**Buffett Undergraduate Research Fellowship Opportunity**

*Intonation and Pronunciation Practices for Improving Spanish Phonetic Production in Accelerated Elementary Courses*

**Faculty Mentor:** Wilmar Lopez-Barrios, Assistant Professor of Instruction, Weinberg College of Arts and Sciences

**Project Synopsis:** This project examines the development of pronunciation and intonation in elementary-level Spanish students at Northwestern University. The study evaluates whether a series of intonation activities, designed as part of the course curriculum, significantly contribute to improving students' Spanish phonetic production. Students will complete four practice activity packets throughout the Winter 2026 quarter. In each Pronunciation and Intonation practice packet, students will begin by mapping a communicative context to a specific utterance. They will then read a pronunciation tip and listen to four different versions of the same utterance, produced by native Spanish speakers from four distinct regions of the Hispanic world. Afterwards, students will record their own utterances and will have the opportunity to compare their intonation with the native speakers' recordings, fostering self-awareness and targeted improvement.

Those students who provide consent will allow us to conduct an acoustic analysis of their utterances, enabling us to investigate changes in their pronunciation during the implementation of these packets. The overall goal is to determine the effectiveness of these activities in the context of teaching Spanish as a second language and to provide empirical evidence on the extent to which intonation-focused practice improves students 'pronunciation. In addition, this research also aims to offer new insights for curriculum development and pedagogical practices in accelerated language courses. Students and collaborators will be exposed to a wide range of intonation patterns and specific phonetic features, allowing them to develop contrastive awareness and gain an understanding of the gradual variation that arises from both social and regional uses of the Spanish language.

**Project Term:** Summer and Academic Year 2026

**Project Location:** Hybrid, on-campus

**Job Description:**
Undergraduate research fellows will participate in the second and third stages of the project, focusing on processing, annotating, and analyzing audio files to study the pronunciation and intonation of Spanish learners. This includes:

1. Segmenting and annotating audio recordings produced by Spanish learners during Winter 2026.
2. Applying acoustic analysis using Praat and specific statistical analysis using R.
3. Formulating and presenting preliminary observations.
4. Participating in drafting and presenting academic results.

This project will be highly beneficial for undergraduate research fellows, helping them develop skills in acoustic and statistical analysis, as well as in applying rigorous methodologies for conducting empirical research. These competencies will enable students to apply their knowledge in future studies related to phonetics, prosody, second language acquisition, and Spanish teaching. Student contributions will be acknowledged in presentations and publications derived from the project, and fellows may also actively participate in writing research articles as co-authors, depending on the extent of their contribution to the manuscript.

Applicants with intermediate-high or advanced-low Spanish skills are preferred.

**Time Commitment:**

Each fellow is expected to work approximately 240 hours in total throughout the project. Hours are flexible, but fellows should maintain consistent work during summer and the academic year (2026–2027).

- Summer 2026: About 120 hours (approximately 11 hours per week), mainly dedicated to initial segmentation and organization of part of the corpus.
- Academic Year: About 120 hours (approximately 4 hours per week per quarter), focused on statistical data analysis, preparing individual and group reports with preliminary findings, and collaborating on presentations and academic publications derived from the project.

**Number of available positions:** Two