An alternative method for measuring lexical comprehension is looking-while-listening. It is non-social, has limited task demands, and requires the child to differentiate the correct referent from only one other option.

Our research question was:
In a looking-while-listening task, do young children with ASD understand words their parents had reported them not to know?

We predicted that children’s understanding of ‘unknown’ words would be evident in the looking-while-listening task.

### RESULTS

Children spent significantly more time looking at the target image after it was named, \( p = .04 \).

**Baseline:**
\[ M = .50, \ SD = .10 \]

**Test Window:**
\[ M = .56, \ SD = .12 \]

In a looking-while-listening task, children with ASD understood words that their parents had reported them not to know.

This is an important finding because it shows that looking-while-listening can reveal lexical knowledge in young children with ASD that may otherwise have been overlooked.

Additional work is needed to investigate the alignment between different measures of early comprehension.

Our goal should be not to identify the ‘best’ measure of comprehension, but to learn what each measure tells us and what it does not.

### METHODS

- Participants were 24 children who had received a DSM-IV diagnosis of ASD from a psychologist as part of a broader research study. An additional 8 children were excluded because they were reported to know the majority of the target words.
- Parents completed the MacArthur Communicative Development Inventory, Words and Gestures (CDI). Only trials in which the target word had been reported as ‘unknown’ were analyzed.

### Participant Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronological age in months</td>
<td>30 (3)</td>
<td>24 – 36</td>
</tr>
<tr>
<td>Bayley-III Composite Score</td>
<td>77 (14)</td>
<td>55 – 100</td>
</tr>
<tr>
<td>Autism Severity Score</td>
<td>8 (2)</td>
<td>5 – 10</td>
</tr>
<tr>
<td>Number of words understood</td>
<td>96 (70)</td>
<td>0 – 301</td>
</tr>
<tr>
<td>Number of words produced</td>
<td>17 (21)</td>
<td>0 – 72</td>
</tr>
</tbody>
</table>

*Note. Autism severity was measured by calibrated autism severity scores on the Autism Diagnostic Observation Schedule. 2nd Edition. Vocabulary was measured by the CDI.*