**BACKGROUND**

**Rationale**
- How do we respond to the United State’s most important public education problem, the “achievement gap”; the well-documented observation that children from low socio-economic status (SES) families perform less well academically than children from middle- and high SES families (Loeb, 2007).
- Compared with peers from more affluent families, children living in poverty hear approximately 30 million fewer words by age 3 (Hart & Risley, 1994).
- Intervention programs such as Thirty Million Words or Providence Speaks focus primarily on increasing quantity of home language input.
- But what about quality of home language input?
  - Quality is also related to SES (Gillernson & Richards, 2009)
  - Quality also predicts a child’s later vocabulary skills (Rowe, 2012)
  - Increasing quantity of language through intervention measures doesn’t necessarily increase language quality (Trask, 2012)

**Research Questions**
1. Is quantity or quality a better predictor of vocabulary size, and does this relationship differ as a function of maternal education level?
2. Do measures of linguistic quality differ across levels of maternal education?

**METHODS**

**Participants**
- 52 children who participated in a larger longitudinal study of language development.
- Monolingual English speakers and their primary caregivers.
- Aged between 28 and 38 months (mean = 32)
- Normal hearing and typical speech and language development.

Table 1. Demographic information for participants (standard deviations in parentheses)

<table>
<thead>
<tr>
<th>Maternal Education Level</th>
<th>Males/ Females</th>
<th>AAE Speakers</th>
<th>Mean Age in months</th>
<th>Mean EVT-2 Standard Score</th>
<th>Mean PPVT-2 Standard Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>7/7</td>
<td>7</td>
<td>33 (4)</td>
<td>109 (19)</td>
<td>102 (21)</td>
</tr>
<tr>
<td>Middle</td>
<td>10/12</td>
<td>3</td>
<td>22 (1)</td>
<td>102 (20)</td>
<td>105 (22)</td>
</tr>
<tr>
<td>High</td>
<td>9/7</td>
<td>0</td>
<td>33 (3)</td>
<td>122 (18)</td>
<td>119 (19)</td>
</tr>
</tbody>
</table>

1-step scale for maternal education level:
- Low = less than high school degree, G.E.D., high school degree
- Middle = some college, associate's degree, trade school degree
- High = college or graduate degree

**MEASURES**

**Question 1**
- Independent variables: Quantitative and qualitative measures of home language input, maternal education level.
- Dependent variables: Quantitative and qualitative measures of home language input.
- Stepwise linear regression analysis.
- Significant differences as a function of maternal education level in the percent of decontextualized speech.

**Question 2**
- Independent variables: Quantitative and qualitative measures of home language input.
- Dependent variables: Quantitative and qualitative measures of home language input.
- ANOVA.
- The only significant predictor of both expressive and receptive vocabulary size was the percent of decontextualized speech.

**RESULTS**

**Question 1**
- The only significant predictor of both expressive and receptive vocabulary size was the percent of decontextualized speech.

**Question 2**
- Significant differences as a function of maternal education level in one quantitative measure and three qualitative measures.

**DISCUSSION**

**Question 1**
- Across all levels of maternal education, the percentage of decontextualized language that a child heard was a significant predictor of their expressive and receptive vocabulary size.

**Question 2**
- Children from high maternal-education-level families heard more adult words, and received language input of higher quality compared to their peers from low maternal-education-level families.

**ACKNOWLEDGEMENTS**

This research was supported by NICHD Grant R01-02932 to Jan Edwards, Mary E. Beckman, and Benjamin Munson and by NICHD Grant P30-HD03352 to the Waisman Center.