

## **Gerald C. Imaezue, Ph.D.**

Assistant Professor

Department of Communication Sciences and Disorders

University of South Florida, Tampa FL

### **ADDRESS**

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USA

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### **EDUCATION**

- 2023: Ph.D., Speech-Language-Hearing Sciences  
The Graduate Center, City University of New York  
Dissertation: *Recursive functional learning in nonfluent aphasia*  
*Brownstein Fellowship for Excellence in Dissertation Writing*
- 2021: MPhil., Speech-Language-Hearing Sciences  
The Graduate Center, City University of New York  
Thesis: *Verbal self-feedback as treatment for nonfluent aphasia*
- 2015: M.Ed. (Distinction), Audiology and Speech Pathology  
University of Ibadan  
Thesis: *Effect of vocal hygiene training and resonant voice therapy on vocal fatigue in teachers*
- 2012: B.Ed. (First Class Honors), Special Education [Audiology and Speech Pathology]; and Political Science  
University of Ibadan

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### **RELEVANT PROFESSIONAL EXPERIENCE**

#### ***Positions and Employment***

- 2023 – Present: Assistant Professor (tenure track), University of South Florida (USF)
- 2023 – Present: Director, Brain and Aphasia Recovery Lab (BARLab), USF
- 2023: Adjunct Instructor, Queens College, The City University of New York (CUNY)
- 2021 & 2023: Adjunct Instructor, New York University
- 2021: Adjunct Instructor, Rutgers University
- 2021: Intern ML/NLP Researcher, GeoCloud Technologies LLC
- 2019: Adjunct Instructor, Molloy University
- 2018 – 2023: Graduate Assistant, CUNY Graduate Center
- 2015 – 2018: Self-employed Speech-Language Pathologist, Ibadan
- 2014 – 2015: Teaching Assistant, University of Ibadan
- 2013 – 2014: National Youth Service Corps (Nigeria)

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## TEACHING EXPERIENCE

### **University of South Florida**

Courses taught:     Anatomy and Physiology of Speech and Hearing Mechanisms (BSc level)  
                          Aphasia and Related Disorders (MS level)  
                          Directed Research (PhD and BSc levels)  
                          Neuroanatomy (BSc level)

### **New York University**

Courses taught:     Critical Evaluation of Research in Communicative Sciences and Disorders  
                          (MS level)  
                          Motor Speech Disorders (MS level)

### **Queens College, The City University of New York**

Course taught:     Speech Science (BSc level)

### **Rutgers University, Newark**

Course taught:     Research Principles of Evidence-Based Practice in Speech-Language  
                          Pathology (MS level)

### **Molloy University, New York**

Course taught:     Anatomy and Physiology of Speech Mechanisms (BSc level)

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## CONTRIBUTIONS TO SCIENCE (Asterisk\* = Current or Former Students)

### **Journal Articles**

1. **Imaezue, G.C.**, & \*Marampelly, H. (in press). ABCD: A simulation method for accelerating virtual conversational agents with applications in aphasia therapy. *Journal of Speech, Language, and Hearing Research*
2. **Imaezue, G.C.** (2024). Recursive self-feedback improves spontaneous speech in chronic aphasia within real-world settings. *Aphasiology*. Advance online publication. 1-21. <https://doi.org/10.1080/02687038.2024.2432024>
3. **Imaezue, G.C.**, Tchernichovski, O. & Goral, M. (2024). Self-improved language production in nonfluent aphasia through automated recursive self-feedback. *American Journal of Speech-Language Pathology*, 33(6S), 3343-3357. [https://doi.org/10.1044/2024\\_AJSLP-23-00320](https://doi.org/10.1044/2024_AJSLP-23-00320)
4. **Imaezue, G.C.** (2024). Transfer effects of recursive self-feedback on connected speech production in patients with chronic nonfluent aphasia: Preliminary results. *Aphasiology*, 39(3), 346-362, 1-17. <https://doi.org/10.1080/02687038.2024.2351010>
5. **Imaezue, G. C.** & Goral, M. (2024). Toward self-regulated learning in aphasia rehabilitation: A proposed framework. *Aphasiology*, 38(10), 1668–1683. <https://doi.org/10.1080/02687038.2024.2323219>

6. **Imaezue, G.C.**, Tchernichovski, O. & Goral, M. (2023). Recursive self-feedback improved speech fluency in two patients with chronic nonfluent aphasia. *Aphasiology*, 38(5), 838-861. <https://doi.org/10.1080/02687038.2023.2239511>
7. Bishop, J., Chen, Z., Antolovic, K., Grebe, L., Hwang Hae, K., **Imaezue, G.**, Kistanova, E., Kyung Eun, L., Paulino, K. & Zhang, S. (2021). Autistic traits predict spectral correlates of vowel intelligibility for female speakers. *Journal of Autism and Developmental Disorders*, 52(5), 2344-2349. [doi.org/10.1007/s10803-021-05087-5](https://doi.org/10.1007/s10803-021-05087-5)
8. **Imaezue G.C.** (2017). Brain localization and the integrated systems hypothesis: Evidence from Broca's region. *Journal of Behavioral and Brain Science*, 7(11), 511-519. <https://doi.org/10.4236/jbbs.2017.711036>
9. **Imaezue G.C.** & Oyebola, M. (2017). Treatment of vocal fatigue in teachers. *Journal of Otolaryngology-ENT Research*, 7(1), 00189. <https://doi.org/10.15406/joentr.2017.07.00189>
10. **Imaezue, G.C.** & Salako, I.A. (2017). Aphasia rehabilitation of auditory word comprehension-impaired stroke patients. *Journal of Neurology and Translational Neuroscience*, 5(1): 1077.
11. **Imaezue, G.C.**, Salako, I.A. & Akinmurele, A.T. (2017). Selective sentence production deficit in an agrammatic Yoruba-English bilingual patient with minor stroke: A case study. *Journal of Behavioral and Brain Science*, 7(9), 416- 424. <https://doi.org/10.4236/jbbs.2017.79030>

### **Manuscripts in Review/Preparation**

1. **Imaezue, G.C.**, & Goral, M. (in review). Effects of feedback type and practice schedule on speech fluency during script treatment for nonfluent aphasia. *Journal of Communication Disorders*
2. **Imaezue, G.C.**, \*Davis, C., \*Maram, K.V., \*Ajayi, D., & Goral, M. (in review). Recursive self-feedback enables target language production in bilingual aphasia with pathological language mixing. *Brain and Language*
3. **Imaezue, G.C.**, \*Ajayi, D. & \*Davis, C. (under review). Treatment of aphasia in linguistically diverse populations: Current and future directions. *Frontiers in Psychology*
4. **Imaezue, G.C.**, & \*Marampelly, H. (in preparation). MALT: Simulation of multilingual AI-agent for language therapy in diverse languages.
5. **Imaezue, G.C.**, Maram, K.V., & Butta, R.K. (in preparation). Simulation of aphasic speech dialogues: Differences between standard and advanced reasoning LLMs.
6. \*Davis, C., \*Salas, C., \*Pointdexter, K-L., \*Azemard, J., \*Ajayi, D., & **Imaezue, G.C.**, (in preparation). Patterns of pathological language mixing during spontaneous speech in bilingual aphasia.
7. Davies, C., Ajayi, D., & **Imaezue, G.C.** (in preparation). Speech synchronization techniques for improving outcomes in nonfluent aphasia: A scoping and systematic review.

### **Projects in Progress**

1. **Imaezue, G.C.**, & \*Davis., C. (in progress). Mirror speech entrainment: Entraining speech in real-time using artificial self-feedback.
2. **Imaezue, G.C.** (in progress). Audiovisual speech with recursive self-feedback in aphasia.

### **Invited Book Chapter**

1. Wallace, G., Shibamoto, I., Onishi T., Mashima, P., **Imaezue, G.C.**, Stark, J., Fredericks, S. & Wong, A. (2024). Discussion of neurorehabilitation from the voices of international visionaries. In Wallace, G. (Eds.), *Cultural Sensitivity and Responsiveness in Neurorehabilitation: A Personalized Approach for Speech-Language Pathologists*. Plural Publishing.

### **Peer Reviewed Conference Presentations**

1. Wallace, G., **Imaezue, G.C.**, Kong, A.P-H., Malcom, T., Roberts, L. & Postman, W. (submitted). Scoping evidence to support speech-language pathology neurorehabilitation for people from diverse communities. *To be presented at the 2025 American Speech-Language-Hearing Association Convention, Washington D.C., District of Columbia*
2. **Imaezue, G.C.**, & \*Marampelly, H. (submitted). ABCD: A simulation method for accelerating virtual conversational agents for speech therapy. *To be presented at the 2025 American Speech-Language-Hearing Association Convention, Washington D.C., District of Columbia*
3. **Imaezue, G.C.**, \*Davis, C., \*Maram, K.V., \*Ajayi, D., & Goral, M. (in preparation). Recursive self-feedback enables target language production in bilingual aphasia with pathological language mixing. *To be presented at the 63rd Annual Meeting of the Academy of Aphasia, San Diego California*
4. \*Davis, C., \*Salas, C., \*Azemard, J., \*Ajayi, D., \*Mineo, G., \*Pointdexter, K-L., Goral, M., & **Imaezue, G.C.**, (in preparation). Patterns of pathological language mixing during spontaneous speech in bilingual aphasia. *To be presented at the 63rd Annual Meeting of the Academy of Aphasia, San Diego California*
5. **Imaezue, G.C.**, \*Davis, C. & \*Ajayi, D. (2025, May). Bridging aphasia care: Revolutionizing self-directed treatments for aphasia. *To be presented at the Brain Injury Florida 3<sup>rd</sup> Annual Educational Conference, Orlando, Florida (Oral)*
6. \*Ajayi, D. & **Imaezue, G.C.** (2025, April). Neural correlates of recursive self-feedback in aphasia: An fNIRS study. *Presented at the 47<sup>th</sup> Annual Convention of the National Black Association for Speech-Language and Hearing, Long Beach, California (Oral)*
7. Wallace, G., **Imaezue, G.C.**, Kong, A.P-H., Malcom, T., Roberts, L. & Postman, W. (2025, April). Evidence to support SLP neurorehabilitation within the Black community. *Presented at the 47<sup>th</sup> Annual Convention of the National Black Association for Speech-Language and Hearing, Long Beach, California (Oral)*
8. \*Davis, C. & **Imaezue, G.C.** (2025, March). Mirror speech entrainment: A novel technique for entraining speech production in aphasia. *Presented at the Cognitive Neuroscience Society 2025 Annual Meeting, Boston, Massachusetts (Poster)*
9. \*Mineo, G., \*Salas, C., \*Poindexter, K-L., \*Davis, C., \*Ajayi, D. & **Imaezue, G.C.** (2025, February). Effect of task type and language of task elicitation on pathological language mixing in bilingual aphasia. *Presented at the 2025 Florida Undergraduate Research Conference, Tampa, Florida (Poster)*

10. \*Salas, C., \*Mineo, G., \*Poindexter, K-L., \*Ajayi, D., \*Davis, C. & **Imaezue, G.C.** (2025, February). The impact of language mixing on word class usage in a bilingual person with aphasia. *Presented at the 2025 Florida Undergraduate Research Conference*, Tampa, Florida (Poster)
11. Wallace, G., **Imaezue, G.C.**, Kong, A.P-H., Malcom, T., Postman, W., Roberts, L. & Portilo, I. (2024, November). The evidence-base for neurorehabilitation of acquired and degenerative communication disorders in diverse populations: What is available, what is needed, and reasons why. *Presented at the Academy of Neurologic Communication Disorders and Sciences (ANCDS) 2024 Annual Scientific Meeting*, Virtual (Oral)
12. **Imaezue, G.C.**, \*Davis, C., \*Salas., C., \*Azmerad, J., \*Mineo, G. & Goral, M. (2024, November). Effect of feedback-based interventions and daily practice schedule on sentence production in persons with chronic nonfluent aphasia. *Presented at the 101<sup>st</sup> Annual Conference of the American Congress of Rehabilitation Medicine (ACRM)*, Dallas, Texas (Poster)
13. **Imaezue, G.C.**, \*Marampelly, H., \*Azemard, J., \*Mineo, G., \*Salas, C. & Licato, J. (2024, October). Re-Agent: A feasibility study on the performance of Response Elaboration AI agents across semantic parameters. *Presented at the 2<sup>nd</sup> University of South Florida Artificial Intelligence + X Symposium*, Tampa, Florida (Oral)
14. **Imaezue, G.C.**, \*Marampelly, H., \*Azemard, J., \*Mineo, G. & \*Salas, C. (2024, October). Multilingual AI-Agent for Language Therapy (MALT) in diverse languages: A feasibility study with English, Hindi and Spanish speakers. *Presented at the 2<sup>nd</sup> University of South Florida Artificial Intelligence + X Symposium*, Tampa, Florida (Poster)
15. **Imaezue, G.C.** (2024, October). Recursive self-feedback enabled self-repaired spontaneous speech in chronic aphasia within real-world settings. *Presented at the 62<sup>nd</sup> Annual Meeting of the Academy of Aphasia*, Nara, Japan (Poster)
16. De Marchi, S., El Jaouhari, M., **Imaezue, G.C.** & Goral, M. (2023, October). Does emotional valence affect semi-spontaneous language production in aphasia? *Presented at the 61<sup>st</sup> Annual Meeting of the Academy of Aphasia*, Reading, England, (Poster)
17. **Imaezue, G.C.**, Tchernichovski, O., Obler, L.K. & Goral, M. (2023, October). Self-improvement in nonfluent aphasia through recursive functional learning. *Presented at the 61<sup>st</sup> Annual Meeting of the Academy of Aphasia*, Reading, England (Oral)
18. **Imaezue, G.C.**, Tchernichovski, O., Obler, L.K. & Goral, M. (2023, June). Effect of recursive self-feedback on spoken language performance in nonfluent aphasia: A replication study. *Presented at the 52<sup>nd</sup> Clinical Aphasiology Conference*, Atlantic City, New Jersey (Oral)
19. **Imaezue G.C.**, Tchernichovski O. & Goral, M. (2021, October). Automated verbal self-feedback for improving speech fluency in patients with mild chronic nonfluent aphasia. *Presented at the 59th Annual Meeting of the Academy of Aphasia*, Virtual (Poster)
20. **Imaezue G.C.**, Tchernichovski O., Gorman, K. & Goral, M. (2021, September). A machine learning approach to posttreatment follow-up in aphasia rehabilitation: A preliminary report. *Presented at the 15th Annual Eleanor M. Saffran Conference on Cognitive Neuroscience and Rehabilitation of Communication Disorders*, Philadelphia, Pennsylvania (Poster)
21. **Imaezue, G.C.** (2018, September). On the application of neural multifunctionality concept to aphasia rehabilitation. *Presented at the 13th Annual Eleanor M. Saffran Conference on*

*Cognitive Neuroscience and Rehabilitation of Communication Disorders*, Philadelphia, Pennsylvania (Poster)

22. **Imaezue, G.C.** & Oyebola, M. (2018, June). Towards a culturally sensitive approach to aphasia rehabilitation of stroke survivors in Nigeria. *Presented at the 48th Clinical Aphasiology Conference*, Austin, Texas (Poster)
23. **Imaezue, G.C.** (2017, October). Developing a new treatment model for stroke-induced aphasia: Is there hope? *Frontiers in Human Neuroscience Conference Abstract: The 55<sup>th</sup> Annual Meeting of the Academy of Aphasia*. doi: 10.3389/conf.fnhum.2017.223.00093 (Poster)

### **Other Invited Talks**

1. **Imaezue, G.C.** (2025, February). Toward universal treatments for aphasia. *Presented at the Department of Neurology Grand Rounds, USF Health Morsani College of Medicine at the University of South Florida, Tampa FL*
2. **Imaezue, G.C.** (2014, June). Take care of your voice: It is your most important tool. *Presented at the 6<sup>th</sup> Total School Support Seminar/Exhibition, Lagos, Nigeria*

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### **PATENTS/INVENTION DISCLOSURES (Asterisk\* = Current or Former Students)**

Invention: Adaptive Audio and Audiovisual Recursive Self-feedback for Speech Therapy  
Inventors: **Gerald C. Imaezue**, Ofer Tchernichovski & Mira Goral  
US Patent App#: 19/043,386 (patent pending)

Invention: Adaptive Speech Elaboration and Feedback for Speech Therapy  
Inventor: **Gerald C. Imaezue**  
US Patent App#: 19/043,393 (patent pending)

Invention: Multilingual AI-Agent for Language Therapy in Diverse Languages  
Inventor: **Gerald C. Imaezue**  
USF Tech ID: 25T029  
Provisional Patent#: 63/693,426 (patent pending)

Invention: Agent-Based Conversational Dialogue Simulator  
Inventors: **Gerald C. Imaezue**, \*Harikrishna Marampelly & \*Krishna V. Maram  
USF Tech ID: 25T193  
Provisional Patent#: 63/787,438 (patent pending)

Invention: Mirror Speech Entrainment for Speech Therapy  
Inventors: **Gerald C. Imaezue** & \*Celine Davis  
USF Tech ID: 25T198  
Provisional Patent#: 63/789,666

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## GRANTS

### ***Funded***

Funding Body: **Eunice Kennedy Shriver National Institute of Child Health & Human Development (NICHD)**  
Award: 5P2CHD101899-05– Center for Smart Use of Technology to Assess Real-world Outcomes (C-STAR)  
Project Title: Adaptive Recursive Self-feedback for Improving Speech Production in Patients with Chronic Aphasia  
PI: Gerald C. Imaezue  
Duration: May 2024 – April 2025  
Budget: \$37,000 (Funded)

Funding Body: **USF College of Behavioral and Community Sciences (CBCS)**  
Award: CBCS Internal Grant Program award  
Project Title: Spontaneous Speech Production with Recursive Self-feedback in Patients with Chronic Aphasia  
PI: Gerald C. Imaezue  
Duration: April 2024 – March 2025  
Budget: \$20,000 (Funded)

Funding Body: **The City University of New York Graduate Center**  
Award: Doctoral Student Research Grant  
Project Title: Recursive Self-feedback and Its Role in Spoken Language  
PI: Gerald C. Imaezue  
Duration: 2021 – 2023  
Budget: \$840 (Funded)

### ***New Submission/Resubmission***

Funding Body: **National Institute on Deafness and Other Communication Disorders (NIDCD)**  
Award: NIDCD R01—Research Opportunities for New Investigators Workforce Development  
Project Title: Optimizing Recursive Self-Feedback to Enhance Spoken Language Recovery in Cross-Linguistic Aphasia  
PI: Gerald C. Imaezue and W. Scott Burgin (Co-I)  
Duration: 2025 - 2030  
Budget: \$2,927,484 (Resubmission)

Funding Body:	<b>National Institute on Deafness and Other Communication Disorders (NIDCD)</b>
NOFO:	NIDCD R01—PAR-24-051 (Low Risk Clinical Trial Optional)
Project Title:	Large-Scale Online Recruitment and Treatment Procedure for Rehabilitating Patients with Aphasia
PIs:	Gerald C. Imaezue, Nori Jacoby, W. Scott Burgin, Mira Goral & Ofer Tchernichovski
Duration:	2025 - 2030
Budget:	\$3,739,673 (New submission)

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## SELECTED HONORS AND AWARDS

2024:	Pathways Program for Early-Career Scientists: American Speech-Language-Hearing Association (ASHA)
2023:	NIH–NIDCD Research Symposium in Clinical Aphasiology Fellowship
2022:	Brownstein Fellowship for Excellence in Dissertation Writing: Speech-Language-Hearing Sciences PhD Program, The Graduate Center CUNY
2021:	NIH–NIDCD Young Investigator Travel Award: Academy of Aphasia at the 59 <sup>th</sup> Annual Meeting of the Academy of Aphasia
2021:	NIH–NIDCD Saffran Student Scholar Award: Eleanor M. Saffran Center for Cognitive Neuroscience, Temple University
2018:	NIH–NIDCD Saffran Student Scholar Award: Eleanor M. Saffran Center for Cognitive Neuroscience, Temple University
2018:	Science Fellowship: The Graduate Center, City University of New York
2018:	Research Mentoring-Pair Travel Award (RMPTA), American Speech-Language-Hearing Association
2018:	NIH–NIDCD Research Symposium in Clinical Aphasiology Fellowship
2015:	Federal Government Scholarship: Federal Government of Nigeria
2015:	Best graduating student with distinction: Department of Special Education and Speech Pathology and Audiology graduate class (masters' degree)
2015:	University of Ibadan Scholar, University of Ibadan, Nigeria
2012:	Best graduating student and Departmental Prize: University of Ibadan, Nigeria

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## PROFESSIONAL MEMBERSHIP

2024 – Present:	Member, Academy of Neurologic Communication Disorders & Sciences (ANCDS)
2023 – Present:	Member, American Speech-Language-Hearing Association (ASHA)
2018 – Present:	Member, Academy of Aphasia

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## **PROFESSIONAL AND UNIVERSITY SERVICE**

### ***Ad hoc Journal Reviewer***

American Journal of Speech-Language Pathology

Aphasiology

Health Expectations

Journal of Speech, Language, and Hearing Research

Journal of Fluency Disorders

Langenbeck's Archives of Surgery

Scientific Reports

### ***Department of Communication Sciences and Disorders Committees***

2023 – Present: Member, SLP Graduate Program Committee, USF

2023 – Present: Member, PhD Committee, USF

### ***PhD Students***

1. David Ajayi; *Communication Sciences and Disorders*
2. Isra A. Alohal; *Communication Sciences and Disorders*
3. Celine Davis; *Communication Sciences and Disorders*

### ***Dissertation/Thesis Committee Member***

1. Marcy Edwards, MS Thesis; *Communication Sciences and Disorders*

### ***MS Graduate Students Advisor***

1. Micheal Greenberg; *Communication Sciences and Disorders*
2. Grant Oberle; *Communication Sciences and Disorders*
3. Sarah Parker; *Communication Sciences and Disorders*
4. Alisson Sirianni; *Communication Sciences and Disorders*
5. Arianna Smith; *Communication Sciences and Disorders*
6. Ashley Smith; *Communication Sciences and Disorders*
7. Olivia Wellman; *Communication Sciences and Disorders*
8. Madelyn White; *Communication Sciences and Disorders*
9. Sierra Youngblood; *Communication Sciences and Disorders*

### ***Mentored BARLab Members (Past and Current)***

1. David Ajayi; *Communication Sciences and Disorders*
2. Jael Azemard; *Communication Sciences and Disorders*
3. Rajesh Kumar Butta; *Computer Science and Engineering*
4. Celine Davis; *Communication Sciences and Disorders*
5. Krishna Veni Maram; *Computer Science and Engineering*
6. Harikrishna Marampelly; *Computer Science and Engineering*
7. Gianna Mineo; *Communication Sciences and Disorders*
8. Kathleen-Linnea Poindexter; *Molecular Biosciences*
9. Yernar Sadybekov; *Computer Science and Engineering*

10. Clarissa Salas; *Communication Sciences and Disorders*

**Service to Others**

- 2024 – Present: Member, ANCDs Diversity Writing Group
- 2019 – 2021: Student Member, Executive Committee, Speech-Language-Hearing Sciences program, The Graduate Center, City University of New York.
- 2018: Co-Founder, Inclusive Education, and IEP Center (IEIEPC)  
Lagos, Nigeria  
Website: <https://ieiepc.com/welcome/our-team/>  
Reported events in top Nigerian tabloids:  
<https://www.vanguardngr.com/2019/04/ieiepc-decries-absence-of-education-standard/>; <https://guardian.ng/tag/ieiepc/>
- 2014 – 2015: Team Lead, Inclusive City Project, National Youth Service Corps, Osun Nigeria  
Led a team that trained teachers in Osun State, Nigeria on early identification, accommodation, and remediation for students with special needs. We trained over 300 teachers and ascertained their learning.