

## Dynamic Assessment of Narratives Among Navajo Preschoolers

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### Project Description

Navajo Head Start children are more likely to be referred for language assessments and be over-identified with language disorders at higher rates (70%) than the main stream children (7%). There are no measures available to evaluate Navajo Head Start children that are valid for the population; and therefore, there is an urgent need for developing alternative assessments that are valid in this context with Navajo children. The purpose of this study is to examine whether a dynamic assessment measure, the Predictive Early Assessment of Reading and Language (PEARL) discriminates accurately Navajo children with language differences from those with language disorders.

### Research Questions

- Does the PEARL accurately (> 85%) identify Navajo Head Start children as ‘at-risk’ for language impairment or as typically developing using the recommended cut-score?
- Which measures (pretest score, change score, and responsiveness scores) are the best discriminators of Navajo Head Start children with and without language disorders?
- Using the PEARL, which measures (pretest scores, change scores, responsiveness scores, and MLU C - Units) are the best predictors of the performance on the posttest scores of Navajo children in each language ability group (TD and ‘at risk’ of LI)?

### Sample

The study will be conducted on the Eastern Navajo Reservation, which will involve 31 Navajo Head Start Centers. The proposed sample will include 90 Navajo Head Start children, ages 4 to 5 years-old, 45 children with language disorders (LD) and 45 children with typically development (TD).

### Methods

#### *Data collection measures and procedures*

**Parent questionnaire.** The parent/guardian questionnaire will consist of eighteen questions followed by sub-questions as follow up. The parent/guardian questionnaire will be used to identify the child as at risk of LD using probed questions such as “In the area of language development, what are you most concern about for your child?”

**Teacher questionnaire.** The teacher questionnaire will consist of eight core questions followed by several sub-questions formatted using check boxes. Teachers will be asked to report specifically about the child’s language skills. Teachers will either check the box “No concerns”, “Some concerns” or “Very concerned”.

**Hearing Screening.** A hearing screening at 25 dB HL at 500, 1000, 2000 and 4000 Hz will be administered bilaterally to rule out hearing issues that may be the foundation of language concerns.

**Language sample.** A spoken narrative using the wordless picture storybook, *Frog where are you?* (Mayer, 1969) will be used to elicit language samples from each child as part of the criteria to categorize participants as for LI or as TD with the language sample audio recorded. The RA will ask the child to retell the story using the wordless storybook. A trained RA will segment the language samples into MLUC-units which is defined as one independent clause and any dependent clauses (Eisenberg, Fersko & Lundgun, 2001; Leadholm & Miller, 1992; Loeb, et al., 2000; Miller & Chapman, 1981; Rice, Rice & Remond, 2000; Rollins, 1995; Rollins, Snow & Willett, 1996).

### **Clinical Evaluation of Language Fundamental – Preschool, Second Edition (CELF – Preschool**

2). CELF – Preschool 2 (Wiig, Secord, & Semel, 2004) will be used as a clinical measure to identify children as having LD in ages 3 – 6 years, and it consists of three Core Language subtests: sentence structure, word structure, and expressive vocabulary. CELF - Preschool 2 (Wiig, Secord, & Semel, 2004) is an individually administered test and measures expressive and receptive language skills in preschool-aged children. The administration time for the CELF – Preschool 2 takes between 15 to 20 minutes per participant.

**Predictive Early Assessment of Reading and Language (PEARL).** The PEARL will be administered individually as a dynamic assessment of narratives that measures the child's modifiability in language production and comprehension (Petersen & Spencer, 2014). The PEARL will take about 20 minutes depending on the student's performance and will be completed in one visit. The components of the PEARL consist of a pretest and posttest that are both measured by Story Grammar, Language Complexity and Episode; and four teaching phases will be completed between both the pretest and posttest phase, which is measured by the Responsiveness Scale, a 5-likert that consist of Prompts, Confidence, Disruptions, Rate and Learning. During the pretest and posttest phase, the research assistant (RA) will ask the child to retell the story without being prompted by the examiner in order to gather pretest and posttest scores. Pretest and posttest scores will be based on the story grammar (character, setting, problem, emotion, plan, attempt, consequences, ending and ending emotions), language complexity and episode (Appendix D). Students may receive a score as high as 31 points measuring gained scores between pretest and posttest. Following the pretest phase, the RA will administer four teaching phases, and a post-test.

### **Progress Update**

The study was approved by the Arizona State University Institutional Review Board, Arizona State University – Cultural Institutional Review Board and the Navajo Nation Human Research Review Board. Data will be collected by certified research assistances on the Navajo Reservation.

Specific issues that we will be able to address in December 2015 at the CCPRC Annual Meeting will include Navajo-influenced English and cultural differences which affect performance on standardized assessments.

### **Implications for policy/practice**

Identifying a nonbiased assessment tool and procedure among Navajo Head Start children can better inform Speech-Language Pathologists, Educational Policy makers and teachers to improve the quality of assessment practices among Navajo children to reduce over-identification of children with language differences as presenting with LD.

### **Implications for research**

There are limited research studies based on Navajo children in the area of speech and language; specifically, there are no research studies that investigate how Navajo children preform on dynamic assessments in any language area appropriate for preschool children. Although the PEARL focuses on cultural characteristics form the mainstream children, narratives are more culturally and linguistically appropriate than other language measures for Navajo children. Therefore this study will allow us to provide enriched data of how Navajo children perform on the PEARL, whether they need different cut-off scores or predictors. These results will constitute a contribution to the research field.

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