

**Human Development Institute
Fund For Excellence**

Final Project Report/Summary

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(Note: The initial Primary Investigator (PI) on this grant was Dr. Dwight Irvin, who relocated for a new appointment at Kansas University, and Joanne Rojas became PI)

Title of Project: Understanding Language Environments in Community Settings in Families of Children with Autism Spectrum Disorder

Project Start date: April 5, 2016

Project End date: January 18, 2017

Total FFE Project Budget: \$9,978

Brief summary of the goals of this project

The primary goal of this project was to assess language environments in community settings among families of children with ASD ages 3-6 years ($n=10$) using precise, objective measures: the Language ENVironmental Analysis (LENA) system™ and a Global Positioning System (GPS) (i.e., Qstarz™).

Brief summary of the outcomes/achievements resulting from this project

The final sample was expanded in order to facilitate recruitment within a reasonable timeframe. The final sample ($N=10$) included 5 children with a diagnosis of ASD, 5 children without any diagnosis, and the age range was expanded to include children up to the age of 8 years old. The original intent of the research remains the same—to understand the community language environments of children with ASD. This line of research is innovative, and we believed that a symmetric sample including equal numbers of children with and without this diagnosis allowed us a comparison sample within our own research.

We successfully collected data from 10 families who had a child wear the LENA and the QStarz device for an entire weekend. That data has been uploaded and is currently being cleaned and synchronized for further analysis. Once analyses are complete, we will prepare a manuscript for submission to a peer-reviewed journal. Another important outcome of this research are the research protocols developed that can be replicated with other families. Families and children were able to successfully work with the technology independently after a brief introduction during the initial consent meeting. Technical problems were minimal.

Did any products (e.g., materials, manuscripts, technology) result from this project?

Our initial findings on a partial sample of this data were presented at a national conference as a research poster.

Rojas, J. P., Bard, A. L. E., Luo, Y., Irvin, D. W., Little, L., & Rous, B. (October, 2016). Using technology to understand language interactions in the community for children with autism spectrum disorder. Division for Early Childhood Conference, Louisville, KY.

Has, or will, additional funding (e.g., external grants) be sought to sustain the project?

An additional related research project proposal using the LENA device has been submitted to the Caplan Foundation for 50K, and the use of this equipment in this project was used as evidence of experience using this equipment to collect data from young children. In addition, once our initial analyses are completed on the full sample, this data will be used as pilot data for a larger line of research and external funding will be pursued.

Has or will the project be continuing beyond the period of Fund For Excellence funding?

Analysis of the data and manuscript preparation are ongoing.