2nd edition). San Diego, CA: Plural Publishing.

Chapters

1. Hoit, J., Banzett, R., and Brown, R. (2006). Ventilator-supported speech. In M. Tobin (Ed.), *The principles and practice of mechanical ventilation* (2nd edition) (pp. 1163-1171). McGraw-Hill.
2. Hoit, J., Banzett, R., and Brown, R. (in press). Ventilator-supported speech. In M. Tobin (Ed.), *The principles and practice of mechanical ventilation* (3rd edition). McGraw-Hill.

Refereed Journal Articles

1. Thom, S.A., Hoit, J.D., Hixon, T.J., and Smith, A.E. (2006). Velopharyngeal function during vocalization in infants. *Cleft Palate-Craniofacial Journal*, *43*, 539-546.
2. Brown, R., DiMarco, A.F., Hoit, J.D., and Garshick, E. (2006). Respiratory dysfunction and management in spinal cord injury. *Respiratory Care*, *51*, 853-870.
3. Farinella, K.A., Hixon, T.J., Hoit, J.D., and Story, B. (2006). Listener perception of respiratory-induced voice tremor. *American Journal of Speech-Language Pathology*, *15*, 72-84.
4. Hixon, T., and Hoit, J. (2006). A clinical method for the detection and quantification of quick respiratory hyperkinesia. *American Journal of Speech-Language Pathology*, *15*, 15-19.
5. Hoit, J., Lansing, R., and Perona, K. (2007). Speaking-related dyspnea in healthy adults. *Journal of Speech, Language, Hearing Research*, *50*, 361-374.
6. Keintz, C.K., Bunton, K., and Hoit, J.D. (2007). Influence of visual information on the intelligibility of dysarthric speech. *American Journal of Speech-Language Pathology*, *16*, 222-234.
7. Hoit, J. (January/February, 2007). Can you hear me now? *Advance for Managers of Respiratory Care*, 22-26.
8. Lowell, S., Barkmeier-Kraemer, J., Hoit, J., and Story, B. (2008). Respiratory and laryngeal function during spontaneous speaking in teachers with voice disorders. *Journal of Speech, Language, Hearing Research*, *51*, 333-349.
9. Ludlow, C.L., Hoit, J.D., Kent, R., Ramig, L.O., Shrivastav, R., Smith, A., Stathopoulos, E., Strand, E., Yorkston, K., and Sapienza, C. (2008). Translating principles of neural plasticity into research on speech motor control recovery and rehabilitation. *Journal of Speech, Language, and Hearing Research*, *51*, S240-S258.
10. Hoit, J. (2010). The gift of speech ... Priceless. *Respiratory Care*, *55*, 1760-1761.
11. Bunton, K., Hoit, J., and Gallagher, K. (2011). A simple technique for determining velopharyngeal status during speech production. *Seminars in Speech and Language*, *32*, 69-80.
12. Hoit, J., Lansing, R., Dean, K., Yarkosky, M., and Lederle, A. (2011). Nature and evaluation of dyspnea in speaking and swallowing. *Seminars in Speech and Language*, *32*, 5-20.
13. Lederle, A., Hoit, J., and Barkmeier-Kraemer, J. (2012). Effects of swallowing on drive to breathe in young, healthy adults. *Dysphagia*, *27*, 221-227.
14. Bennett, K., and Hoit, J. (in press). Stress velopharyngeal incompetence (SVPI) in collegiate trombone players. *Cleft Palate-Craniofacial Journal*.

C2. Invited Talks, Jan. 2008-present

1. Hoit, J. (April, 2008). Ventilator-supported speech production: Alternatives to one-way valves. Paper presented to Northwest Speech-Language Pathology Group, Tucson, AZ.
2. Hoit, J. (April, 2008). Management of speech breathing in clients with neuromotor speech disorders. Session to be presented at the ASHA Health Care Conference, St. Louis, MO.
3. Hoit, J. (April, 2008). Evaluation of speech breathing in clients with neuromotor speech disorders. Session to be presented at the ASHA Health Care Conference, St. Louis, MO.
4. Hoit, J., Whittaker, J., and McGee, R. (June, 2008). Getting from here to there: Implementation of programs by conference alumni. Teaching Survival Skills and Ethics: 13th Annual Trainer-of-Trainers Conference, Snowmass, CO.
5. Hoit, J. (August, 2008). Keys to being a successful (and ethical) graduate student. Paper presented to the University of Arizona Graduate Student Orientation.

6. Hoit, J., Whittaker, J., and McGee, R. (June, 2009). Getting from here to there: Implementation of programs by conference alumni. Paper presented at the Teaching Survival Skills and Ethics: 14th Annual Trainer-of-Trainers Conference, Snowmass, CO.
7. Hoit, J., and Rankin, L. (January, 2010). Mentoring with integrity. Paper presented at the Research Integrity Days Conference, Tucson, AZ.
8. Hoit, J., and Rankin, L. (January, 2010). Yours, mine, and ours: The ethics of authorship. Paper presented at the Research Integrity Days Conference, Tucson, AZ.
9. Hoit, J. (June, 2010). Effective speaking in the face of special challenges. Paper presented at the Teaching Survival Skills and Ethics: 14th Annual Trainer-of-Trainers Conference, Santa Fe, NM.
10. Hoit, J., Whittaker, J., and McGee, R. (June, 2010). Getting from here to there: Implementation of programs by conference alumni. Paper presented at the Teaching Survival Skills and Ethics: 14th Annual Trainer-of-Trainers Conference, Santa Fe.
11. Hoit, J. (July, 2010). Mentor/mentee responsibilities. Responsible Conduct in Research Workshop, University of Arizona, Tucson, AZ.
12. Hoit, J. (August, 2010). Keys to being a successful (and ethical) graduate student. Presentation at the Graduate College Orientation, University of Arizona.
13. Hoit, J. (November, 2010). Respiratory-based speech disorders. Topic presented to the National Student Speech-Language-Hearing Association at the American Speech-Language-Hearing Association Convention, Philadelphia, PA.
14. Hoit, J., and Nickerson, L. (April, 2011). Speaking and swallowing with noninvasive positive-pressure ventilation. Paper presented at the Arizona Speech-Language-Hearing Association Convention, Phoenix, AZ.
15. Hoit, J., and Edwards, T. (May, 2011). Mentoring and authorship. Responsible Conduct in Research Workshop, University of Arizona, Tucson, AZ.
16. Hoit, J. (June, 2011). Evaluation and management of speech breathing disorders. Half-day workshop presented at the Communication Sciences and Special Education (CSSE) Summer Institute, Athens, GA.
17. Hoit, J. (June, 2011). Evaluation of velopharyngeal function during speech production. Miniseminar presented at the Communication Sciences and Special Education (CSSE) Summer Institute, Athens, GA.
18. Hoit, J. (September, 2011). Ventilator-supported speech. Keynote speech presented to the International Symposium on Advanced Topics in Tracheostomy Care and Prolonged Mechanical Ventilation, Melbourne, Australia.
19. Hoit, J. (November, 2011). Mentoring and authorship. Responsible Conduct in Research Workshop, University of Arizona, Tucson, AZ.
20. Hoit, J. (April, 2012). Responsible conduct in research. Paper presented to the Department of Veterinary Science and Microbiology, University of Arizona, Tucson, Arizona.
21. Faux, C., Gallagher, K., and Hoit, J. (April, 2012). Are we improving PALS quality of life? Paper presented at the Arizona Speech-Language-Hearing Association Convention, Phoenix, AZ.
22. Hoit, J. (November, 2012). Workshop on writing research articles and proposals. Two-day workshop presented to Sub-Saharan scientists, sponsored by the National Cancer Institute and the World Health Organization. Zanzibar, Tanzania.
23. Davenport, P., Hoit, J., Brehm, S., Huber, J., Hegland, K., Stachowiak, L., and Sapienza, C. (November, 2012). Respiratory function: Assessment and treatment in disease. Short course presented at the American Speech-Language-Hearing Association Convention, Atlanta, GA.
24. Schloss, L., and Hoit, J. (December, 2012). Interviewing workshop. Workshop presented by the University of Arizona Career Services. Tucson, Arizona.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008 - 1; 2009 - 4; 2010 - 1; 2011 - 0; 2012 - 4

D. Active Research Support

Research Grant, "Velopharyngeal Function for Oral Sound Production in Healthy Children," National Institute on Deafness and Other Communication Disorders. PI = Hoit (\$1,572,876 total costs; 4/1/10 through 3/31/15)

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community: None

University, College, Department:

College of Science Associate Heads Committee (2008-2010)
SLHS Curriculum Committee Chair (2008-2011)
Reviewer for the University of Arizona Responsible Conduct in Research grants (2009-2010)
Neuroscience and Cognitive Science Curriculum Committee (2010)
Reviewer for the University of Arizona Faculty Seed Grants (2010-2011)
University of Arizona Responsible Conduct in Research (RCR) Committee (2010-present)
University of Arizona Student Grievance Committee (2011-present)
SLHS Advisory Committee (2011-present)
SLHS Graduate Admissions and Policy Chair (2011-present)
SLHS Voice/Swallowing Position Search Chair (2012)

Professional/Scientific: Member, Core Faculty, national program for teaching Survival Skills and Ethics (2006-2012)
Faculty Participant, Building Undergraduate Researcher Connections, American Speech-Language-Hearing Association (2008)
Faculty Mentor, Mentoring for Academic-Research Careers (MARC), American Speech-Language-Hearing Association (2008)
Reviewer for the National Institute of Health Challenge Grants (2009)
Associate Editor, *Seminars in Speech and Language* (one volume, 2010)
Reviewer for the Office of Research and Development of the U.S. Department of Veterans Affairs (2010-2011)
Editorial Board Member, *Logopedics Phoniatics Vocology* (2010-present)
Guest Associate Editor, *American Journal of Speech-Language Pathology* (2012)
Editorial Board Member, *Frontiers in Respiratory Physiology* (2012-present)

BIOGRAPHICAL SKETCH

NAME Lotto, Andrew J.		POSITION TITLE Associate Professor, Speech, Language & Hearing Sciences, U of A	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Wisconsin-Madison	B.S.	1990	Psych & Math
University of Wisconsin-Madison	Ph.D.	1996	Psychology
University of Wisconsin-Madison	Post-Doc	1997	Neurophysiology

A. Personal Statement

The act of communication with speech is so common and routine that it is easy to underestimate how complex these interactions actually are. A speaker has an idea in their head that they would like to convey then they translate that idea into words that they express by making all sorts of strange movements with their mouth. These movements make changes in air pressure, which we call sound. The listener picks up these sound waves and decomposes the sound into words and, hopefully, the intended message of the speaker. Much of the research into speech communication has focused on one or another step in the process of communication – e.g., how speakers control the movements of their mouths or how listeners hear the basic properties of the sounds being spoken. Whereas this approach has resulted in substantial progress in specific areas, we really still have a very coarse understanding of how communication occurs. In our laboratory, the Auditory Cognitive Neuroscience lab, we attempt to integrate research and theory across domains to investigate the act of communication. Integration at this level requires that we use a wide variety of methods and that we collaborate with researchers in hearing, speech production, linguistics, cognitive science, neuroscience, computer science, and even vision (after all communication is not just limited to hearing). Each year, we bring scientists from around the world in all of these areas to Tucson to discuss how humans (and other animals) use sound to communicate, to express themselves and to navigate their world. This annual meeting of the Auditory Cognitive Neuroscience Society has become an important source for cross-discipline research collaborations.

B. Honors and Awards

SLHS Innovation in Teaching Award	SLHS Department (U of A)	2012
Editor's Award for Speech	Journal of Speech, Language and Hearing	2009
Post-Tenure Research Productivity Award	Speech, Language & Hearing Sciences (U of A)	2009, 2010
Outstanding Mentor of Graduate/Professional Students (Honorable Mention)	Graduate and Professional Student Council (U of A)	2009
Pre-Tenure Research Productivity Award	Speech, Language & Hearing Sciences (U of A)	2007, 2008
Sigma Xi Young Investigator Award (Northwest)	Sigma Xi	2005
Parmly Research Faculty of the Year	Parmly Hearing Research Institute	1998
PHS National Research Service Award	National Institutes of Health	1996
Sigma Xi Dissertation Research Award	Sigma Xi (Wisconsin Chapter)	1995

C1. Publications and Scholarly Work

- Monson, B., Lotto, A., & Story, B. (in press). Analysis of high-frequency energy in long-term average spectra (LTAS) of singing and speech. *Journal of the Acoustical Society of America*.
- Laing, E.C.J., Liu, R., Lotto, A.J., & Holt, L.L. (2012). Tuned with a tune: Talker normalization via general auditory processes. *Frontiers in Auditory Cognitive Neuroscience*, 3, Article 203.
- Monson, B., Lotto, A., & Ternström, S. (2011). Detection of high-energy changes in sustained vowels produced by singers. *Journal of the Acoustical Society of America*, 129, 2263-2268.
- Lotto, A.J., & Holt, L.L. (2010). Psychology of auditory perception. In L. Nadel (ed.) *Wiley Interdisciplinary reviews: Cognitive Science*. Wiley. – Invited; Peer Reviewed
- Liss, J.M., LeGendre, S., & Lotto, A.J. (2010). Discriminating dysarthria type from envelope modulation spectra. *Journal of Speech, Language & Hearing Research*, 53, 1246-1255.
- Holt, L.L., & Lotto, A.J. (2010). Speech perception as categorization. *Attention, Perception & Psychophysics*, 72, 1218-1227. – Invited; Peer Reviewed.
- Liss, J.M., White, L., Mattys, S., Lansford, K., Lotto, A.J., Spitzer, S., Caviness, J. (2009). Quantifying speech rhythm deficits in the dysarthrias. *Journal of Speech, Language & Hearing Research*, 52, 1334-1352. (Winner of JSHLR Editor's Award for Speech).
- Hickok, G.S., Holt, L.L., & Lotto, A.J. (2009). What does motor cortex contribute to speech perception? *Trends in Cognitive Science*, 13, 330-331.
- Lotto, A. J., Hickok, G. S., & Holt, L. L. (2009). Reflections on mirror neurons and speech perception. *Trends in Cognitive Science*, 13, 110-114.
- Stelmachowicz, P.G., Nishi, K., Choi, S., Lewis D.E., Hoover, B.M., Dierking, D., & Lotto, A.J. (2008). Effects of stimulus bandwidth on the imitation of English fricatives by normal-hearing children. *Journal of Speech, Language & Hearing Research*, 51, 1369-1380/.
- Aravamudhan, R., Lotto, A.J., & Hawks, J. (2008). Perceptual context effects of speech & non-speech sounds: The role of auditory categories. *Journal of the Acoustical Society of America*, 124, 1695-1703.
- Choi, S., Lotto, A.J., Lewis, D.E., Hoover, B.M., & Stelmachowicz, P.G. (2008). Attentional modulation of word recognition by children in a dual-task paradigm. *Journal of Speech, Language and Hearing Research*, 51, 1042-1054.
- Holt, L.L., & Lotto, A.J. (2008). Speech perception within an auditory cognitive science framework. *Current Directions in Psychological Science*, 17, 42-46.
- Lotto, A.J., & Sullivan, S.C. (2007). Speech as a sound source. In W.A. Yost, R.R. Fay, & A.N. Popper (Eds.), *Springer Handbook of Auditory Research: Auditory Perception of Sound Sources*.
- McCleary, E.A., Ide Helvie, D.L., Lotto, A.J., Carney, A.E., & Higgins, M.B. (2007). Effects of elicitation task variables on speech production by children with cochlear implants. *Journal of Speech, Language and Hearing Research*, 50, 83-96.
- Kim, M.-R., Lotto, A.J., & Kim, J.-K. (2006). Influence of prosody on Korean word production by non-heritage learners. *The Korean Language in America*, 11, 102-111.

Lotto, A.J., & Holt, L.L. (2006). Putting phonetic context effects into context: Commentary on Fowler (2005). *Perception & Psychophysics*, 68, 178-183.

Holt, L.L., & Lotto, A.J. (2006). Cue weighting in auditory categorization: Implications for first and second language acquisition. *Journal of the Acoustical Society of America*, 119, 3059-3071.

Holt, L.L., Stephens, J.D., & Lotto, A.J. (2005). A critical evaluation of visually-moderated phonetic context effects. *Perception & Psychophysics*, 67, 1102-1112.

Kluender, K.R., Lotto, A.J., & Holt, L.L. (2005). Contributions of nonhuman animal models to understanding human speech. In S. Greenberg & W. Ainsworth (Eds.), *Listening to Speech: An Auditory Perspective*. (Oxford University Press: New York, NY).

C2. Invited Talks, Jan. 2008-present

Lotto, A.J., Monson, B., & A.D. Vitela "Exploring The acoustic forbidden zone: The mythical entities above 5.6 kHz." 6th Meeting of the Auditory Cognitive Neuroscience Society, Tucson, AZ; January 5, 2012.

Lotto, A.J. "Auditory cognitive neuroscience perspective on normal and disordered auditory processing." Hearing, Listening and Learning: New perspectives on auditory processing in individuals with normal and impaired hearing. Tucson, AZ, November 14, 2011.

Lotto, A.J. "Confessions of a neuroscience Luddite." 5th Meeting of the Auditory Cognitive Neuroscience Society, Tucson, AZ; January 6, 2011.

Lotto, A.J. "Why motor theory won't die." 4th Meeting of the Auditory Cognitive Neuroscience Society, Tucson, AZ; January 8, 2010.

Liss, J.M., Lotto, A.J., & Lansford, K. "Disordered speech as a testing ground for listener learning and adaptation." 158th Meeting of the Acoustical Society of America, San Antonio, TX; October 28, 2009.

Lotto, A.J. "Tuning speech perception to the speaker: The problem of the stubborn phoneme." Center for Perceptual Systems, University of Texas-Austin, Jan. 30, 2009.

Lotto, A.J. "Rhythm in speech". Third Annual Meeting of the Auditory Cognitive Neuroscience Society, Tucson, AZ, Jan. 9, 2009.

Lotto, A.J. "Talker normalization: The good, the bad and the average." Third Annual Meeting of the Auditory Cognitive Neuroscience Society, Tucson, AZ, Jan. 10, 2009.

Lotto, A.J. "Relating phonetic categorization to spoken language perception: Sometimes a [ga] is only a [ga]", Linguistics Colloquium Series, University of Arizona, March 14, 2008.

Lotto, A.J. "Moving beyond audibility in attempts to improve speech perception," Auditory Sciences Research Group, The Ohio State University Medical Center, Columbus, OH, January 16, 2008.

Lotto, A.J. "Speech perception as a laboratory phenomenon", 2nd Annual Meeting of the Auditory Cognitive Science Society, Tucson, AZ, January 12, 2008.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008=3; 2009=12; 2010=8; 2011=8; 2012=3.

D. Active Research Support

Principal Investigator, with co-PI Dr. Julie M. Liss, Perception of dysarthric speech, National Institutes of Health (R01), \$810,788, 7/01/10 – 6/30/15.

Principal Investigator, with co-PI Dr. Lori L. Holt, Formation and tuning of complex auditory categories (Renewal), National Institutes of Health (R01), \$1,918,786, 5/01/11-4/30/16.

Co-Investigator, Auditory and cognitive factors in speech perception and category learning (Randy Diehl, PI), National Institutes of Health, \$77,666, 9/01/09-6/30/13 (Subcontract).

Sponsor, General auditory model of adaptive perception of speech (Antonia Vitela, PI), NIH-NIDCD (F31), \$108,208, 1/01/2011-12/31/12.

Sponsor, Research Supplement to Promote Diversity in Health-Related Research (Kathy Carbonell, PI), NIH-NIDCD, \$88,931, 9/11-8/13

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community: Currently working with Tucson ScienceWorks to develop new sound-hearing-speech exhibits for their planned museum as well as new opportunities for active science learning for children.

University: Chair of School of Mind, Brain & Behavior Research Committee

Professional/Scientific: Organizer of annual meeting of the Auditory Cognitive Neuroscience Society

Editorial Board for Cognition and Frontiers in Auditory Cognitive Neuroscience

Member of NIH CP (Cognition & Perception) Study Section (Associate Chair)

NIH R03 Review Study Section Member 2008

Acoustical Society of America Speech Communication Technical Committee Member

BIOGRAPHICAL SKETCH

NAME MAAS, EDWIN		POSITION TITLE Assistant Professor	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Groningen (The Netherlands)	B.A.	7/1995	Dutch Literature and Linguistics
University of Groningen (The Netherlands)	M.A.	7/1998	Neurolinguistics
San Diego State University and University of California, San Diego (USA)	Ph.D.	8/2006	Language and Communicative Disorders
Boston University (USA)	Postdoc. training	9/2006-11/2007	Cognitive and Neural Systems (Speech Motor Control)

A. Personal Statement

My research focuses on speech production and its disorders across the lifespan, with both a theoretical component and a clinical research component. The theoretical arm of my research program examines in detail the processes, representations, and mechanisms of speech production at the phonological (sound) level and the motor planning level. My research combines a range of behavioral methods and measures, including perceptual analysis, reaction time tasks, and acoustic measures of speech. The clinical arm of my research program focuses on improving diagnosis and treatment for acquired and developmental speech disorders. This research includes an exploration of potential diagnostic markers for different types of speech disorders, and evaluation and comparison of treatment approaches using single-case experimental designs.

B. Honors and Awards

1998	VSU Bank (Netherlands) scholarship
2001, 2003	UCSD Friends of the International Center scholarship
2004	Kala Singh Memorial Scholarship
2004	American Speech-Language Hearing Foundation Graduate Student Scholarship
2004, 2005	NIDCD Research Symposium in Clinical Aphasiology Student Fellowship
2005	Student Research Travel Award, ASHA
2008	Editor's Award, <i>American Journal of Speech-Language Pathology</i> for Maas, Robin, Austermann Hula, Freedman, Wulf, Ballard, & Schmidt (2008)
2009	Fellowship for the 7 th Annual ASHA/NIDCD Lessons for Success Conference (Rockville, MD, April/May 2009)
2010	Selected for ASH Foundation-RSAC Grant Review and Reviewer Training Program

C1. Publications and Scholarly Work (Jan. 2005-present)

1. Freedman SE, Maas E, Caligiuri MP, Wulf G, & Robin DA. Internal vs. external: Oral-motor performance as a function of attentional focus. *Journal of Speech, Language, and Hearing Research* 2007;50:131-136.
2. Ballard KJ, Maas E, & Robin DA. Treating control of voicing in apraxia of speech with variable practice. *Aphasiology* 2007;21:1195-1217.

3. Maas E, Robin DA, Wright DL, & Ballard KJ. Motor programming in apraxia of speech. *Brain and Language* 2008;106:107-118.
4. Maas E, Robin DA, Austermann Hula SN, Freedman SE, Wulf G, Ballard KJ, & Schmidt RA. Principles of motor learning in treatment of motor speech disorders. *American Journal of Speech-Language Pathology* 2008;17:277-298. (Editor's Award)
5. Austermann Hula SN, Robin DA, Maas E, Ballard KJ, & Schmidt RA. Effects of feedback frequency and timing on acquisition, retention, and transfer of speech skills in acquired apraxia of speech. *Journal of Speech, Language, and Hearing Research*, 2008;51:1088-1113.
6. Ghosh, SS, Matthies, ML, Maas, E, Hanson, A, Tiede, M, Ménard, L, Guenther, FH, Lane, H, & Perkell, JS. An investigation of the relation between sibilant production and somatosensory and auditory acuity. *Journal of the Acoustical Society of America*, 2010;128:3079-3087.
7. Maas E. Conditions of practice and feedback in treatment for apraxia of speech. *Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders*, 2010;20:81-87.
8. Maas E, & Farinella K. A. Random versus blocked practice in treatment for childhood apraxia of speech. *Journal of Speech, Language, and Hearing Research*, 2012;55:561-578.
9. Maas E, Butalla CE, & Farinella, KA. Feedback frequency in treatment for childhood apraxia of speech. *American Journal of Speech-Language Pathology*, 2012;21:239-257.
10. Maas E, & Mailend M-L. Speech planning happens before speech execution: Contributions of on-line reaction time methods in the study of apraxia of speech. *Journal of Speech, Language, and Hearing Research*, 2012;55:S1523-S1534.

C2. Invited Talks Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

1. Maas, E. (January 2009). Speech / spoken language planning in children. Invited presentation, Auditory Cognitive Neuroscience Society Meeting (Tucson, AZ).
2. Maas, E. (March 2009). Conditions of practice in treatment for motor speech disorders. Invited presentation, University of Arizona's NSSLHA Educational Forum (Tucson, AZ).
3. Maas, E., & Farinella, K.A. (October 2009). Childhood Apraxia of Speech: Diagnosis and Treatment. Invited presentation, STARS Student Therapy (Tucson, AZ).
4. Maas, E. (April 2010). Treating speech production deficits in childhood apraxia of speech: Practice schedules and generalization patterns. Invited presentation, University of Arizona Linguistics Colloquium (Tucson, AZ).
5. Maas, E. (July 2010). Principles of motor learning applied to childhood apraxia of speech: An overview and new evidence. Invited presentation, National Conference on Childhood Apraxia of Speech (Pittsburgh, PA).
6. Maas, E. (September 2010). Principles of motor learning in childhood apraxia of speech. Invited presentation, Grunewald-Blitz Workshop (Tucson, AZ).
7. Maas, E. (November 2010). Principles of motor learning: A brief introduction. Invited presentation for short course entitled Motor Learning Principles: Clinical Implications for Stuttering & Other Disorders, American Speech-Language-Hearing Association Convention (Philadelphia, PA).
8. Maas, E. (July 2011). Interpreting the evidence in evidence-based practice: A tutorial on single-subject treatment research. Invited presentation, 2011 National Childhood Apraxia of Speech Conference (San Diego, CA).
 6. Maas, E. (November 2011). Apraxia of speech: Current views on diagnosis and treatment. Invited presentation, SpeechPathology.com (Tucson, AZ).
 7. Maas, E. (June 2012). Speech planning in children with and without speech disorders. Invited presentation, Speech, Language, and Hearing Sciences colloquium, Purdue University (West Lafayette, IN).
 8. Maas, E. (June 2012). Phonological planning in typical development and in children with speech sound disorders. Invited presentation, Speech Research Laboratory colloquium, Indiana University (Bloomington, IN).

9. Maas, E. (August 2012). Snake oil, fish oil, ethics, and evidence in the field of communication pathology. Invited short course, Department of Communication Pathology, University of Pretoria (Pretoria, South Africa).

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 1; 2009- 0; 2010- 2; 2011- 6; 2012- 5

D. Active Research Support

K01-DC010216 (E. Maas, PI) 4/1/2010 – 3/31/2015
NIDCD/NIH
Psycholinguistic Investigations of Development and Disorders of Speech Production
Role: PI

E. Major Service or Committee Assignments (Jan. 2008 – present)

University, College, Department:

2010-2012 Chair, Undergraduate Committee, SLHS
2012-present Colloquium Committee, SLHS

Professional/Scientific:

2008 Grant reviewer (Ad Hoc), Neurological Foundation of New Zealand
2010 Grant reviewer (Ad Hoc), Stichting Technologie en Wetenschap (Dutch Technology Foundation)
2010 Member, subcommittee on Language Disorders in Adults, ASHA 2010 Convention
2010 Grant reviewer (Ad Hoc), American Speech-Language-Hearing Foundation
2010-2011 Grant reviewer (Ad Hoc), Veterans Health Administration Rehabilitation Research & Development (Sensory Systems panel)
2010-2011 Member, grant review panel, Childhood Apraxia of Speech Association of North America
2010, 2012 Member, scholarship review committee, American Speech-Language-Hearing Foundation
2011 Member, scientific review committee, International Conference on Speech Motor Control
2011-2012 Grant reviewer (Ad Hoc), Fonds Wetenschappelijk Onderzoek Vlaanderen (Research Foundation Flanders)
2011-2013 Member, ANCDs Practice Guidelines committee on Treatment for Acquired Apraxia of Speech
2012 Member, subcommittee on Motor Speech in Adults and Children, ASHA 2012 Convention
2012 Reviewer (Ad Hoc), Advancing Academic Research Careers, ASHA
2012-2013 Member, steering committee for the 2013 CASANA Research Symposium
2012-present Chair, grant review panel, Childhood Apraxia of Speech Association of North America

Reviewer for American Journal of Speech-Language Pathology; Aphasiology; Clinical Linguistics & Phonetics; Contemporary Issues in Communication Sciences and Disorders; Folia Phoniatica et Logopaedica; International Journal of Language and Communication Disorders; International Journal of Speech-Language Pathology; Journal of the Acoustical Society of America; Journal of Communication Disorders; Journal of Medical Speech-Language Pathology; Journal of Neuroscience; Journal of Speech, Language, and Hearing Research; Language and Cognitive Processes; Language, Learning, and Development; NeuroImage

BIOGRAPHICAL SKETCH

NAME Marrone, Nicole, PhD, CCC-A		POSITION TITLE Assistant Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Minnesota, Minneapolis, MN	BA	06/01	Speech & Hearing Sci
Boston University, Boston, MA	MS	01/04	Audiology
Boston University, Boston, MA	PhD	09/07	Psychoacoustics
Northwestern University, Evanston, IL	Post-Doc.	12/10	Perceptual Learning

A. Personal Statement

My research is focused on auditory aging, hearing loss, and rehabilitative audiology. In my laboratory, we investigate how changes in auditory abilities as we age impact speech communication and well-being. Our emphasis is on scientific work that will have direct impact on the efficacy and effectiveness of audiology interventions. In one line of research, we investigate the processes that support understanding speech when more than one sound source is present and how these sound segregation abilities are affected by hearing loss and hearing aids. This work can lead to a better understanding of why some hearing aid users are more resilient, and others more susceptible, to the effects of noise and distraction in everyday communication. In a second line of research, we explore issues related to the effects of hearing loss on the lives of older adults and their families, focusing on well-being and adaptation. With collaborative partnerships between our lab, the UA Hearing Clinic, and the UA College of Public Health, we are developing novel community-based programs to maximize communication and quality of life with hearing loss. Through these two complementary lines of research, my laboratory is making progress towards our long-term goals of improving quality of life and the quality of hearing health care for people of all ages.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

2007 Editor's Award- Article of highest merit published in Hearing from the Journal of Speech, Language, and Hearing Research

C1. Publications and Scholarly Work (Jan. 2005 – present)

- Perkell, J. S., Matthies, M. L., Tiede, M., Zandipour, M., Marrone, N., Stockmann, E., and Guenther, F.H. (2004). The distinctness of speakers' productions of the s-sh contrast is related to their auditory discrimination and use of an articulatory saturation effect. *J Speech Lang Hear Res*, 47: 1259-1269.
- Perkell, J. S., Guenther, F. H., Lane, H., Marrone, N., Matthies, M. L., Stockmann, E., Tiede, M., and Zandipour, M. (2006). Production and perception of phoneme contrasts covary across speakers. In: J. Harrington & M. Tabian (eds.), *Speech Production: Models, Phonetic Processes, and Techniques*. London: Psychology Press.
- Lane, H., Denny, M., Guenther, F., Hanson, H., Marrone, N., Matthies, M. L., Perkell, J.S., Stockmann, E., Tiede, M., Vick, J., and Zandipour, M. (2007). On the structure of phoneme categories in listeners with cochlear implants. *J Speech Lang Hear Res*, 50: 2-14.
- Menard, L., Polak, M., Denny, M., Lane, H., Matthies, M., Perkell, J., Burton, E., Marrone, N., Tiede, M., and

Vick, J. (2007). Interactions of speaking condition and auditory feedback on vowel production in postlingually deaf adults with cochlear implants. *J. Acoust. Soc. Am.*, 121: 3790-3801.

5. Best, V., Marrone, N., Mason, C. R., Kidd, G., Jr., and Shinn-Cunningham, B. (2007). Hearing impaired listeners benefit from spatial and temporal cues in a complex auditory scene. *Proceedings of the International Symposium on Auditory and Audiological Research*, T. Dau, J. M. Buchholz, J. M. Harte and T. U. Christiansen (Eds.), Helsingør, Denmark, pp. 375-382.
6. Marrone, N., Mason, C. R., and Kidd, G., Jr. (2007). Listening in a multisource environment with and without hearing aids. *Proceedings of the International Symposium on Auditory and Audiological Research*, T. Dau, J. M. Buchholz, J. M. Harte and T. U. Christiansen (Eds.), Helsingør, Denmark, pp. 301-310.
7. Marrone, N., Mason, C.R., and Kidd, G., Jr. (2008). Tuning in the spatial dimension: Evidence from a masked speech identification task. *J. Acoust. Soc. Am.*, 124: 1146-1158.
8. Marrone, N., Mason, C. R., and Kidd, G., Jr. (2008). The effects of hearing loss and age on the benefit of spatial separation between multiple talkers in reverberant rooms. *J. Acoust. Soc. Am.*, 124: 3064-3075.
9. Marrone, N., Mason, C. R., and Kidd, G., Jr. (2008). Evaluating the benefit of hearing aids in solving the cocktail party problem. *Trends in Amplification*, 12: 300-315.
10. Best, V., Marrone, N., Mason, C. R., and Kidd, G., Jr., and Shinn-Cunningham, B. G. (2009). Effects of sensorineural hearing loss on visually guided attention in a multitalker environment. *J Assoc Res Otolaryngology*, 10: 142-149.
11. Wright, B.A., Sabin, A.T., Zhang, Y., Marrone, N., and Fitzgerald, M. (2010). Enhancing perceptual learning by combining practice with additional sensory stimulation. *J Neuroscience*, 30: 12868-12877.
12. Kidd, G., Jr., Mason, C. R., Best, V., and Marrone, N. (2010). Stimulus factors influencing spatial release from speech-on-speech masking. *J. Acoust. Soc. Am.*, 128: 1965-1978.
13. Sabin, A. T., Hardies, L., Marrone, N., and Dhar, S. (2011). Weighting Function-Based Mapping of Descriptors to Frequency-Gain Curves in Listeners with Impaired Hearing. *Ear and Hearing*, 32: 399-409.
14. Best, V., Marrone, N., Mason, C.R., and Kidd, G, Jr. (2012). Non-spatial factors influencing spatial release from masking. *J. Acoust. Soc. Am.*, 131(4), 3103-3110.

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

1. Marrone, N. (October, 2009). Spatial release from informational masking in older adults with hearing loss. Presented at the Aging and Speech Communication: Third International and Interdisciplinary Research Conference, Indiana University, (Bloomington, IN).
2. Marrone, N. (March, 2010). Learning More by Doing Less: Enhanced learning of a non-native phonetic contrast by interleaving direct practice with stimulus exposures, Phonatics Colloquium Series in the Department of Linguistics, Northwestern University, (Evanston, IL).
3. Marrone, N. (November, 2011). Auditory Processing In Older Adults with Hearing Loss: Parts I and II. Hearing, Listening, and Learning: New Perspectives on Auditory Processing in Individuals with Normal and Impaired Hearing, Audiology Workshop, University of Arizona. (Tucson, AZ).
4. Marrone, N. (March, 2012). Untangling the Clinical Knots: Interventions for Auditory Processing. Presented at the Castang Foundation Research Programme on Audition, Listening, and Language Acquisition in Children: Nature, Assessment, and Multidisciplinary Approach. Royal College of Physicians and Queen Margaret University, (Edinburgh, Scotland).
5. Norrix, L., Marrone, N., and Faux, C. (April, 2012). Building a Toolkit for Evaluating and Managing Auditory

Department of Speech, Language, and Hearing Sciences

Processing Disorders. Presented at the Arizona Speech Language Hearing Association Meeting, (Phoenix, AZ).

6. Marrone, N. (June, 2012) Normal Aging and Hearing: An Update for SLPs. Wellness & Normality: New Perspectives for Adult-focused Clinical Work, Presented at the Virtual Conference hosted by SpeechPathology.com.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 1; 2009- 1; 2010- 3; 2011- 1; 2012- 8;

D. Active Research Support

Departmental start-up funds

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

None

University, College, Department:

2011-present, AuD Advising, SLHS

2011-present, AuD Exam Committee Member, SLHS

2011-present, Faculty Marshal, University Commencement

2012-present, AuD Program Committee, SLHS

2012-present AuD Admissions Committee, SLHS

2012-present, Institutional Review Board Committee, SLHS

Professional/Scientific:

2010-present, Elected member of the Psychological and Physiological Technical Committee, Acoustical Society of America

2012-present, Continuing Education Committee for Special Interest Group 6: Hearing and Hearing Disorders: Research and Diagnostics, American Speech Language Hearing Association

BIOGRAPHICAL SKETCH

NAME Plante, Elena	POSITION TITLE		
	Professor		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Loyola University, Maryland	BA	1984	Speech-language path.
Loyola University, Maryland	MS	1985	Speech-language path.
The University of Arizona	PhD	1990	Speech & Hearing Sci.
The University of Arizona	Post Doc	1990-92	Speech & Hearing Sci.

A. Personal Statement

My lab uses neuroimaging techniques to determine the neuroanatomical and physiological correlates of poor learning by those with developmental language disorder. These studies are supported by behavioral studies that seek to discover conditions under which learning can occur rapidly (over the course of minutes) for both children and adults with this disorder. Translational work in the lab includes applying principles of learning from the experimental and imaging work into treatment contexts. In addition, I am involved in the development of standardized tests for children with language disorders.

B. Honors and Awards (since 2003)

- 2006 Editor's Award, article of highest merit, 2006
- 2004 Fellow, American Speech-Language-Hearing Association
- 2003 Galileo Circle Fellow, College of Science, University of Arizona

C1. Publications and Scholarly Work (Jan. 2005 – present)

Books

1. Plante, E & Beeson, P.M. *Communication and Communication Disorders: A Clinical Introduction, 4th Edition (2013), 3rd Edition (2008)*, Needham, MA: Allyn & Bacon.
2. Hotz, G., Helm-Estabrooks, N., Nelson, N.W., & Plante, E. (2010). *Pediatric Test of Brain Injury*. Baltimore, MD: Paul H. Brooks Publishing Co.

Chapters

1. Plante, E. (2012). Windows into receptive processing. In The Dyslexia Foundation, *The Extraordinary Brain*. Baltimore, MD: Brookes Publishing.
2. Holland, S.K., Plante, E., Byars, A.W. Strawsburg, R.H. & Schmithorst, V.J., (2009). "Functional MRI of Brain Lateralization Changes Associated with Normal Language Development". In Eswaran, H. and Singh, N.C., *Advances in Developmental Neuroscience and Imaging*, Anamaya Publishers, New Delhi, India, 45-72.

Refereed Journal Articles

1. Torkildsen, J., Dailey, N., Aguilar, J.M., Gómez, R., & Plante, E. (in press). Exemplar variability facilitates rapid learning of an otherwise unlearnable grammar by individuals with language impairment. *Journal of Speech, Language, & Hearing Research*
2. Schmithorst, V.J., Holland, S.K., & Plante, E. (in press). Diffusion tensor imaging reveals white matter

Program Director/Principal Investigator (Last, First, Middle):

microstructure correlations with auditory processing ability. *Ear and Hearing*. (PMID: 21063207)

3. Christensen, T.A. Almryde, K., Fidler, L.J. Lockwood, J.L. Antonucci, S.M. & Plante, E. (2012). Modulating the focus of attention for spoken words at encoding affects fronto-parietal activation for incidental verbal memory. *International Journal of Biomedical Imaging*, 2012, 579786.
4. Szaflarski, J.P., Altaye, M., Rajagopal, A., Eaton, K., Meng, X.X., Plante, E., & Holland, S.K. (2012). A 10-year longitudinal fMRI study of narrative comprehension in children and adolescents. *NeuroImage*, 63, 1188-1195. PMID: 22951258
5. Szaflarski, J., Rajagopal, A., Ataye, M., Byars, A.W., Jacola, L., Schmithorst, V.J., Schapiro, M.B., Plante, E., & Holland, S.K. (2012). Left-Handedness and Language Lateralization in Children. *Brain Research*, 1433, 85-97.
6. Suddarth, R., Plante, E., & Vance, R. (2012). Written Narrative Characteristics in Adults with Language Impairment. *Journal of Speech, Language, & Hearing Research*, 55, 409-240.
7. Hellend, T., Plante, E., & Hugdahl, K. (2011). Predicting dyslexia at age 11 from a risk index questionnaire at age five. *Dyslexia*. 207-226.
8. Markevych, V., Asbjørnsen, A.E., Lind, O., Plante, E., & Cone, B. (2011). Dichotic listening and otoacoustic emissions: Shared variance between cochlear function and dichotic listening performance in adults with normal hearing. *Brain & Cognition*, 76, 332-339.
9. Karunanayaka, P., Schmithorst, V.J., Vannest, J., Szaflarski, J.P., Plante, E., & Holland, S.K. (2011). A Linear Structural Equation Model for Covert Verb Generation Based on Independent Component Analysis of fMRI Data from Children and Adolescents. *Frontiers in Systems Neuroscience*, 5, 29.
10. Plante, E., Bahl, M., Vance, R., & Gerken, LA. (2011). Beyond Phonotactic frequency: Presentation Frequency Effects on Word Productions in Specific Language Impairment. *Journal of Communication Disorders*, 44,91-102. (PMC3010444)
11. Fidler, L.J., Plante, E., & Vance, R. (2011). Identification of Adults with Developmental Language Impairments. *American Journal of Speech-Language Pathology*, 20, 2-13. (PMID: 20739630)
12. Christensen, T. A., Lockwood, J. L., Almryde, K. R. and Plante, E. (2011). Neural substrates of attentive listening assessed with a novel auditory stroop task. *Frontiers in Human Neuroscience* 4, 1-12.(PMID: 21258643)
13. Kittleson, M., Aguilar, J.M., Tokerud, G.L., Plante, E., & Asbjørnsen, A.E. (2010). Implicit Language Learning: Adult's ability to segment words in Norwegian. *Bilingualism, Language, & Cognition*, 13 513-523. (PMCID: PMC3079201)
14. Vannest, J., Rasmussen, J., Eaton, K.P., Patel, K., Schmithorst, V., Karunananyaka, P., Plante, E., Byars, A., & Holland, S. (2010). fMRI activation in language areas correlates with verb generation performance in children. *NeuroPediatrics*, 41, 235– 239.
15. Plante, E., Bahl, M., & Gerken, LA. (2010). Children with specific language impairment show rapid, implicit learning of stress assignment rules. *Journal of Communication Disorders*, 43, 397-406.
16. Holland, S.K., Byars, A.W., Plante, E. Szaflarski, J.P., Dietrich, K., & Altaye, M. (2010). Letter: Studies support probable long-term safety of MRI. *Science*. 329, 512-513. (PMID: 20671170)
17. Karunanayaka, P., Schmithorst, V.J., Vannest, J., Szaflarski, J.P., Plante, E. and Holland, S.K. (2010). A Group Independent Component Analysis of Covert Verb Generation in Children: A Functional Magnetic Resonance Imaging Study. *Neuroimage*,51, 472-487. (PMID: 20056150)
18. Hotz, G., Helm-Estabrooks, N., Nelson, N., & Plante, E. (2009). The Pediatric Test of Brain Injury: Development and interpretation. *Topics in Language Disorders*, 29, 207-223.
19. Yuan, W., Altaye, M. Ret, J., Schmithorst, V.J., Byars, A.W., Plante, E., & Holland, S.K. (2009). Quantification of children's head motion in various fmri language tasks. *Human Brain Mapping*, 30, 1481-1489. (PMID: 18636549)
20. Greenslade, K.J., Plante, E., & Vance, R. (2009). The Diagnostic Accuracy and Construct Validity of the Structured Photographic Expressive Language Test – Preschool: Second Edition (SPELT-P2) *Language, Speech, and Hearing Services in Schools*, 40, 150-160. (PMC2720527)
21. Bahl, M., Plante, E., & Gerken, LA. (2009). Processing prosodic structure by adults with language-based learning disability. *Journal of Communication Disorders*, 42, 313-323. (PMC2856440)

22. Vannest, J.J., Karunanayaka, P.R., Altaye, M., Schmithorst, V.J., Plante, E.M., Eaton, K.J., Rasmussen, J.M. and Holland, S.K., (2009) Comparison of fMRI data from passive listening and active-response story processing tasks in children. *Journal of Magnetic Resonance Imaging*, 29, 971-6. (PMID: 21210340)
23. Specht, K., Hugdahl, K., Ofte, S., Nygård, M., Bjørnerud, A., Plante, E., & Helland, T. (2009). An fMRI study of brain activation in 6-year old children at-risk for dyslexia. *Scandinavian Journal of Psychology*, 50, 79-91. (PMID: 18826418)
24. Isaki, E., Spaulding, T.J., & Plante, E. (2008). Contributions of verbal and memory demands to verbal memory performance in language-learning disabilities. *Journal of Communication Disorders*, 41, 512-530. (PMID: 18482731)
25. Christensen, T., Antonucci, S., Lockwood, J.L., Kittleson, M. & Plante, E. (2008). Cortical and subcortical contributions to the attentive processing of speech. *NeuroReport*, 19, 1101-1105. (PMID: 18596608)
26. Tillema, J.M., Byars, A.W., Jacola, L.M., Schapiro, M.B., Schmithorst, V.J., Szaflarski, J.P. and Holland, S.K., (2008). Cortical reorganization of language functioning following perinatal left MCA stroke. *Brain & Language*, 105, 99-111.
27. Holland, S.K., Plante, E., Byars, A.W., Strawsburg, R.H. and Schmithorst, V.J., (2008). Functional MRI of Brain Lateralization Changes Associated with Normal Language Development. *Proc. Indo-US Workshop on Developmental Neuroscience and Imaging 2007*.
28. Spaulding, T.J., Plante, E., & Vance, R.B. (2008). Sustained selective attention skills of preschool children with specific language impairment: Evidence for separate attentional capacities. *Journal of Speech, Language, & Hearing Research*, 51, 16-34. (PMID: 18230853)
29. Norrix, L.W., Plante, E., Vance, R., & Boliek, C.A. (2007). Auditory-Visual Integration for Speech by Children with and without Specific Language Impairment. *Journal of Speech, Language, & Hearing Research*, 50, 1639-1651. (PMID: 18055778)
30. Schmithorst, V.J., Holland, S.K. and Plante, E., (2007). Development of effective connectivity for narrative comprehension in children. *NeuroReport*, 18, 1411-5. (PMID: 17712265)
31. Fisher, J., Plante, E., Vance, R., Gerken, LA., Glatke, T.J. (2007). Do Children and Adults with Language Impairment Recognize Prosodic Cues? *Journal of Speech, Language, Hearing Disorders*, 50, 746-758. (PMID: 17538113)
32. Holland, S.K., Vannest, J., Mecoli, M., Jacola, L.M., Tillema, J.M., Karunanayaka, P.R., V.J., S., Yuan, W.H., Plante, E. and Byars, A.W. (2007). Functional MRI of Language Lateralization During Development in Children". *International Journal of Audiology*, 46, 533-551. (PMID: 17828669)
33. Pankratz, M., Plante, E., Vance, R., Insalaco, D. (2007). The Diagnostic and Predictive Validity of The Renfrew Bus Story. *Language, Speech, & Hearing Services in Schools*, 38, 390 – 399. (PMID: 17890518)
34. Karunanayaka, P.R., Holland, S.K., Schmithorst, V.J., Solodkin, A., Chen, E.E., Szaflarski, J.P., Plante, E. (2007). Age -Related Connectivity Changes in fMRI Data from Children Listening to Stories. *NeuroImage*. 34, 349-60. (PMID: 17064940)
35. Schmithorst, V.J., Holland, S.K., & Plante, E. (2007). Object Identification and Lexical/Semantic Access in Children: A Functional Magnetic Resonance Imaging Study of Word-Picture Matching. *Human Brain Mapping*. 28,1060-1074. (PMID: 17133401)
36. Richardson, J., Harris, L., Plante, E., & Gerken, L.A. (2006). Subcategory Learning in Normal and Language Learning-Disabled Adults: How much information do they need? *Journal of Speech, Language, & Hearing Research*, 49, 1257-1266. (PMID: 17197494)
37. Alt, M. & Plante, E. (2006) Factors That Influence Lexical and Semantic Fast-Mapping of Young Children with Specific Language Impairment. *Journal of Speech, Language, & Hearing Research*, 49, 941 - 954. (PMID: 17077207)
38. Szaflarski, J.P., Schmithorst, V.J., Altaye, M., Byars, A.W., Rett, J., Plante, E., & Holland, S.K. (2006). FMRI study of longitudinal language development in children age 5-1. *Annals of Neurology*, 59, 796-807. (PMID: 16498622)
39. Jacola, L.M. Schapiro, M.B, Schmithorst, V.J., Byars, A.W., Strawsburg, R.H., Szaflarski, J.P., Holland, S.K., Plante, E. (2006). Functional Magnetic Resonance Imaging Reveals Atypical Language Organization in Children Following Perinatal Left Middle Cerebral Artery Stroke. *Neuropediatrics*. 37, 46-52. (PMID: 16541368)

Program Director/Principal Investigator (Last, First, Middle):

40. Peña, E.D., Spaulding, T.J., & Plante, E. (2006). The Composition of Normative Groups and Diagnostic Decision Making: Shooting Ourselves in the Foot. *American Journal of Speech-Language Pathology, 15*, 247-254. (PMID: 16896174)
41. Plante, E., Holland, S.K., & Schmithorst, V.J. (2006). Prosodic Processing by Children: An fMRI Study. *Brain and Language, 97*, 332-342. (PMID: 16460792)
42. Plante, E., Schmithorst, V.J., Holland, S.K., & Byars, A.W. (2006). Sex Differences in the Activation of Language Cortex During Childhood. *Neuropsychologia, 44*, 1210-1221. (PMID: 16303148)
43. Norrix, L.W., Plante, E., & Vance, R. (2006). Auditory-Visual Speech Integration by Adults with and without Language Learning Disabilities. *Journal of Communication Disorders, 39*, 22-36. (PMID: 15950983)
44. Spaulding, T.J., Plante, E., & Farinella, K.A. (2006). Eligibility criteria for language impairment: Is the low end of normal always appropriate? *Language, Speech, & Hearing Services in Schools, 37*, 61-72. (PMID: 16615750)
45. Plante, E., Ramage, A., Magloire, J. (2006). Processing Narratives for Verbatim and Gist Information by Adults with Language Learning Disabilities: A Functional Neuroimaging Study. *Learning Disabilities Research and Practice, 21*, 61-76.
46. Grunow, H., Spaulding, T.J., Gómez, R.L., & Plante, E. (2006). The Effects of Variation on Learning Word Order Rules by Adults with and without Language-based Learning Disabilities. *Journal of Communication Disorders, 39*, 158-170. (PMID: 16376369)
47. Schmithorst, V.J., Holland, S.K., & Plante, E. (2006). Cognitive Modules Utilized for Narrative Comprehension in Children: A Functional Magnetic Resonance Imaging Study. *NeuroImage, 29*, 254-266. (PMID: 16109491)
48. Ellis Weismer, S., Plante, E., Jones, M., Tomblin, J.B. (2005). A Functional Magnetic Resonance Imaging Investigation of Verbal Working Memory in Adolescents with Specific Language Impairment. *Journal of Speech-Language-Hearing Research, 48*, 405-425. (PMID: 15989401)
49. Kraemer, R., Plante, E., & Green, G.E. (2005). Speech and Language Development of a Young Child Post-Decannulation. *Journal of Communication Disorders, 38*, 349-358. (PMID: 15963335)
50. Perona, K., Plante, E., & Vance, R. (2005). Diagnostic Accuracy of the Structured Photographic Expressive Language Test: Third Edition (SPELT-3). *Language, Speech, & Hearing Services in Schools, 36*, 103-115. (PMID: 15981706)

C2. Invited Talks, Jan. 2008-present

1. *Hotz, G. & Plante, E. (2012, September). Pediatric Neurocognitive Assessment. Post-conference workshop at the 10th Annual Conference on Brain Injury. Miami, FL.
1. *Plante, E. (2010, June). Windows into receptive processing. The Dyslexia Foundation 12th Extraordinary Brain Symposium, Cong, Ireland.
2. *Owen, A., Schwartz, R.G., Tomblin, J.B., Plante, E., Jacobson, P., & McGregor, K. (2008, November). Challenges in the Identification of LI in Elementary School Children. Panel presentation at the American Speech-Language-Hearing Association Convention, Chicago, IL.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008-6; 2009-3; 2010-2; 2011-4; 2012-4

D. Active Research Support

1. Plante, E. (2011-2015). *Imaging Learning in Developmental Language Disorder*. NIDCD 1R01DC011276 \$2,144,569, Role on project: Principle Investigator. 1.125 academic months, 1.7 summer months.
2. Plante, E. (2010-2015). *Test of Integrated Language and Literacy Skills (TILLS) Validation Research 2*. IES R324A100354. \$216,981 Role on project: Co-Principle Investigator.

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community: Arizona State task force on professional credentials for speech-language therapists, task force on service eligibility criteria

University: MRI steering committee, MARC advisory board, Department Head, Faculty Senate Member at Large, Advanced Research in Biomedical Imaging steering committee, UA Advance: negotiations project & promotion project, School of Information Sciences & Technology faculty rostering committee chair.

Professional/Scientific: NIH LCOM review panel, ASHA/ASHF Grant Reviewer and Training committee/chair, ASHA Lessons for Success conference committee/chair.

BIOGRAPHICAL SKETCH

NAME Story, Brad H.	POSITION TITLE Associate Professor of Speech, Language, and Hearing Sciences
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Northern Iowa University of Minnesota	B.S.	05/87	Applied Physics
University of Iowa	Coursework Ph. D.	09/87-06/90 05/95	Electrical Engineering Speech and Hearing Sciences

A. Personal Statement

My research is concerned with the acoustics, mechanics, and physiology of human sound production. In my laboratory we view the structure and function of the respiratory, laryngeal, and upper airway systems collectively as an instrument of communication that produces sound. Whereas most of my work is directed toward understanding the sound producing mechanisms of speech, I also have interests in the singing voice, musical instruments, and understanding how listeners decode the information in the acoustic speech signal. The approach I take consists primarily of developing computational, physically based models with which we attempt to simulate the observed behavior of specific components of the speech production system. This model is currently at the stage where it can be used to facilitate studying problems such as how children acquire the ability to speak, how neurologic conditions imposed by disease affect speech production, and how listeners separate the spoken message from the sound qualities of the person speaking. These efforts may also have eventual technological applications in speech synthesis, speech recognition, and speaker identification.

B. Honors and Awards

- 2008 Fellow of the Acoustical Society of America
- 2008 Galileo Circle Fellow, College of Science, University of Arizona

C1. Publications and Scholarly Work (Jan. 2005 – present)

1. Story, B.H., (2005). A parametric model of the vocal tract area function for vowel and consonant simulation, J. Acoust. Soc. Am., 117(5), 3231-3254.
2. Story, B. H., (2005). Synergistic modes of vocal tract articulation for American English vowels, J. Acoust. Soc. Am., 118(6), 3834--3859.
3. Farinella, K. A., Hixon, T. J., Hoit, J. D., Story, B. H., and Jones, P. A., (2006). Listener perception of respiratory-induced voice tremor, Am. J. of Speech, Lang. Pathology, 15, 72-84.

4. Alku, P., Story, B. H., and Airas, M., (2006). Estimation of the voice source from speech pressure signals: Evaluation of an inverse filtering technique using physical modeling of voice production, *Folia Phoniatrica et Logopaedica*, 58(2), 102-113.
5. Story, B. H., (2006). A technique for "tuning" vocal tract area functions based on acoustic sensitivity functions, *J. Acoust. Soc. Am.*, 119(2), 715-718.
6. Lowell, S., and Story, B.H., (2006). Simulated effects of cricothyroid and thyroarytenoid muscle activation on vocal fold vibration in males, *J. Acoust. Soc. Am.*, 120, 386-397.
7. Mathur, S., Story, B. H., and Rodriguez, J. J., (2006). Vocal-tract modeling: Fractional elongation of segment lengths in a waveguide model with half-sample delays, *IEEE Transactions on Audio, Speech and Language Processing*, 14(5), 1754-1762.
8. Story, B. H., (2007). Time-dependence of vocal tract modes during production of vowels and vowel sequences, *J. Acoust. Soc. Am.*, 121(6), 3770-3789.
9. Pruthi, T., Espy-Wilson, C., and Story, B. H., (2007). Simulation and analysis of nasalized vowels based on magnetic resonance imaging data, *J. Acoust. Soc. Am.*, 121(6), 3858--3873.
10. Sapir, S., Spielman, J., Ramig, L.O., Story, B.H., and Fox, C., (2007). Effects of Intensive Voice Treatment (LSVT) on Vowel Articulation in Dysarthric Individuals with Idiopathic Parkinson Disease: Acoustic and Perceptual Findings, *J. Spch. Lang. Hear. Res.*, 50, 899-912.
11. Story, B. H., (2007). A comparison of vocal tract perturbation patterns based on statistical and acoustic considerations, *J. Acoust. Soc. Am.*, 122(4), EL107-EL114.
12. Carmichel, E.L., Harris, F.P., and Story, B.H., (2007). Effects of binaural electronic hearing protectors on localization and response time to sounds in the horizontal plane, *Noise and Health*, 9(37), 83-95.
13. Story, B. H., (2008). Comparison of Magnetic Resonance Imaging-based vocal tract area functions obtained from the same speaker in 1994 and 2002, *J. Acoust. Soc. Am.*, 123(1), 327-335.
14. Story, B. H., (2007). Modification of emotional speech and voice quality based on changes to the vocal tract structure, In *Emotions in the Human Voice: Volume I*, K. Izdebski, Editor, 123-136.
15. Lowell, S.Y., Barkmeier-Kraemer, J.M., Hoit, J.D., and Story, B.H., (2008). Respiratory and laryngeal function during spontaneous speaking in teachers with voice disorders, *J. Speech, Lang., and Hear. Res.*, 51, 333-349.
16. Bunton, K., and Story, B.H., (2009). Identification of synthetic vowels based on selected vocal tract area functions, *J. Acoust. Soc. Am.*, 125(1), 19-22.
17. Story, B.H., (2009). Vocal tract modes based on multiple area function sets from one speaker, *J. Acoust. Soc. Am.*, 125(4), EL141-EL147.
18. Alku, P., Magi, C., Yrttiaho, S., Backstrom, and Story, B.H., (2009). Closed-phase covariance analysis based on constrained linear prediction for glottal inverse filtering, *J. Acoust. Soc. Am.*, 125(5), 3289-3305.
19. Story, B.H., (2009). Vowel and consonant contributions to vocal tract shape, *J. Acoust. Soc. Am.*, 126, 825-836.
20. Bunton, K., and Story, B.H., (2010). Identification of synthetic vowels based on a time-varying model of the vocal tract area function, *J. Acoust. Soc. Am.*, 127(4), EL146-EL152.
21. Story, B.H., and Bunton, K., (2010). Relation of vocal tract shape, formant transitions, and stop consonant identification, *J. Spch. Lang. Hear. Res.*, 53, 1514-1528.
22. Titze, I.R., Worley, A.S., and Story, B.H., (2011). Source-vocal tract interaction in female operatic singing and theater belting, *J. Singing*, 67(5), 561-572.
23. Samlan, R., and Story, B.H., (2011). Relation of structural and vibratory kinematics of the vocal folds to two acoustic measures of breathy voice based on computational modeling, *J. Spch. Lang. Hear. Res.*, 54, 1267-1283.
24. Bunton, K., and Story, B.H., (2011). The relation of nasality and nasalance to nasal port area based on a computational model, *The Cleft Palate-Craniofacial Journal*, DOI: 10.1597/11-131.
25. Monson, B.B., Hunter, E., and Story, B.H., (2012). Horizontal directivity of low- and high-frequency energy in speech and singing, *J. Acoust. Soc. Am.*, 132(1), 433-441.
26. Monson, B.B., Lotto, A., and Story, B.H., (2012). Analysis of high-frequency energy in long-term average spectra of singing, speech and voiceless fricatives, *J. Acoust. Soc. Am.*, 132(3), 1754-1764.
27. Story, B.H., (2012). Phrase-level speech simulation with an airway modulation model of speech production, *Computer Speech and Language*. Published 26 October 2012. <http://dx.doi.org/10.1016/j.csl.2012.10.005>

28. Lester, R.L., and Story, B.H., (2012). Acoustic characteristics of respiratory-induced vocal tremor, *Am. J. Spch. Lang. Path.*, Published 26 November 2012, doi: 10.1044/1058-0360(2012/12-0043)
29. Story, B.H., and Bunton, K., (accepted for publication). Simulation and identification of vowels based on a time-varying model of the vocal tract area function, to be published in *Vowel Inherent Spectral Change*, G. Morrison and P. Assmann, Eds. Springer.

C2. Invited Talks, Jan. 2008-present (Invited community lectures & submitted presentations not included)

1. Story, B.H., (January, 2008). Sources of Variance in Speech Acoustics, Presented at the 2nd Auditory Cognitive Science Society Meeting, (Tucson, AZ).
2. Story, B.H., (August, 2008). Simulation of speech production with kinematic models of the vocal tract and vocal folds, International Conference on Vocal Fold Physiology and Biomechanics, (Tampere, Finland).
3. Story, B.H., (November, 2008). Quantal events generated by the structural and temporal variation of the vocal tract, Presented at the 156th Acoustical Society Meeting, 124, 2527, (Miami, FL).
4. Story, B.H., (November, 2008). A model of time-dependent changes of the vocal tract shape, Presented in "Progress in Speech Science Session" at the ASHA Annual Convention, (Chicago, IL).
5. Story, B.H., (January, 2009). Acoustics of singing, Presented at the Auditory Cognitive Neuroscience Society Meeting, (Tucson, AZ).
6. Story, B.H., (February, 2009). Simulation of speech production with kinematic models of the vocal tract and vocal folds, Presented at the International Symposium on Biomechanical and Physiological Modeling and Speech Science, JAIST, (Kanazawa, Japan).
7. Story, B.H., (May, 2009). A possible role of nonlinear source-filter interaction in simulation of childlike speech, Presented at the 157th Acoustical Society Meeting, 125(4), pt. 2, 2637, (Portland, OR).
8. Story, B.H., (May, 2009). Vocal Tremor I: The sum of its parts and their means to an end, Presented jointly with Dr. Julie Barkmeier-Kraemer at the Neurolaryngology Study Group of the Combined Otolaryngology Spring Meeting, (Scottsdale, AZ.)
9. Story, B.H., (August, 2009). Recent developments in vocal tract modeling, Pan-European Voice Conference (PEVOC), (Dresden, Germany.)
10. Story, B.H., (September, 2009). Simulation of sentence-level speech production with kinematic models of the vocal folds and vocal tract. Biomedical/Mechanical Engineering Seminar, Purdue University. (West Lafayette, IN).
11. Story, B.H., (October, 2009). Advances in simulation of sentence-level speech production with kinematic models of the vocal tract and vocal folds, Presented at the 158th Acoustical Society Meeting. (San Antonio, TX).
12. Story, B.H., (January, 2010). Lies, Damned Lies, and the Linear Source-Filter Theory of Speech, 4th Meeting of the Auditory Cognitive Neuroscience Society, (Tucson, AZ.)
13. Story, B.H., (July, 2010). Sources of vocal tremor and their acoustic characteristics, International Conference on Vocal Fold Physiology and Biomechanics, (Madison, WI).
14. Story, B.H., (January, 2011). A brief history of artificial speech in communications research, 5th Meeting of the Auditory Cognitive Neuroscience Society, (Tucson, AZ.)
15. Story, B.H., (March, 2011). TubeTalker: An airway modulation model of human sound production, International Workshop on Performative Speech and Singing Synthesis March 14-15, 2011, (Vancouver, BC.)
16. Story, B.H., (May, 2011). An overview of acoustic research in Speech Communication, Presented at the 161st Acoustical Society Meeting, 129(4), pt. 2 of 2, 2406. (Seattle, WA).
17. Story, B.H., (November, 2011). Artificial speech in communications research, Presented at the ASHA Annual Convention, (San Diego, CA).
18. Story, B.H., (January, 2012). The amazing talking machine: Modulation of a tubular system to produce speech, 6th Meeting of the Auditory Cognitive Neuroscience Society, (Tucson, AZ).
19. Story, B. H., (January, 2012). What can computational models tell us about speech production, Behavioral and Brain Sciences Colloquium Series, U. Texas at Dallas (Dallas, TX).

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 2; 2009- 4; 2010- 4; 2011- 5; 2012- 6

D. Active Research Support

R01 DC011275 (B. H. Story, PI) 9/1/11-8/31/16
NIDCD/NIH
An Acoustic Model of Child-like Speech
Role: PI

R01 DC04789 (B. H. Story, PI) 6/1/06-2/28/12 (no-cost ext.)
NIDCD/NIH
Quantitative Modeling of Speech
Role: PI

R01 DC006282 (H. Vorperian, PI) 2010-2015
NIDCD/NIH
MRI and CT Studies of the Developing Vocal Tract
Role: Consultant on vocal tract modeling

BCS-1145011 (B.H. Story, K. Bunton, Co-PIs) 2012-2015
NSF
A Model of Vowel Production in Children
Role: Co-Pi, computation model development

E. Major Service or Committee Assignments

University, College, Department:

2000-2006, Curriculum Committee, SLHS
2000-2005, Grade Appeals Committee, College of Science
2001-present, Chair of Doctoral Admissions and Policy Committee, SLHS.
2002-2004, Master's Admissions and Policy Committee, SLHS
2003-2010, Technical Standards Advisory Committee (Ad Hoc), SLHS
2004-2006, Human Subjects Review Committee, SLHS
2011-present, Associate Dept. Head, SLHS

Professional/Scientific:

2003-present, Member, Speech Technical Committee, Acoustical Society of America
2008, Scientific Reviewer, NIH, Communication Disorders Review Committee
2005-2009, Associate Editor, Journal of the Acoustical Society of America
2006-present, Member, R. H. Stetson Scholarship Committee, Acoustical Society of America
2006-2012, Ad Hoc, Scientific Grant Reviewer, NIH, Motor Function, Speech, and Rehabilitation Study Section
2007-2008, Member, Speech Motor Control Committee, 2008 Conference on Motor Speech
2008-present, Member, Technical Committee for Musical Acoustics, Acoustical Society of America
2010, Member, Scientific Review Committee of the Eurospeech/InterSpeech 2010 conference
2011, Member, Program Committee, International Seminar on Speech Production (ISSP)
2011-present, Associate Editor, Journal of the Acoustical Society of America
2012-2014, Study Section Member, NIH, Motor Function, Speech, and Rehabilitation
Reviewer for J. Phonetics, J. Acoustical Soc. Am., Speech Comm., J. Sound and Vibration, J. Spch, Lang., and Hear. Res.,
IEEE Transactions on Neural Networks, Folia Phoniatica, J. Voice, PLOS One.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Wilson, Stephen Murray		POSITION TITLE Assistant Professor of Speech, Language and Hearing Sciences, and Neurology	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Sydney	B.A.	11/97	Linguistics
University of California, Los Angeles	M.A.	06/02	Linguistics
University of California, Los Angeles	Ph.D.	08/06	Neuroscience
University of California, Irvine		06/07	Cognitive Science
University of California, San Francisco		06/10	Neurology

A. Personal Statement

My research is concerned with the neural basis of language, and focuses on three related questions: (1) How is language processed in the brain? (2) How does brain damage affect language processing in individuals with aphasia, i.e. acquired language disorders? (3) What brain mechanisms support the recovery of language processing in people with aphasia who improve over time? To address these questions, I use a range of neuroimaging techniques including functional magnetic resonance imaging, diffusion tensor imaging and perfusion imaging, along with comprehensive language assessments, to study healthy participants with normal language as well as individuals with different kinds of aphasia. I work with patients with aphasias of various etiologies, including neurodegenerative disease (primary progressive aphasia) and stroke. Linguistic domains of particular interest include morphosyntax, lexical access, and single word reading.

B. Honors and Awards

1997	University Medal, University of Sydney
2000-2003	University Fellowship, University of California, Los Angeles
2005-2006	Dissertation Year Fellowship, University of California, Los Angeles
2011	Conference Fellowship, Lessons for Success Research Conference, ASHA

C1. Publications and Scholarly Work (Jan. 2005 – present)

- Dick F, Dronkers NF, Pizzamiglio L, Saygin AP, Small SL, **Wilson SM**. Language and the brain. In: Tomasello M, Slobin DI, editors. *Beyond nature-nurture: Essays in honor of Elizabeth Bates*. Mahwah, NJ: Lawrence Erlbaum; 2005. pp. 237–60.
- Aziz-Zadeh L, **Wilson SM**, Rizzolatti G, Iacoboni M. Congruent embodied representations for visually presented actions and linguistic phrases describing actions. *Curr Biol* 2006; 16: 1818–23.
- Iacoboni M, **Wilson SM**. Beyond a single area: motor control and language within a neural architecture for imitation encompassing Broca's area. *Cortex* 2006; 43: 503–6.
- Wilson SM**, Iacoboni M. Neural responses to non-native phonemes varying in producibility: evidence for the sensorimotor nature of speech perception. *NeuroImage* 2006; 33: 316–25.

5. Dick F, Saygin AP, Galati G, Pitzalis S, Bentrovato S, D'Amico S, **Wilson SM**, Bates E, Pizzamiglio L. What is involved and what is necessary for complex linguistic and nonlinguistic auditory processing: evidence from functional magnetic resonance imaging and lesion data. *J Cogn Neurosci* 2007; 19: 799–816.
6. Iacoboni M, Kaplan J, **Wilson SM**. A neural architecture for imitation and intentional relations. In: Nehaniv CL, Dautenhahn K, editors. *Imitation and Social Learning in Robots, Humans and Animals: Behavioral, Social and Communicative Dimensions*. Cambridge, UK: Cambridge University Press; 2007. pp. 71–87.
7. Meister IG, **Wilson SM**, Deblieck C, Wu AD, Iacoboni M. The essential role of premotor cortex in speech perception. *Cur Biol* 2007; 17: 1692–6.
8. Cardinal KS, **Wilson SM**, Giesser BS, Drain AE, Sicotte NL. A longitudinal fMRI study of the paced auditory serial addition task. *Mult Scler* 2008; 14: 465–71.
9. Pa J, **Wilson SM**, Pickell H, Bellugi U, Hickok G. Neural organization of linguistic short-term memory is sensory modality-dependent: evidence from signed and spoken language. *J Cogn Neurosci* 2008; 20: 2198–210.
10. **Wilson SM**, Molnar-Szakacs I, Iacoboni M. Beyond superior temporal cortex: intersubject correlations in narrative speech comprehension. *Cereb Cor* 2008; 18: 230–42.
11. Hubbard AL, **Wilson SM**, Callan DE, Dapretto M. Giving speech a hand: Gesture modulates activity in auditory cortex during speech perception. *Hum Brain Mapp* 2009; 30: 1028–37.
12. Rankin KP, Salazar A, Gorno-Tempini ML, Sollberger M, **Wilson SM**, Pavlic D, Stanley CM, Glenn S, Weiner MW, Miller BL. Detecting sarcasm from paralinguistic cues: Anatomic and cognitive correlates in neurodegenerative disease. *NeuroImage* 2009; 47: 2005–15.
13. Sollberger M, Stanley CM, **Wilson SM**, Gyurak A, Weiner MW, Miller BL, Rankin KP. Neural basis of interpersonal traits in neurodegenerative diseases. *Neuropsychologia* 2009; 47: 2812–27.
14. **Wilson SM**. Speech perception when the motor system is compromised. *Trends Cogn Sci* 2009; 13: 329–30.
15. **Wilson SM**, Brambati SM, Henry RG, Handwerker DA, Agosta F, Miller BL, Wilkins DP, Ogar JM, Gorno-Tempini ML. The neural basis of surface dyslexia in semantic dementia. *Brain* 2009; 132: 71–86.
16. **Wilson SM**, Isenberg AL, Hickok G. Neural correlates of word production stages delineated by parametric modulation of psycholinguistic variables. *Hum Brain Mapp* 2009; 30: 3596–608.
17. **Wilson SM**, Ogar JM, Laluz V, Growdon M, Jang J, Glenn S, Miller BL, Weiner MW, Gorno-Tempini ML. Automated MRI-based classification of primary progressive aphasia variants. *NeuroImage*. 2009; 47: 1558–67.
18. Agosta F, Henry RG, Migliaccio R, Neuhaus J, Miller BL, Dronkers NF, Brambati SM, Filippi M, Ogar JM, **Wilson SM**, Gorno-Tempini ML. Diffusion tensor-based tractography of language networks in semantic dementia. *Brain* 2010; 133: 286–99.
19. Baldo JV, Bunge SA, **Wilson SM**, Dronkers NF. Is relational reasoning dependent on language? a voxel-based lesion symptom mapping study. *Brain Lang* 2010; 113: 59–64.
20. Pa J, Possin KL, **Wilson SM**, Quitania LC, Kramer JH, Boxer AL, Weiner MW, Johnson JK. Gray matter correlates of set-shifting in neurodegenerative disease, mild cognitive impairment, and healthy controls. *J Int Neuropsychol Soc* 2010; Apr 7: 1–11.
21. **Wilson SM**, Dronkers NF, Ogar JM, Jang J, Growdon M, Agosta F, Henry M, Miller BL, Gorno-Tempini ML. Neural correlates of syntactic processing in the non-fluent variant of primary progressive aphasia. *J Neurosci* 2010; 30: 16845–54.
22. **Wilson SM**, Henry ML, Besbris M, Ogar JM, Dronkers NF, Jarrold W, Miller BL, Gorno-Tempini ML. Connected speech production in three variants of primary progressive aphasia. *Brain* 2010; 133: 2069–88.
23. Galantucci S, Tartaglia MC, **Wilson SM**, Henry ML, Filippi M, Agosta F, Dronkers NF, Henry RG, Ogar JM, Miller BL, Gorno-Tempini ML. White matter damage in primary progressive aphasias: a diffusion tensor tractography study. *Brain* 2011; 134: 3011–29.
24. Lee SE, Rabinovici GD, Mayo MC, **Wilson SM**, Seeley WW, DeArmond SJ, Huang EJ, Trojanowski JQ, Growdon ME, Jang JY, Sidhu M, See TM, Karydas AM, Jagust WJ, Weiner MW, Gorno-Tempini ML, Boxer AL, Geschwind MD, Rankin KP, Miller BM. Clinicopathological correlations in corticobasal degeneration. *Ann Neurol* 2011; 70: 327–40.
25. Ogar JM, Baldo JV, Brambati SM, **Wilson SM**, Henry ML, Miller BL, Dronkers NF, Gorno-Tempini ML. Semantic dementia and persisting Wernicke's Aphasia: Linguistic and anatomical profiles. *Brain Lang* 2011; 117: 28–33.
26. **Wilson SM**, Galantucci S, Tartaglia MC, Rising K, Patterson D, Henry ML, Ogar JM, DeLeon J, Miller BM, Gorno-Tempini ML. Syntactic processing depends on the dorsal language pathway. *Neuron* 2011; 72: 397–403.

27. Baldo JV, **Wilson SM**, Dronkers NF. Uncovering the neural substrates of language: a voxel-based lesion symptom mapping approach. In: Faust M, editor. *The Handbook of the Neuropsychology of Language: Volume 2: Language Processing in the Brain: Clinical Populations*. Oxford: Wiley-Blackwell; 2012. pp. 582–94.
28. DeLeon J, Gesierich B, Besbris M, Ogar J, Henry ML, Miller BL, Gorno-Tempini ML, **Wilson SM**. Elicitation of specific syntactic structures in primary progressive aphasia. *Brain Lang* 2012; 123: 183–90.
29. Gesierich B, Jovicich J, Riello M, Adriani M, Monti A, Brentari V, Robinson S, **Wilson SM**, Fairhall S, Gorno-Tempini ML. The anterior temporal lobes in semantics and naming: a functional activation study using optimized echo planar imaging. *Cereb Cor* 2012; 22: 2217–26.
30. Henry M, **Wilson SM**, Ogar J, Sidhu M, Rankin K, Cattaruzza T, Miller B, Gorno-Tempini ML, Seeley W. Neuropsychological, behavioral, and anatomical evolution in right temporal variant frontotemporal dementia: A longitudinal and post-mortem single case analysis. *NeuroCase* 2012; in press.
31. Henry ML, **Wilson SM**, Rapcsak SZ. Primary progressive aphasia. In: Nair AK, Sabbagh M, editors. *Textbook of geriatric neurology*. New York: Prentice-Hall; 2012.
32. **Wilson SM**, Galantucci S, Tartaglia MC, Gorno-Tempini ML. The neural basis of syntactic deficits in primary progressive aphasia. *Brain Lang* 2012; 122: 190–8.

C2. Invited Talks (Jan. 2008 – present)

1. Neural evidence for the role of the sensorimotor system in linguistic representations; 2008 Apr 25; University of California, San Diego, CA.
2. Neuroimaging studies of speech production; 2009 Feb 9; Department of Linguistics, University of California, Berkeley, CA.
3. Automated MRI-based classification of primary progressive aphasia variants; 2009 Apr 28; Veteran's Administration Northern California Health Care Service, Martinez, CA.
4. Semantic processing; 2009 May 2; Short course lecture presented at: *61st Annual Meeting of the American Academy of Neurology*; 2009 Apr 25–May 2; Seattle, WA.
5. Automated MRI-based classification of primary progressive aphasia variants; 2009 Jun 24; Veteran's Administration Northern California Health Care Service, San Francisco, CA.
6. Language breakdown in neurodegenerative disease: Correlating neural changes with linguistic deficits; 2009 Aug 25; Wisconsin Alzheimer's Disease Research Center, University of Wisconsin, Madison, WI.
7. Language breakdown in neurodegenerative disease: Linking neural changes with linguistic deficits; 2010 Feb 10; Department of Speech, Language and Hearing Sciences, University of Arizona, Tucson, AZ.
8. Premotor cortex: First stop after the temporal lobe, but why? 2011 Jan 6; Auditory Cognitive Neuroscience Society, Tucson, AZ.
9. Mapping functional anatomy by identifying regionally-specific and stimulus-related BOLD fluctuations that are coherent across subjects; 2011 Dec 3; UA–ASU Cognitive Science Conclave, Tucson, AZ.
10. What are the functional roles of the dorsal and ventral components of the language network? 2012 Jan 5; Auditory Cognitive Neuroscience Society, Tucson, AZ.
11. Syntax and semantics in primary progressive aphasia. 2012 May 23; Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.
12. Syntax and semantics in primary progressive aphasia. 2012 July 12; University of Queensland, Brisbane, Australia.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 3; 2009- 4; 2010- 10; 2011- 7; 2012- 3.

D. Active Research Support

R03 DC010878

Wilson (P.I.)

04/01/10–03/31/13

Functional neuroimaging of language processing in primary progressive aphasia

The overall goals of this project are to use functional magnetic resonance imaging (fMRI) to investigate neural changes underlying linguistic deficits in PPA, and to use this information to better discriminate patients with variants of PPA from each other and from normal aging.

Role: P.I.

R01 NS050915

Gorno-Tempini (P.I.) 2012–17

Progressive aphasia: cognition anatomy and progression

The major goal of this project is to investigate the cognitive and neural basis of speech and language impairments in primary progressive aphasia.

Role: Consultant

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

Educational presentations:

1. Real mind reading: New technologies that allow us to study the human brain at work; 2010 Mar 16; Belmont Library, Belmont, CA.
2. Primary progressive aphasia: Speech and language, anatomy and etiology; 2011 Feb 15; NSSLHA, University of Arizona, Tucson, AZ.
3. Healthy brain aging; 2011 Sep 28; Udall Carol West Senior Addition, Udall Regional Center, Tucson, AZ.
4. Healthy brain aging: Myths and facts; 2011 Oct 12; El Pueblo Senior Center, Tucson, AZ.
5. Healthy brain aging; 2012 Mar 18; Family Caregiver and Senior Resource Fair, St. Philip's In The Hills Episcopal Church, Tucson, AZ.
6. The aging brain: What goes right, what goes wrong, and what you can do about it; 2012 Apr 22; St. Philip's In The Hills Episcopal Church, Tucson, AZ [with Gayle DeDe].

University:

2010-2012	Member, Undergraduate Admissions/Policy Committee, SLHS, University of Arizona
2011-	Member, Technology Advisory Committee, School of Mind, Brain and Behavior, U of Arizona
2012-	Member, MRI Steering Committee, University of Arizona
2012-	Member, Curriculum Committee, SLHS, University of Arizona

Professional/Scientific:

2001-	Member, Cognitive Neuroscience Society
2002-2003	Visiting scholar, Center for Research in Language, University of California, San Diego, CA
2003-	Member, Organization for Human Brain Mapping
2003-	Member, Society for Neuroscience
2011-	Member, Society for the Neurobiology of Language
2012-	Member, American Speech-Hearing Association

Reviewer for granting agencies: National Science Foundation, United States–Israel Binational Science Foundation.

Reviewer for publishers: CSLI Publications, Harvard University Press, Oxford University Press.

Reviewer for conferences: Neurobiology of Language Conference (2010–12), Italian Scientists and Scholars in North America Foundation (2012)

Reviewer for journals: American Journal of Speech-Language Pathology, Annals of Neurology, Brain, Brain and Language (received "Top Reviewer" award), Cerebral Cortex, Cognitive Brain Research, Cognitive Neuroscience, Cortex, Current Biology, Experimental Brain Research, European Journal of Neuroscience, Frontiers in Evolutionary Neuroscience, Frontiers in Language Sciences, Journal of Cognitive Neuroscience, Journal of the International Neuropsychological Society, Journal of Neurology, Journal of Neuroscience, Human Brain Mapping, Language and Cognitive Processes, Language Learning and Development, Nature Neuroscience, Neurobiology of Aging, Neurocase, NeuroImage, NeuroImage: Clinical, Neurology, Neuron, Neuropsychologia, PLoS One, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B Biological Sciences, Psychological Science

BIOGRAPHICAL SKETCH

NAME Dean, James	POSITION TITLE Senior Lecturer & Clinical Audiologist (Pediatrics) In Speech Language and Hearing Sciences.
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INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Massachusetts, Amherst, MA	B.A.	01/1977	History
Smith College, Northampton MA	MED	05/1980	Deaf Education
University of Wisconsin, Madison, WI	M.S.	05/1983	Audiology
Kirksville College of Osteopathic Medicine, Arizona School of Health Sciences, Mesa, AZ.	AuD	04/2002	Audiology

Personal Statement:

A. As a Senior Lecturer and Pediatric Audiologist I teach courses in the areas of acoustics, pediatric audiology and audiologic habilitation. In a newly developed general education course for undergraduates (SLHS 255) I use life course theory as a frame work for teaching a family-centered interdisciplinary approach to audiologic assessment and intervention. The role of technology, including human interface technology, in rehabilitation and the social consequences of hearing loss and health care disparity are central themes in this course. I also provide audiologic services in the Pediatric Outpatient Therapies Department at the Tucson Medical Center. The multicultural environment of this interdisciplinary clinic provides excellent clinical rotations for graduate students who are pursuing Doctor of Audiology (AuD) degrees from the University of Arizona. My experience working with community service programs, state health agencies and national associations is extensive and as an advocate for community outreach and the reduction of health care disparity I have participated in many local, national and international humanitarian audiology projects. In the area of leadership, I am a core faculty member in the Arizona, Leadership Education in Neurodevelopment and Related Disorders (AZ-LEND) program. This program funded through the US Department of Health, Health Resources and Service Administration has as its central mission, improving access to health care services for people who are uninsured, isolated, or medically vulnerable by training the future leaders in healthcare.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

2000: Larry Mauldin Award for Excellence in Education in the Healthcare Profession

C1. Publications and Scholarly Work (Jan. 2005 – present)

Dean, J., Disorders of hearing in children. In, Plante, E. & Beeson, P., Communication and communication disorders: a clinical introduction. (4th Edition). Pearson Education Inc., Boston (2012)

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

04/28/2011. Hear It, Learn It, Say It: Promoting speech, language and auditory skill development in hearing impaired children. J. Dean, L. Norrix, C Muller. University of Arizona 04/28/2011

10/15/2011. FM Advantage with Open Fit Hearing Aids. L. Norrix, K. Baker, J. Dean. Oticon National Pediatric Conference, San Antonio, TX

01/20/2012: The Deaf/Hard of Hearing Child's Journey to Listening and Spoken Language; A workshop for parents and professionals. Arizona Health Science Center, Tucson AZ

10/2/2012, Audiologic Assessment of Children with Autism, Ear Foundation Annual Conference. Phoenix AZ.

E. Major Service or Committee Contributions (Jan. 2008 – present)

2008-2009: Consulting Audiologist for the State of Maine, Department of Health, Newborn Hearing Program, Augusta, ME

2008-2009: Chaired Working Groups for developing State guidelines for infant audiologic assessment and fitting of amplification with infants.

2009: National Initiative for Children's Healthcare Quality (NICHQ). Atlanta, GA. Audiology representative for the State of Maine Department of Health, Office for Children with Special Healthcare Needs

2010 to present: Management Committee, Arizona Leadership Education in Neurodevelopmental and Related Disabilities (AZ-LEND). Department of Pediatrics, University of Arizona Medical Center, Tucson, AZ.

2010 to present: Core Faculty Member, Association of University Centers on Disabilities, Arizona Leadership Education in Neurodevelopmental and Related Disabilities (AZ-LEND)

2011 to present: Member Association of University Centers on Disabilities, Multicultural Counsel. Leader of Native American Working Group

Local/Community:

03-31-2012: Supervising Audiologist, El Rio Community Health Fair, Tucson, AZ

10-2009, 2010, 2011: Supervising audiologist, Festival of Hope Health Fair, Tucson, AZ

05-2010-2012: Supervising Audiologist, Arizona Special Olympics Healthy Hearing Program, Mesa AZ.

05-2008 to 09-2009: Co-founder and principle manager of an initiative to reduce American Indian hearing health disparity in Maine. This minority health program was funded by \$25,000 grant from the Office of Minority Health Disparity, Center for Disease Control, State of Maine Department of Human Services Augusta, Maine.

12-2008 to 08-2009: **President**, Maine Academy of Audiology.

University:

2010 to present: Graduate Admissions committee

2011 to present: Faculty Advisor, Student Organizations committee

BIOGRAPHICAL SKETCH

NAME David S. Velenovsky, PhD, CCC-A		POSITION TITLE Senior Lecturer	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Va. Poly. Inst. & State U., VA	B.S.	05/77	Biology/Psychology
Colorado State University, CO	M.S.	12/79	Audiology
University of Arizona, AZ	Ph.D.	12/98	Speech & Hearing Sci.
University of Arizona College of Medicine, AZ	Postdoc	01/99-01/02	Auditory Neuroanatomy & Physiology

A. Personal Statement

As Senior Lecturer, my primary focus is on instruction. I teach of courses to both undergraduates and audiology graduate students. Those courses are listed below:

SLHS 483/583	Principles of Audiology
SLHS 588A	Physiological Evaluation of the Auditory System
SLHS 588B	Assessment and Rehabilitation of the Balance System
SLHS 589	Advanced Audiologic Evaluation
SLHS 596M	Seminar: Tinnitus
SLHS 562A	Anatomy & Physiology of the Auditory System
NRSC 560	Systems Neuroscience

Additionally, I have a variety of research interests. Recent areas of focus include **Tinnitus Management** (efficacy of management strategies), **Auditory Processing** in individuals with autism (comparison of APD test battery performance of those on the Autism Spectrum to control subjects, using both “bottom up” and “top down” test modalities), **Auditory Evoked Potentials** (optimizing stimulus and recording parameters for estimation of hearing threshold in non-sedated infants) **Wide Band Reflectance** (exploring clinical uses beyond standard reflectometry) and **Cochlear Mechanics** in lizards as a way to better understand mammalian cochlear mechanics.

C1. Publications and Scholarly Work (Jan. 2005 – present)

Velenovsky, D.S., T.J. Glatke. (2007) Suppression of Otoacoustic Emissions, in: Otoacoustic Emissions, Clinical Applications, 3rd Edition, Martin S. Robinette, Theodore J. Glatke, editors, Thieme, New York.

Refereed Journal Articles:

Sinex, D.G., H. Li and **D.S. Velenovsky**, (2005), Prevalence of stereotypical responses to mistuned complex tones in the inferior colliculus. Journal of Neurophysiology, vol. 95, 5 pp. 3523-37.

McMullen, N.T. **D.S. Velenovsky** and M.G. Holmes (2005) Auditory thalamic organization: cell laminae, dendritic arbors and tectothalamic axons underlying the frequency map. Neuroscience, vol. 136, 3, pp. 927-943.

Velenovsky, D.S.; (2008) Suppression of Otoacoustic Emissions: An Overview, Perspectives on Hearing and Hearing Disorders: Research and Diagnostics; 12: 4-16.

Bergevin C, **Velenovsky D.S.**, Bonine K.E. (2010) Tectorial membrane morphological variation: effects upon stimulus frequency otoacoustic emissions. Biophysical Journal, vol 99, 4, pp. 1064-72.

Bergevin C, Fulcher A, Richmond S, **Velenovsky D**, Lee J. (2012) Interrelationships between spontaneous and low-level stimulus-frequency otoacoustic emissions in humans. Hearing Research, vol 285, 1-2, 20-28.

Norrix L, Burgan B, Ramirez N, **Velenovsky D**. (2012) Interaural Multiple Frequency Tympanometry Measures: Clinical utility for unilateral conductive hearing loss. Journal of the Academy of Audiology, *in revision*

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

Velenovsky, D., Barakat, F., Huart, S.; (November, 2010) "The State of Tinnitus Management at the University of Arizona; Tinnitus, at Tinnitus: Causes, Evaluation & Treatment; The University of Arizona.

Velenovsky, D., Barakat, F. (May, 2011) " Risk Management: The Impact of Occupational & Recreational Noise " Southern Arizona Safety Council Quarterly Meeting.

Velenovsky, D., (November, 2011) "Auditory Processing in Children and Adolescents with Autism Spectrum Disorder" at Hearing, Listening and Learning: New perspectives on auditory processing in individuals with normal and impaired hearing; The University of Arizona.

Velenovsky, D. (March, 2012) "Audiological Assessment and Remediation", in NRS 310, Family Health and Deafness, University of Arizona College of Nursing.

D. Active Research Support

University of Arizona Faculty Seed Grant: "Auditory Processing in Children and Adolescents with Autism Spectrum Disorder". D.S. Velenovsky, PI, August, 2010-May, 2013. Total Project Award: \$10,000.

Association of University Centers on Disabilities: "Innovations for Electrophysiologic Assessment of Infant Hearing". Co-investigator, January, 2011, Total Project Award: \$200,000.

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2010-Present: Board of Directors, TIHAN (Tucson Interfaith HIV/AIDS Network). Head of Development Committee.

Velenovsky, D., Christensen, T., Bourne-McDonald, S., Tanji, J., Trepanier, S., (April, 2012) Second Annual Boxer Expo STEM program, Vail Academy and High School. Organized and demonstrated auditory evoked potentials, otoacoustic emissions, effects of hearing loss and auditory central nervous system structure and function to 100's of students (grades 7-12) and their parents.

University:

AuD & Master's Admissions & Policy committee, SLHS 2009-present

Ad-hoc Search Committee, SLHS 2010

Teaching Laboratory Facilities Committee, SLHS 2012-present

Professional/Scientific:

2010-Present: Academic Panel IDA Institute (Denmark)

BIOGRAPHICAL SKETCH

NAME Christensen, Thomas A.		POSITION TITLE Senior Research Scientist in Speech, Language & Hearing Sciences	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
State University of New York at Stony Brook	B.S.	05/78	Biology
State University of New York at Stony Brook	Ph.D.	08/83	Neurobiology & Behavior

A. Personal Statement

Throughout my career my research has focused on improving ways to understand the neural basis of sensory communication and how sensory networks in the brain control behavior. My current research focuses on the neuroanatomical and functional organization of speech perception and the role of “attentive listening” using tools like functional brain imaging (fMRI) coupled with electrophysiological tools (EEG) and behavioral testing. The principal goal of this research is to employ a multidisciplinary approach toward investigating and testing a functionally- and anatomically-based model of auditory processing that will help inform the development of new diagnostic tools and therapies for the treatment of auditory processing disorders. Current projects explore the cognitive modulation of primary language processing by attention and memory networks, the effects of attention type and cognitive load on language perception, and the roles of cortical-subcortical interactions in serving these cognitive processes. Our experiments in typical listeners are a prelude to studying clinical populations with brain disorders that disrupt language, verbal memory, attention, or any combination of these critical skills.

B. Honors and Awards

1983-86 Individual NRSA Postdoctoral Research Award
 1988 First Place Poster Award at the Eighth International Biennial Congress of the European Chemoreception Research Organization
 1991-92 Visiting Summer Professorship awarded by the University of Trondheim, Norway
 1994 Kenji Nakanishi Award for Excellence in Olfactory Research; the Takasago Corp. & the Assoc. for Chemoreception Sciences (first insect neuroscientist so honored)
 1996-present 20+ invited presentations in the US, Europe and Japan
 2007-present NIH (NIDCD) Career Development Award to study human brain mapping

C1. Publications and Scholarly Work (Jan. 2005 – present)**Books**

Methods in Insect Sensory Neuroscience, TA Christensen (ed), CRC Press, Boca Raton, FL, 435 pp. (2005)

Refereed Journal Articles

(a) Olfactory Neuroscience

1. Dacks AM, Christensen TA, Agricola H-J, Wollweber L, Hildebrand JG (2005) Octopamine-immunoreactive neurons in the brain and subesophageal ganglion of the hawkmoth *Manduca sexta*. *J Comp Neurol* 488:255-268
2. Reisenman CE, Christensen TA, Hildebrand JG (2005) Chemosensory selectivity of output neurons innervating an identified, sexually isomorphic olfactory glomerulus. *J Neurosci* 25:8017-8026
3. Abrell L, Guerenstein PG, Mechaber WL, Stange G, Christensen TA, Nakanishi K, Hildebrand JG (2005) Effect of elevated atmospheric CO₂ on oviposition behavior in *Manduca sexta* moths. *Global Change Biology*
4. Dacks AM, Dacks JB, Christensen TA, Nighorn AJ (2006) The cloning of one putative octopamine receptor and two putative serotonin receptors from the tobacco hawkmoth, *Manduca sexta*. *Insect Biochemistry and Molecular Biology* 36: 741-747
5. Dacks AM, Christensen TA, Hildebrand JG (2006) Phylogeny of a serotonin-immunoreactive neuron in the primary olfactory center of the insect brain. *Journal of Comparative Neurology* 498: 727-746
6. Wilson CH, Christensen TA, Nighorn AJ (2007) Inhibition of nitric oxide and soluble guanylyl cyclase signaling affects olfactory neuron activity in the moth *Manduca sexta*. *J Comp Physiol A* 193: 715-728
7. Dacks AM, Christensen TA, Hildebrand JG (2008) Modulation of olfactory information processing in the antennal lobe of *Manduca sexta* by serotonin. *Journal of Neurophysiology* 99:2077-2085
8. Riffell J, Lei H, Christensen TA, Hildebrand JG (2009) Characterization and coding of behaviorally significant odor mixtures. *Current Biology* 19: 335-340

(b) Human Brain Mapping and Auditory Processing

1. Christensen TA, Antonucci SM, Lockwood JL, Kittleson M, Plante E (2008) Cortical and subcortical contributions to the attentive processing of speech. *NeuroReport* 19:1101-1105
2. Christensen TA, Lockwood JL, Almryde KR, Plante E (2010) Neural substrates of attentive listening assessed with a novel auditory Stroop task. *Frontiers in Human Neuroscience* 4: 1-12
3. Lockwood J, Almryde K, Fidler L, Plante E, Christensen T. (2010) Using functional magnetic resonance imaging and an auditory stroop interference task to isolate language-attention networks in the brain. *Journal of Investigative Medicine* 58: 145.
4. Christensen TA, Almryde KR, Fidler LJ, Lockwood JL, Antonucci SM, Plante E (2012) Modulating the focus of attention for spoken words at encoding affects frontoparietal activation for incidental verbal memory. *Int. Journal of Biomedical Imaging* 2012: 1-11

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

1. Christensen, T.A. (January, 2008). *Neural Networks for Attentive Listening to Spoken Language*, Lecture at the 2nd Auditory Cognitive Science Society Meeting, (Tucson, AZ).
2. Christensen, T.A. (November, 2011). *Rethinking How We Listen to Language*, Lecture at the Audiology Workshop “Hearing, Listening and Learning”, (Tucson, AZ).
3. Christensen, T.A. (November, 2012). *One Small Step for Man: What Makes Human Brains Human?* Master Seminar, (Tucson, AZ).

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008- 3; 2009- 8; 2010- 3; 2011- 2; 2012- 1;

C. Active Research Support

K01 DC008812 Christensen (PI) 04/01/07-03/31/12 (currently in no-cost extension)
NIDCD/NIH
Brain Mechanisms Linking Language, Attention and Memory
Role: PI

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2009

- April 6: Lab tour for SLHS donors
- Oct 5: Lab Tour for Sertoma Group
- Oct 27: Public lecture @ Campana del Rio Retirement Community, Tucson AZ
- Nov 7: Brain Recordings and Demonstrations at UA Junior Scientists Kids Day

2010

- Since September I have been a scientific mentor to Sarah Hindeyeh, a student at Sonoran Science Academy (Robert Hobbins, teacher). In January 2011, Sarah won 1st Prize in her science fair with the project: “Clarity Mind Meditation: Effects on Auditory Memory in Students with Attention Deficit Hyperactivity Disorder.”

2011

- Invited to consult with students in the Department of Architecture on plans to develop a working ranch for individuals on the autism spectrum.

2012

- April 13: Brain Recordings and Demonstrations at Vail Academy & High School’s Science Expo

University:

2008: Committee for development of a new UA School of Neuroscience (NOT APPROVED)

2009: Led a proposal to develop a new “UA Center for Neuroimaging”; NIH Recovery Act Limited Competition: Core Facility Renovation, Repair, and Improvement (G20); \$1.2M for renovations, furnishings and equipment (NOT FUNDED)

2010

- Faculty Mentor, Arizona Assurance Scholar Program
- Led a proposal to bring a TMS facility to the UA: NSF Major Research Instrumentation Grant Program; “Acquisition of a Navigated Transcranial Magnetic Stimulation System for the Study of Communication Disorders in the Human Brain”; \$450,000 (NOT FUNDED)

Professional/Scientific:

2008

- Created the first research webpage for the Department of Speech, Language & Hearing Sciences
- Reviewer for Journal of Neuroscience
- NIDCD Loan Repayment Program Review Panel (1 round)

2009

- Reviewer for Journal of Comparative Neurology
- Feb 20: Visit to Carondelet Neurological Institute to discuss possible collaboration

2010: Reviewer for Journal of Comparative Physiology (part A)

2011: Founder and organizer of the Brain Mapping Workgroup

BIOGRAPHICAL SKETCH

NAME Jennifer Casteix, MS, CCC-SLP		POSITION TITLE Clinical Assistant Professor, Department of Speech, Language, and Hearing Sciences, The University of Arizona	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of California, Santa Barbara	BA	06/87	Speech and Hearing Sci.
The University of Arizona, College of Science	MS	05/89	Speech Pathology

A. Personal Statement

I have worked as a pediatric Speech-language Pathologist in Southern Arizona for 24 years. Since 2009, I have been a Clinical Assistant Professor and Clinical Instructor in this department. I currently train graduate level students in evaluating and treating medically fragile and medically complex infants, toddlers, and children, children with neurodevelopmental disorders, and children with language and articulation delays and disorders. My areas of specialty include children and adolescents with Autism Spectrum Disorders, and medically fragile infants, toddlers and children with feeding and swallowing disorders. I train graduate students at the Grunewald-Blitz Clinic for Communication Disorders in Children as well as at Diamond Children’s Medical Center at the University of Arizona Medical Center. At Diamond Children’s, I am a member of the Pediatric Tracheostomy Task Force and Pediatric Tracheostomy Team, the NICU Feeding Task Force, and the Neonatal Developmental Follow-Up Clinic, all multidisciplinary teams across colleges, departments and units.

I am the Speech-Language faculty member of The University of Arizona’s Leadership Education in Neurodevelopmental and Related Disabilities (AZLEND) program, an interdisciplinary training program for professionals. This program provides intensive training to professionals across 14 disciplines in the area of autism and other neurodevelopmental disabilities.

I hold a joint appointment in the Department of Pediatrics in the College of Medicine.

C2. Invited Talks, Jan. 2008-present (Invited community lectures not included)

Casteix, J. and Abbey, B., (September, 2009). Therapeutic Swallow Studies, Presented at the Pediatric Interdisciplinary Feeding, Swallowing, and Nutrition Team Workshop, Tucson, AZ

D. Active Support

Interdisciplinary Leadership Education Excellence in Caring for Children with Neurodevelopmental and Related Disabilities (LEND) Grant

Sponsor: Health Resources and Services Administration

Dates: July 1, 2011, 2011-2016

Amount: 0.20 FTE

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

Board of Directors, Junior League of Tucson, Inc.
Board of Directors, Community Food Bank of Southern Arizona,
Community Affairs Board, Arizona Public Media
Trustee, National Foundation Board, Alpha Chi Omega
Chair, Board of Directors, Reach Out and Read Southern Arizona
Chair, Friends of the Festival for Tucson Festival of Books

University:

Arizona LEND Executive Committee and Curriculum Committee member
Consultant, Talking Matters! Part of the Speech and Language Initiative in North Pima County, funded by First Things First Arizona; tasked with providing training to day care providers.

Conference Organizer:

2009: Pediatric Feeding, Swallowing and Nutrition Team, Tucson, AZ

2010: Speech Sound Disorders in Children: Cleft Palate and Childhood Apraxia of Speech, Tucson, AZ

2011: Evidence-Based Assessment and Treatment of Bilingual Children with Communication Disorders, Tucson, AZ

2012: Pediatric TBI: From Injury through Recovery, Tucson, AZ

Member, Speech, Language and Hearing Sciences Advisory Board

Member, cross-departmental team (SLHS, Chem/BioChem, Radiology) that developed Chemistry Camp for Adolescents with ASD.

Member, cross-departmental and cross-unit team (SLHS, Radiology, Optical Sciences, NOAO) that developed Optics and Astronomy Camp for Adolescents with ASD.

Departmental committees include UACares, Development/Outreach, Staff Awards (chair), Colloquium, NSSLHA Advisor, Website and Social Media

Professional/Scientific:

Casteix, J., Brown, S., Schumann, P., Lee, P., Simpson, E., Matsunaga, T. "Chemistry Can Be Fun: Engaging Adolescents with Autism Spectrum Disorder or Asperger Syndrome in Chemistry through Visual Learning." Invited Poster Presentation. American Chemical Society National Meeting, 2010, Boston, Massachusetts.

Service Awards:

Compass Behavioral Healthcare, Inc., **Dynamic Duo Award for Community Impact** in Tucson and surrounding regions (2008)

YWCA Tucson **Woman on the Move** Honoree (2009)

American Chemical Society **ChemLuminary Award** for Local Programming: "Chemistry Can Be Fun" Camp for Adolescents with ASD (2010)

Junior League of Tucson, Inc., **Ann-Eve Johnson Award for Service to the Community** of Tucson (2011)

BIOGRAPHICAL SKETCH

NAME Cassandra Faux		POSITION TITLE Associate Clinical Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
The University of Arizona	BS	05/77	Speech, Language, & Hearing
The University of Arizona	MS	05/79	Speech-Language Pathology

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions below.

A. Personal Statement

I have been in clinical practice as a speech-language pathologist and have supervised graduate students in speech-language pathology for over 30 years. I am the coordinator of the speech-language pathology clinics in the Department of Speech, Language, and Hearing Sciences (SLHS). My interests are in pediatrics across all disorders and adults specific to motor speech disorders. I am the co-founder and director of the Sounds Good clinical program in the Grunewald-Blitz Clinic for Communication Disorders in Children (SLHS), the first clinic for children with cochlear implants in southern Arizona. I have created and implemented REACH, an early intervention program, and Be a STAR, a performing arts program, for children who are deaf and hard of hearing. In addition, I am the co-founder of the MDA/ALS clinic through the Department of Neurology at the University of Arizona Medical Center- South Campus.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

- 2003 Outstanding Clinical Achievement Award presented by the Arizona Speech-Language-Hearing-Association (ArSHA)
- 2004 DiCarlo Award Nominee for Outstanding Clinical Achievement (ASHA)
- 2006 Special praise award by recent graduates (Gail D. Burd, PhD, Associate Dean, College of Science)
- 2008 Special praise award by recent graduates (Gail D. Burd, PhD, Associate Dean, College of Science)
- 2010 Sixth American Speech-Language-Hearing Association (ASHA) Award for Continuing Education (January)
- 2011 American Speech-Language-Hearing Association (ASHA), Meritorious Mention poster

C1. Publications and Scholarly Work (Jan. 2005 – present)

- DeFeo, A.B., and Faux, C. (2003). Referral of adults with developmental disabilities for speech, language, and augmentative an alternative communication services. In F.P. Harris and J. Dean (Eds.) *Seminars in Hearing*, 24, 3, 235-245
- Faux, C., and DeFeo, A.B. (2006). The A-AAC-A: An observational tool for clinical supervisors. In *Perspectives on Administration and Supervision*, American Speech-Language-Hearing Association, Division 11, Vol 16, 2, June
- Faux, C. (2009). *Connect-a-Card*, Plural Publishing Company

C2. Invited Talks, Jan. 2008-present (Professional talks, workshops, keynotes – not community lectures or submitted presentations)

- Faux, C., Gallagher, K., Hoit, J., (2012). Is there quality of life for our ALS patients. Arizona Speech-Language-Hearing Association Convention, Phoenix AZ (April)

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2009- 1; 2010- 1; 2011- 1;

E. Major Service or Committee Contributions (Jan. 2008 – present)

Department/University:

2008 Ad-hoc Search Committee SLHS
2008 Ad-hoc HIPAA Committee SLHS
2009-2010 Ad-hoc Search SLHS
2008-2012 Curriculum Committee SLHS
2008-2012 Admissions Committee SLHS
2008-2012 Technical Standards SLHS

Local/Community:

2008-2012 Publication chair ArSHA
2008-2012 Convention program ArSHA
2008-2012 Muscular Dystrophy Association (volunteer services at clinic)
2008-2012 Technology Access Center of Tucson (board member)
2008-2009 Tucson Festival of Books Special Needs committee
2010 Program co-chair elect ArSHA
2010-2012 Hopefest
2011 Program chair (ArSHA)
2011-2012 Tucson Alliance for Autism (board member)

BIOGRAPHICAL SKETCH

NAME Frances P. Harris		POSITION TITLE Clinical Assistant Professor James S. and Dyan Pignatelli/Unisource Chair in Audiologic Rehabilitation for Adults	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Southwestern Louisiana	B.A.	12/1968	Speech Pathology
University of Arizona	M.A.	05/1969	Speech Pathology
University of Arizona	none	05/1972	Audiology
University of Arizona	Ph.D.	05/1988	Hearing Science

A. Personal Statement.

My area of interest is Adult Audiologic Rehabilitation. I hold the James S. and Dyan Pignatelli/Unisource Clinical Chair in Audiologic Rehabilitation for Adults, which is funded by private donations. I facilitate programs and services for adults with hearing loss and their communication partners and work with Doctor of Audiology students in these programs and in our regular on-campus Audiology Clinics. As part of the Living WELL with Hearing Loss program, we have an active on-going group program, have developed a website (<http://lwhl.arizona.edu/>), numerous brochures and materials, and an annual newsletter. Our outreach module includes programs for those who are unable or unwilling to attend our on-campus sessions and a community lecture series. Outreach has been conducted at Senior Centers and an assisted living facility. I am also part of the teaching faculty, and I assist the research faculty with projects concerning Audiologic Rehabilitation or the impact of hearing loss on adults and their families.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Recipient, 2005, ASHA Editor’s Award [Mahendra, N., Bayles, K. A., Harris, F. P. (2005). Effect of presentation modality on immediate and delayed recall in individuals with Alzheimer’s disease. *American Journal of Speech-Language Pathology*, 14 (2), 144-155]

Recipient, 2004 Hearing Journal, “Best Issue” [Harris, F., & Dean, J., (Eds). (2003). Assessment of individuals with developmental disabilities. *Seminars in Hearing*, 24, (3)]

Mentor Acknowledgement, 2004. American Academy Audiology, Student Research Award, Eric Carmichel, thesis: “Sound Localization Ability with Electronic Hearing Protectors”

C1. Publications and Scholarly Work (Jan. 2005 – present)

Marrone, N., Durkin, M.R., and Harris, F. (2012). Communication: A Two-Way Street: Simple Strategies Can Help People Live Well With Hearing Loss. *ASHA Leader* (accepted)

Marrone, N. and Harris, F. (2012). A multifaceted living well approach to the management of hearing loss with adults and their frequent communication partners. Perspectives on Aural Rehabilitation and Its Instrumentation. May 2012 19:5-14.

Norrix, N. and Harris, F. (2013). Disorders of Hearing in Adults in E. Plante and P. Beeson (Eds.), Communication and Communication Disorders, (4th ed., pp. 320-348). New York: Pearson

Carmichel, E., Harris, F.P., & Story, B. (2007). Effects of binaural electronic hearing protectors on localization and response time to sounds in the horizontal plane. Noise and Health, 9, 83-95.

Mahendra, N., Bayles, K. A., & Harris, F. P. (2005). Effect of presentation modality on immediate and delayed recall in individuals with Alzheimer's disease. American Journal of Speech-Language Pathology, 14 (2), 144-155.

C2. Invited Talks, Jan. 2008-present

Harris, F.P., Muller, T, Norrix, L, Peterson, J, Dean, J (April 23, 2012). Research, Collaborations, Outreach (aka: What we do in our spare time). Dept. of SLHS, University of Arizona Colloquium series.

Harris, F.P. (January 20, 2012). The Journey Continues: A Lifespan Perspective Focused on Success. The Deaf/Hard of Hearing Child's Journey to Listening and Spoken Language – A Workshop for Parents and Professionals, Tucson, AZ (Invited)

Montano, J., Seminar Panel Chair, F. Harris panel participant ((November 18, 2011). Infusing Audiologic Rehabilitation & Counseling Into Educational Curriculum & Externships. American Speech, Language, and Hearing Association, Annual Convention, San Diego, CA. (Invited Panel member).

Harris, F.P. & Marin, A. (September, 2010). Innovative Programs for Audiologic Rehabilitation for Adults at the University of Arizona. Academy of Rehabilitative Audiology. San Francisco, CA. (Submitted, session)

Harris, F.P. (January, 2010). The Emerging UA Model. Audiologic Rehabilitation for Adults: Evidence, Implementation & Resources. Tucson, AZ (Invited).

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008 - 0; 2009 - 0; 2010- 2; 2011- 4; 2012- 5; 2013 – 3 accepted for spring AAA

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

Presentations:

Harris, F.P. (Oct. 9, 2012). Hearing - How it Works and What Happens When it Doesn't. The BGs, Tucson, AZ.

Harris, F.P. (Nov 1, 2012). An Exploration of Hearing Loss: Why Wait? The Southwest Women's Charitable Club, Tucson, AZ.

Harris, F.P. (Nov 8, 2012). Living WELL with Hearing Loss. The Adult Loss of Hearing Association, Oro Valley, AZ.

Harris, F.P. (Mar. 15, 2012). Hearing Loss: Causes, Consequences, Solutions. Voyager RV Park, Tucson, AZ.

Harris, F.P. (Oct. 17, 2011). Hearing Loss: Causes, Consequences, Solutions. Oro Valley Library, Oro Valley, AZ

Harris, F.P. & Muller, T. (October 15, 2011). Technology for Better Hearing: Why Wait. University of Arizona, Tucson, AZ.

Harris F.P. (January 7, 8, 2011). Hearing Loss Help – Implantable Devices (CI and BAHA and Tinnitus. Lecture series, Green Valley, Tucson Arizona co-sponsored with Adult Loss of Hearing Association

Harris, F.P. (March 24, 26, 2011). Focus on Communication: For People with Hearing Loss, their Families and Friends. Lecture series, Green Valley, Tucson Arizona co-sponsored with Adult Loss of Hearing Association

Harris, F.P. (April 9, 10, 2010). Living Well with Hearing Loss. Lecture series, Green Valley, Tucson Arizona co-sponsored with Adult Loss of Hearing Association

Harris, F.P. (October 29, October 30, 2010). What do you do when hearing aids are not enough. Lecture series, Green Valley, Tucson Arizona co-sponsored with Adult Loss of Hearing Association

Harris, F.P. & Dean, J. (October 2009). Tricks and Treats for Better Hearing. The University of Arizona, Tucson, AZ

Harris, F.P. (September, October, 2009). Hearing Loss: Causes, Consequences, Solutions. Presented to: Amber Lights, Sept. 23; The Fountains, October 12; Atria Campana del Rio, Oct. 19, Tucson, AZ

University:

Department of Speech, Language, and Hearing Sciences

Department of Speech, Language and Hearing Sciences:

- Curriculum
- Building
- AuD Admissions
- Ad hoc search committees
- Ad hoc Website Development
- Ad hoc AuD Program
- Ad hoc graduation
- Honors and Awards (chair)

Professional/Scientific:

ASHA Sig 7

BIOGRAPHICAL SKETCH

NAME Janet L Hawley	POSITION TITLE Clinical Assistant Professor, Speech, Language Hearing Sciences department
janet@email.arizona.edu	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of California, Santa Barbara, California	BA	6/1980	Speech and Hearing
University of Arizona, Tucson, Arizona	MS	5/1982	Speech Language Pathology

A. Early in my career I worked at a speech-language pathologist providing clinical services in in- and out-patient hospital settings with a focus on neurogenic communication disorders. In addition I served a supervisor for the speech-language hearing department at Carondelet St. Mary's hospital and then managed a post-acute brain injury program at Carondelet St. Joseph's hospital, both in Tucson. I have been an active member of the Brain Injury Association of American (BIAA) and the Brain Injury Association of Arizona (BIAAz) serving as a state board member and a founding member and president of the Tucson Chapter of the BIAAz. In my current position, my work consists predominantly of supervising graduate level speech-language pathology students in the Speech, Language & Hearing Sciences department at the University of Arizona. I also teach an undergraduate course, focused on clinical writing and observation, and co-teach a graduate course aimed at preparing speech-language pathology students for a broad range of clinical activities. Areas of interest and clinical expertise include neurogenic communication disorders, voice, and foreign accent reduction. In terms of neurogenic communication disorders I have a passionate interest in aphasia and, in fact, initiated the first aphasia group at Carondelet St. Mary's Hospital in 1993, and continued to facilitate them at Carondelet St. Joseph's hospital (1995-1999) and at the University of Arizona from 2001 to present. I have ongoing collaboration with the Aphasia Research Program in the department. In terms of voice, I am certified in the Lee Silverman Voice Treatment program designed to treat individuals with Parkinson disease and run weekly transgender voice groups.

B. Honors and Awards

2003 Team Award for Excellence (University of Arizona)

1987 Carondelet St. Mary's Employee of the Year

1982 Outstanding Graduate Student, Department of Speech and Hearing Sciences (University of Arizona)

1982 Outstanding Teaching Assistant, Department of Speech and Hearing Sciences (University of Arizona)

1980 Outstanding Senior, Department of Speech and Hearing (University of California, Santa Barbara)

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2006-2007 President, Tucson Chapter, Brain Injury Association of Arizona

University:

2009-2012 Student Awards Committee Chair

2008-2010 Trainer, Graduate Teaching Assistant Orientation

2005-2012 HIPAA Committee Chair

Professional/Scientific:

2012: Ambassador, American Speech Language Hearing Association Foundation

2010-2011 Arizona Speech and Hearing Association: Convention Program Committee

2010-2011 Arizona Speech and Hearing Association: Convention Volunteer Coordinator

2009 Education Committee member, Brain Injury Association of Arizona

2008-2009 Arizona Speech and Hearing Association: Convention Program Committee

2005-2006 Grant Reviewer, National Institutes of Health

BIOGRAPHICAL SKETCH

<p>NAME Kaplan, Tracy L.</p>	<p>POSITION TITLE Clinical Assistant Professor in the Department of Speech, Language, & Hearing Sciences</p>
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
New Mexico State University Las Cruces, NM	BS	05/03	Major: Education/ Communication Disorders; Minor: Voice
University of Arizona Tucson, AZ	MS	05/05	Speech, Language, & Hearing Sciences
AZLEND Arizona Leadership Education in Neurodevelopmental and Related Disabilities	Fellowship	05/12	Public Health/Health Administration; Maternal & Child Health
University of Arizona Tucson, AZ	MPH	In Progress	Maternal & Child Health

Personal Statement

I am a Clinical Assistant Professor working at the Wings on Words Preschool & Toddler Program, which is affiliated with the University of Arizona’s Department of Speech, Language, & Hearing Sciences. In this setting, I help oversee our clinical program, deliver skilled speech and language services to children 2-6 years of age, as well as provide training and supervision for undergraduate and graduate level students from the University of Arizona. Additionally, I have been working as a program mentor and collaborator on the First Things First “Talking Matters!” grand-funded program for the past 3 years. Among my other involvements that extend beyond the University setting, I provide pediatric speech-language therapy services through a community agency, Mealtime Connections, and adult speech-language therapy services at Healthsouth Rehabilitation Hospital of Southern Arizona. I have also worked as an instructor for the Arizona Early Intervention Program (AzEIP) Standards of Practice provider’s examination. My areas of specialization include: early intervention and child speech and language disorders as well as pediatric feeding/swallowing disorders. I am working toward a Master of Public Health in Family and Child Health at the Mel & Enid Zuckerman College of Public Health in order to integrate my clinical and professional experience with public health training. This endeavor has been supported by my participation in the Arizona LEND program, wherein I was selected as the Public Health/Health Administration Trainee with expertise in Speech-Language Pathology. I have interests in effecting policy changes at the local, state and national levels to improve quality and access to care for children and families whom require developmental support.

Major Service or Committee Contributions (Jan. 2008 – present)

2010 - Present Program Mentor, First Things First “Talking Matters!” Grant-funded Program, Department of Speech, Language, & Hearing Sciences, University of Arizona, Tucson, Arizona

Department of Speech, Language, and Hearing Sciences

- 2011 - Present Arizona Leadership Education in Neurodevelopmental and Related Disabilities (AZLEND) Public Health/Health Administration Trainee Graduate, Department of Pediatrics, College of Medicine, University of Arizona, Tucson, Arizona
- 2012 - Present Instructor, Arizona Early Intervention Program (AzEIP) Standards of Practice Test Preparation, Tucson, Arizona
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BIOGRAPHICAL SKETCH

NAME Kiernan, Barbara Jean	POSITION TITLE Director, Scottish Rite – University of Arizona Child Language Center
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Michigan	B.A.	06/66	Spanish Language & Lit
University of Madrid, Spain	Coursework	08/64 – 06/65	Spanish Language & Lit
University of Michigan	M.A.	06/71	Spanish Language & Lit
University of Arizona	Ph.D.	05/93	Speech, Language & Hearing Sciences
University of Arizona	Post-Doc	05/94	Early Intervention

A. Personal Statement

How do children develop speech, language, and literacy? What conditions facilitate (or interfere) with these processes, especially when a speech or language disorder is present? How do we best provide early intervention to help children overcome or compensate for these early obstacles? These questions guide my work with children, clinicians, parents, and teachers. As Director of the Scottish Rite-University of Arizona Child Language Center, I have dedicated the past 15 years to a) building model programs to serve children (e.g., Wings on Words preschool & toddler program and clinic), b) creating community outreach and professional development programs (e.g., First Things First - Talking Matters), and c) teaching students to utilize research-based methods to facilitate speech, language, and literacy in young children (e.g., 10 undergraduate interns each semester). The success of these programs has involved significant grant writing, program development, fundraising to sustain operations and provide children with scholarships, and active engagement of the community in southeastern Arizona through workshops, presentations, and consultation. It has also involved my support and facilitation of research efforts in our department that can benefit from the Center’s population or setting. As a result, the Child Language Center’s programs have become a unique asset to our community in the area of early childhood, speech and language concerns, and professional development. My goal is for these clinical, educational, and outreach efforts to support the department’s efforts to collaborate, consult, and work together with others to strengthen and expand resources to children, families, and UA students studying to become SLPs.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Kiernan, B. (2005). MPA Metropolitan Pima Alliance Common Ground Award for the Development of Milagro Playground at Jacobs Park.

Kiernan, B. (2005). Catalina Rotary Club Award for Special Excellence in Service for Milagro Playgroud Project - Outstanding Community Service and Collaborative Effort.

Kiernan, B. (1987). Arlene Matkin Award presented to support the investigation of bilingual and monolingual vocabulary learning by predominantly Navajo speaking preschool children. American Speech-Language-Hearing Foundation.

Kiernan, B. (1985). Honors of the Association awarded to outgoing President and Founding Member, Venezuela TESOL (Teachers of English to Students of Other Languages).

Kiernan, B. (1985). Faculty Recognition Award given upon the successful completion of Maryville College Masters Project in Venezuela, Maryville College of St. Louis, Mo.

D. Active Support for Program Development

Kiernan, B. (PI). (July 2009 – present). Talking Matters: Helping teachers and parents spot speech-language problems early, make appropriate referrals, and facilitate communication in the classroom and home. A First Things First grant, \$135,000 annually.

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community: Tucson Festival of Books, Steering Committee & Chair of Children's Area 2008 -2010

- Catalina Rotary Club of Tucson President 2009-10; BOD since 2008
- Steering Committee and fundraising chair for creation of Milagro Playground at Jacobs Park, a universally accessible, 2-acre playground for children of all abilities, including those with sensory, motor, or cognitive impairment. Funds raised exceeded \$1,000,000.
- First Things First – Cross Regional Boundary Taskforce 2012-13 - member
- United Way - First Focus on Kids – 2008 - present – member

University:

- Development and funding of UA TALKline in SpH Department
- Development and funding of Talking Matters' Parent Video Webpage; a permanent resource to be housed on the SpH Website. Launch scheduled for spring 2013.

Professional/Scientific:

Examples of Program development:

- 2005-2007: As the Tucson-based Director of the Tempe Early Reading First grant, I a) directed assessment and data collection; b) supported professional training activities provided by mentors and instructors, and c) administered a local budget of \$250,000.
 - 2007-2010: As Director of the Child Language Center, I wrote a series of competitive grants to Angel Charity for Children (\$750,000), The City of Tucson (\$95,000), Pima County (70,000), United Way FTF Toddler grant (\$95,000) and the Tohono O'odham Nation (\$37,000) that were successful in securing sufficient funding to a) construct a new building to house preschool programs, b) renovate original building to house a toddler program and a clinic for children with speech and language disorders, c) develop a Parent-Child Resource Center and Library, and d) upgrade all electrical and HVAC systems to achieve optimum energy efficiency and cost effectiveness of new facilities.
 - 2010-2012: As Director of the Talking Matters Team funded by First Things First, I created a TALKline in the Department that can be used by parents and others to speak with an SLP about concerns they have for their children's development of speech and language. In addition, we have just completed the filming of 6 parent training videos (in conjunction with AZPM) and related resource materials that will be available in spring 2013 on the Talking Matters page of the UA SpH website.
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NAME Cuzner, Suzanne Lea	POSITION TITLE Clinical Assistant Professor
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Colorado at Boulder	B.A.	05/81	Communication Disorders and Speech Science
University of Arizona	M.S.	12/90	Speech and Hearing Sciences

A. Personal Statement

I provide clinical training to graduate level students in a school setting that provides academic year and summer camp programs at Wings on Words Preschool and Toddler Program. I train graduate clinicians in the evaluation and treatment of speech and language disorders in preschool and kindergarten-age children with specific language impairment, articulation/phonological disorders, childhood apraxia of speech, cleft palate, stuttering, hearing impairment, and autism spectrum disorders in English and Spanish using both pull-out and classroom based intervention methods. I have also worked collecting data for a research project on phonological development in monolingual and bilingual Spanish-speaking children.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Jean R. Guloien Outstanding Student Award in Speech-Language Pathology

E. Major Service or Committee Contributions (Jan. 2008 – present)

University:

HIPAA committee, SLHS

BIOGRAPHICAL SKETCH

NAME McGrath, Kathe E. K.	POSITION TITLE
kmcgrath	Clinical Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Arizona, Tucson, Arizona	BA	05/80	Psychology/Child Development
University of Arizona, Tucson, Arizona	MS	05/87	Speech, Language and Hearing Sciences

A. Personal Statement

I am currently a Clinical Supervisor. Each semester, I supervise at least 4 first year graduate students and several second year graduate students. My interests clinically are in Early Intervention/Pediatrics (I am Hanen certified) and autism spectrum disorders (I am in charge of the Autism Clinic Extension based at the Tucson Alliance for Autism). The clients on my caseload (that I train my graduate student clinicians to treat) reflect my interests. Each semester I offer, with a community based SLP colleague, Hanen's *It Takes Two to Talk* parent training classes which offer parent support and training for their children with delayed speech and language as well as experience for second year graduate students. At ACE, one of the services offered is Social Communication groups for children aged 7-12. Prior to working at the University of Arizona, I was in private practice and contracted with the State of Arizona to provide services both in the Tucson community and on the Tohono O'Odham Indian Nation.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

Award for Continuing Education: 2008, 2009, 2010, 2011

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

Board Member of Technology Access Center of Tucson
Board Member of Tucson Alliance for Autism

University:

Member of SLHS Department Admissions Committee
Responsible for SLHS Clinic organization and cleanliness

BIOGRAPHICAL SKETCH

NAME Muller, Thomas, AuD, CCC-A, FAAA	POSITION TITLE Clinical Associate Professor; Clinic Coordinator for Audiology
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of Colorado	BS	05/88	Com. Dis. & Psychology
University of Arizona	MS	05/90	Audiology
Arizona School of Health Sciences	AuD	05/02	Audiology

A. Personal Statement

Dr. Muller was, for seven years, Director of the Audiology Department at Thomas-Davis Medical Centers in Tucson. Tom has been with the University of Arizona Department of Speech, Language, and Hearing Sciences since 1997, initially as a Clinical Instructor and ultimately as Clinical Associate Professor and Clinical Division Leader/Clinic Coordinator for Audiology. In the clinic, he works primarily adult hearing impaired population, hearing aids and cochlear implants. He is responsible coursework regarding hearing aids, cochlear implants and hearing conservation. His clinical and research interests include the psychosocial implications of hearing impairment in the elderly and advanced hearing instrument technology. Dr. Muller manages the Pima County Hearing Aid Bank, a cooperative program of the Sertoma, the Community Outreach Program for the Deaf and the U of A Hearing Clinic through which low-income individuals can obtain hearing aids at a very low cost. He is a commissioner for and past chair of the Arizona Commission for the Deaf and Hard of Hearing, and is a member in good standing of the American Academy of Audiology, the American Speech-Language-Hearing Association and the Arizona Speech-Language-Hearing Association. In 2010 he won the University of Arizona's College of Science Innovation in Teaching for his work developing a model of clinical provision and supervision to foster independence in 3rd year AuD students. In 2011 he won the Larry Mauldin Award for Excellence in Education, a national award given to one audiologist each year.

B. Honors and Awards (Include ASHA Fellow, Dept/College/UA Awards)

- 2011 Larry Mauldin Award for Excellence in Audiology Education
- 2010 UA College of Science Innovations in Teaching Award
- 2010 Ben's Bells Award for Community Service
- 2009 Tucson Interfaith HIV/AIDS Network Board Member of the Year Award
- 1999 UA Speech & Hearing Sciences Employee of the Year Award
- 1990 UA Speech & Haring Sciences Audiology Graduate Student of the Year Award

C2. Invited Talks, Jan. 2008-present

Muller, T (April 11, 2008) Demographics of hearing loss and trends in amplification. Presentation to the 35th Anniversary of the Community Outreach Program for the Deaf Workshop, Tucson, AZ

Muller, T (May 17, 2010) Introduction to Hearing Loss, Its Measurement, and Its Consequences. Part of Arizona Commission for the Deaf and Hard of Hearing's Hard of Hearing training for professionals, Tucson, AZ.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008-1; 2009-0; 2010-1; 2011-2; 2012-2;

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2007-Present Arizona Commission for the Deaf and Hard of Hearing:

Governor-appointed commissioner 2007-present; Chair 2009-2010

2006-Present Tucson Interfaith HIV/AIDS Network:

Board member 2006-present; Board President 2008-2010

1997-2010 Tucson Hearing Society: Board Member

2004 & 2011 Arizona Speech-Language-Hearing Association Audiology: Program Coordinator

1998-Present Pima County Hearing Aid Bank: Manager

University:

2001-Present Curriculum Committee

2002-Present Disability Resource Center Liason/Technical Standards

1997-Present AuD Planning Committee (Unofficial, but meets monthly)

BIOGRAPHICAL SKETCH

NAME Norrix, Linda Weiland	POSITION TITLE Clinical Assistant Professor
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
University of WI-Madison	B.S.	12/1981	Vocational Rehabilitation Counseling
Denver University	M.A.	08/1986	Speech & Hearing Science
The University of Arizona	Ph.D.	05/1995	Speech, Language, & Hearing Sciences

A. Personal Statement

My clinical interests are in the area of pediatric audiology (behavioral and electrophysiology). I also have a special interest in auditory processing disorder assessments and intervention. I supervise AuD students at several off-site clinics including an early intervention preschool and a local hospital. My research interests include electrophysiology, auditory processing disorders and educational audiology.

C1. Publications and Scholarly Work

Norrix, L, Burgan, B, Ramirez, N, Velenovsky, D. (in press). Interaural Multiple Frequency Tympanometry Measures: Clinical utility for unilateral conductive hearing loss. J Am Acad Audiol.

Norrix, L., & Harris, F. (2012). Disorders of Hearing in Adults. In E. Plante & P. Beeson (Eds.), *Communication and Communication Disorders* (4th ed.), Needham Heights, MA, Allyn & Bacon.

Norrix, L, Trepanier, S, Atlas, M, Kim, D. (2012). The auditory brainstem response: latencies obtained in children while under general anesthesia. J Am Acad Audiol, 23, 57-63.

Boliek, C, Keintz, C, Norrix, L., Obrzut, J (2010). Auditory-visual Perception of Speech in Children with Learning Disabilities: The McGurk Effect, Canadian Journal of Speech-Language Pathology and Audiology, 34, 124-131.

Norrix, L.W., Plante, E., & Vance, R., & Boliek, C. (2007). Auditory-Visual Integration for Speech by Children with and without Specific Language Impairment. Journal of speech, Language, and Hearing Research, 50, 1639-1651.

Norrix, L.W., Plante, E., & Vance, R. (2006). Auditory-visual speech integration by adults with and without language-learning disabilities. Journal of Communication Disorders, 39, 22-36.

C2. Invited Talks

Norrix, L, Marrone, N, Faux, C. (2012). How to build a toolkit for evaluating and managing auditory processing disorders. Arizona Speech Language and Hearing Association Annual Conference, April 20.

C3. Number of peer-reviewed/scientific conference presentations (2008-present)

2008-0; 2009-0; 2010-1; 2011-1; 2012-1

D. Active Research Support

Innovations for Electrophysiologic Assessment of Infant Hearing (Cone et al), 2010-current

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community: Faux, C, Dean, J, Norrix, L. (2010). Hear It, Learn It, Say It. Community Lecture at University of Arizona.

University: Human Subjects Committee (2008-2010)
AuD Admissions Committee (2011-2012)
AuD exams Committee (2009-2012)

Professional/Scientific: Norrix (2012). Pediatric Audiology Childhood Hearing Loss Part 2. Video presentation funded by Arizona Department of Health Services and available online through the University of AZ website.

BIOGRAPHICAL SKETCH

NAME Peterson, Julie M.	POSITION TITLE Clinical Instructor, Department of Speech, Language and Hearing Sciences
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Univ of Arizona – Tucson, AZ	B.S.	05/86	Speech & Hearing Sci
Univ of Arizona – Tucson, AZ	M.S.	05/88	Speech & Hearing Sci
A.T. Still Univ – Mesa, AZ (online)	Au.D.	coursework completed 10/12	Audiology

A. Personal Statement

I provide diagnostic testing, hearing aid dispensing and counseling for adults and children, in conjunction with the clinical instruction and training of Doctor of Audiology students. Additional involvement includes coordinating Au.D. student responsibilities during their on-site practica, developing and implementing the clinic’s tinnitus program, and primary responsibility for the clinic’s involvement in the monthly St. Andrew’s Clinica pediatric outreach program in Nogales, Arizona.

BIOGRAPHICAL SKETCH

NAME Wymer-Jensen, Carole J.	POSITION TITLE Clinical Assistant Professor
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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
The University of Arizona	B.A.	05/86	Communication
The University of Arizona	M.S.	05/96	Speech & Hearing Science

A. Personal Statement

I supervise graduate clinicians in the provision of pediatric speech and language therapy at the Grunewald Blitz Center for Pediatric Communication Disorders (GBC). I specialize in treatment for non-verbal children who use augmentative and alternative communication (AAC) and treatment for preschool and school children with speech and language disorders. In addition, I am the Special Needs Coordinator for Talking Matters, an initiative funded by First Things First of Arizona to teach preschool teachers a) how to identify and refer preschool children who may be at risk for speech and language delay and b) how to use language facilitation techniques to enhance language development in the classroom for all children, with and without deficits.

C1. Publications and Scholarly Work (Jan. 2005 – present)

Hogan, T., Bridges, B., Wymer, C & Volk, R. (2010). Tessa: A Preschool Child with SLI.

In Chabon, S. & Cohn, E. (Eds), *The Communication Disorders Casebook – Learning By Example* (pp. 142 – 156). Upper Saddle River: Pearson.

C2. Invited Talks, Jan. 2008-present

E. Major Service or Committee Contributions (Jan. 2008 – present)

Local/Community:

2012 First Things First Regional Boundary Task Force

University:

2009 Ad Hoc Clinic Search Committee

2010 Ad Hoc Clinic Search Committee

2011 Clinic Finance Committee
