The Department of Communication Sciences and Disorders is pleased to offer the following research project for the summer of 2016. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and, if possible, develop a timetable for the twelve-week research period.

PROJECT TITLE: Establishing similarities and differences in the grammatical profile of Jamaican Creole and English-speaking preschoolers

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Project Description

Speech or language impairments impact approximately 10% of children (Hoffman et al., ’14). Clinical standards for identifying children with these impairments in the US are largely based on the characteristics of monolingual English speakers. This is a severe problem for children from culturally and linguistically diverse (CLD) backgrounds for two reasons: 1) clinicians may misdiagnose children of normal ability as disordered, and 2) clinicians may miss indicators of difficulty they are not expecting. In fact, the evidence shows that both happen. Compared to English-speaking peers, CLD children are: 1) over-represented in remedial classrooms in urban settings (Sullivan, ’11) and 2) underserved for speech and language services (Morgan et al., ’15). In other words, clinicians and teachers are forced to make decisions about CLD children without scientifically valid criteria or sufficient resources to guide practice (Verdon et al., ’15). The lack of appropriate standards for such populations is a significant contributor to educational and healthcare disparities in the US. Reducing these disparities requires a greater understanding of developmental relationships between English and the home language/dialect. One model of bilingual development, the popular Interactional Dual Systems Model (IDSM; Paradis, ’01), has been shown to account for developmental data in French/English- and Spanish/English-speakers, among others. Further, investigators using this model have shown that it predicts phonetic, lexical and grammatical features that impact diagnostic accuracy and treatment (Paradis et al., ‘11).

The purpose of this research project is to test the predictions of the IDSM within a sample of CLD children who are speakers of Jamaican Creole, an English-based creole, and Standard English. This population of speakers represents the third largest Caribbean-born immigrant group in the US, yet there is little available clinically-applicable information about their speech and language profiles. We are interested in
documenting similarities and differences in 3- to 6-year olds grammatical skills in prompted (single-word) and spontaneous language (free play and narrative) tasks in the context of a well-known variable, age. Our hypothesis is that similarities and differences should exist between JC and SE grammatical features and that age is positively correlated with different grammatical features at the prompted and spontaneous levels. These data will provide preliminary evidence of development between English and the home language useful in informing US clinical standards. The following specific aims will be addressed:

Research Questions
1. Determine whether JC and SE grammatical development is consistent with the IDSM. We will identify where linguistic similarities and differences lie and establish how these impact the probability of misdiagnosis within this population.
2. Determine whether the variable age is related to similarities and differences for JC and SE grammatical characteristics at the prompted and spontaneous levels.

Participants: The data utilized in this project were collected in Jamaica from a sample of 70+ 3- to 6- year old Jamaican Creole- and English-speaking preschoolers who attended similar schools in urban settings in Kingston, Jamaica. We have data on grammatical features across tasks, in addition to information on overall development based on parent and teacher report and on direct child evaluations of nonverbal cognition, oral motor, emergent literacy, pragmatics, and receptive language.

Project Elements for WISE scholar:
- Complete IRB procedures to be added to the already approved study protocol (IRB #2013-6345)
- Complete training sessions on organization, scoring, transcription, interpretation, and entry for data collection
- Complete training sessions on dialect neutral data analysis techniques (e.g., Index of Productive Syntax [IPSyn, Scarborough, 1990]; morphemes used), Complete an introduction to cultural and linguistic diversity using the Multilingual Children’s Speech Website, http://www.csu.edu.au/research/multilingual-speech, as well as training on grammar analysis in diverse populations, http://www.leadersproject.org/ceu-courses/grammar-fundamentals-for-apluralistic-society/
- Complete training sessions using the resource, Writing Jamaican the Jamaican Way (Jamaican Language Unit, 2009) on the Jamaican Creole language, including orthography and oral language. This training session will facilitate data analysis, organization, scoring, transcription, interpretation, and entry for data collection
  - Collaborate with the Jamaican Language Unit as part of training program
- Organize and enter data from parent, teacher, and speech-language pathologists’ measures
- Organize and enter all child data on demographic measures
- For each language (i.e., Standard English and Jamaican Creole)
  - Transcribe samples from video-recordings for prompted and spontaneous tasks
  - Document grammatical features
  - Document percentage of use of each feature
  - Calculate total number of morphemes used
- Analyze structure/complexity based on a corpus of 50+ utterances (complete and intelligible) collected from each participant. The Index of Productive Syntax (Scarborough, 1990) will be used to facilitate this analysis
  - Complete preliminary interpretations regarding similarities and differences
    - This task will be completed in consultation with a biostatistician.
  - Support manuscript and abstract preparations (e.g., ASHA 2017 Convention)

Background Characteristics of WISE scholar:
- Communication Sciences and Disorders background
- CITI training completed (can be completed during the first few weeks of the program)