

# CSD Students Use LENA to Analyze Language Sample Data Across Diverse Populations

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## Undergraduate Engagement in Research



Junior-level students in Communication Sciences & Disorders (CSD) at Valdosta State University develop knowledge and skills in child language assessment research.

### Aim

Foster student growth in the following four areas of research planning and implementation:

### IRB / Ethical Conduct in Research

- In-class discussion and overview of consent forms;
- Completion of the CITI Course on the *Protection of Human Research Subjects*.

### Literature Review Process

- Library instruction on locating research articles, following APA citation rules, and writing article annotations;
- Student researchers located relevant research-based articles and submitted article annotations.

### Data Collection

- Recruiting families with children between 24 & 48 months;
- Collecting LENA samples of parent-child dyads engaged in typical daily routines for at least 5 hours (average sample = 7.5 hours).

### Data Analysis

Training and practice with computer-generated language sample analysis using LENA measures and traditional language sample measures, including Mean Length of Utterance (MLU), Type/Token Ratio (TTR), and Pragmatic Functions.

## Preparing Tomorrow's Scholars: Graduate/Doctoral Research



Master's & doctoral level students at Florida State University participate in intensive research activity to gain competence in scientific inquiry.

### Aim

Use the LENA technology to engage students in research at all academic levels.

### Students

Master's level CSD students fulfill a requirement of 45 hours of research activity. Doctoral students take on leadership roles by exploring their intellectual curiosities through innovative use of the FSU child language lab's LENA database.

### Activities

Teams forge relationships with childcare centers within the community, elicit samples and share LENA output with families. Students work in small teams to transcribe samples, conduct SALT coding and analysis, code at the discourse level (e.g. Pragmatic language) and code at the 5 minute level to identify language, activity, and communication partners.

### Desired outcomes

- Students practice data collection & data management.
- Promote active problem-solving and scientific inquiry through engagement in research.
- Student products include poster presentations, theses, and dissertations.

## Building Capacity through Community-Engaged Research



CSD students involved in a personnel preparation project at California State University, East Bay engage in service oriented reflective learning.

### Aim

- Participate in organized service oriented research that meets the needs of the local community;
- Advance current knowledge of language use patterns in culturally and linguistically diverse (CLD) families.

### Students

This personnel preparation project focuses on recruiting, retaining and mentoring minority students in speech-language pathology.

### Activities

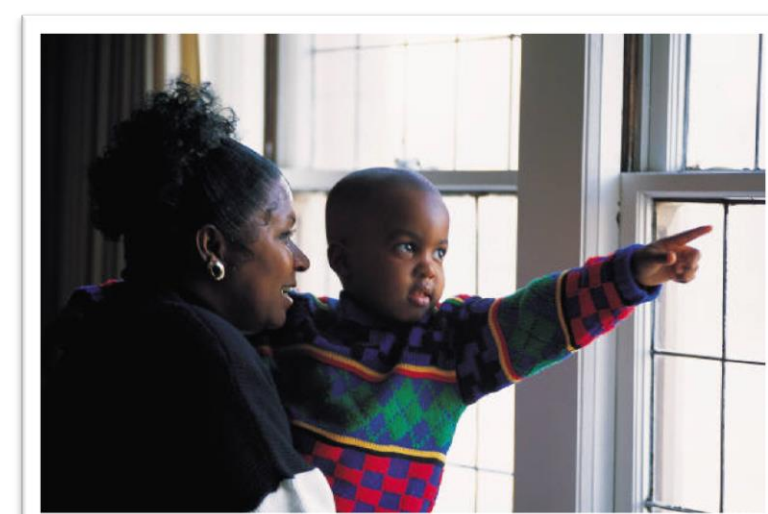
In collaboration with local childcare agencies, bilingual families (English-Spanish; English-Mandarin; English-Hindi) are being recruited to participate in the project. Students complete manual data coding (transcription and conversational analysis) to identify patterns of language use in home and preschool settings.

### Desired Outcomes

- To expand current understanding of language use in minority bilingual families.
- Develop clinician-scholars with an interest and expertise in serving the needs of CLD families.

## Research to Address Cultural and Linguistic Diversity

Families across different cultures share many commonalities in regard to caregiving. However, it is important to recognize culture and its influence on parenting styles, language choice and use, social roles, communication expectations, and the types of routines families engage in throughout the day.



Language sample collection & analysis within the context of family routines helps us better understand:

- Parenting style in terms of engagement with the child
- Social roles within the family
- Expectations of child communication (form, function, & rate)
- How bilingual children and adults mix or switch languages
- The family's naturally occurring routines, which may be culture specific.



Projects at CSU-East Bay, FSU, & VSU are working to ensure that African-American, Chinese, Hispanic, Indian, and Latino families are represented in LENA based language development research.