Introducing a Nonword Repetition Task for Vietnamese-Speaking Children

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ABSTRACT

Nonword repetition (NWR) tasks have been created in many languages to identify developmental language disorders. However, there are only a few NWR tasks available for Asian Languages (e.g., Stokes et al., 2006). This presentation describes the development and validation of a Vietnamese NWR task. We introduce a set of NWR stimuli based on phonological properties of the language and describe a validation study with a sample of typically developing bilingual children.

BACKGROUND

• NWR tasks have been used to identify language impairment (Coady & Evans, 2008).
• NWR tasks appear less affected by prior linguistic experience than other language assessment tasks (Dollaghan & Campbell, 1998).
• Previous studies on NWR validation have shown effects of age and length (Ebert et al., 2008).
• Different scoring systems can highlight distinct error types reflective of a given language (Sundstrom et al., 2014).

METHODS

• Children were tested individually by a research assistant (RA) fluent in Vietnamese in a quiet area of their school.
• Stimuli were administered using audio files uploaded to an iPad.
• RA and child listened to stimuli through joint headphones.
• NWR task consisted of 2 practice items, with feedback, followed by 20 task items.
• Children heard each item one time and were instructed to repeat each item immediately after hearing it.
• Child responses were audio recorded for later transcription and scoring.

RESULTS

Descriptive statistics by word length and scoring system.

<table>
<thead>
<tr>
<th>Length</th>
<th>1 Syllable</th>
<th>2 Syllables</th>
<th>3 Syllables</th>
<th>4 Syllables</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>PPC*</td>
<td>.92</td>
<td>.06</td>
<td>.90</td>
<td>.06</td>
<td>.86</td>
</tr>
<tr>
<td>PCC*</td>
<td>.92</td>
<td>.10</td>
<td>.89</td>
<td>.09</td>
<td>.85</td>
</tr>
<tr>
<td>PVC*</td>
<td>.89</td>
<td>.14</td>
<td>.84</td>
<td>.13</td>
<td>.79</td>
</tr>
<tr>
<td>PTC</td>
<td>.96</td>
<td>.11</td>
<td>.98</td>
<td>.05</td>
<td>.95</td>
</tr>
<tr>
<td>PPCnO*T</td>
<td>.91</td>
<td>.07</td>
<td>.87</td>
<td>.08</td>
<td>.83</td>
</tr>
</tbody>
</table>

Note. Pairwise comparisons were conducted using repeated measures MANOVAs.

SCORING

• Each phoneme (C, V, tone) scored for accuracy.
• As per Dollaghan & Campbell, 1998, substitutions/omissions were errors; additions/slight distortions were not.
• Five Scoring Systems:
  - Proportion of phonemes correct (PPC)
  - Proportion of consonants correct (PCC)
  - Proportion of vowels correct (PVC)
  - Proportion of tones correct (PTC)
  - Proportion of consonants and vowels correct (PPCnO*T)

<table>
<thead>
<tr>
<th>Sample Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>B洎 /bap/</td>
</tr>
<tr>
<td>Đếng му /đɛŋ/</td>
</tr>
<tr>
<td>Gốp cớm xẻ /gop kxr мэхэ/</td>
</tr>
<tr>
<td>Ghìm bù phó ke /gi’mь bу phô ke/</td>
</tr>
</tbody>
</table>

PAIRWISE CORRELATIONS BETWEEN CHRONOLOGICAL AGE AND TOTAL SCORES.

<table>
<thead>
<tr>
<th>Age</th>
<th>PPC_Total</th>
<th>PCC_Total</th>
<th>PVC_Total</th>
<th>PTC_Total</th>
<th>PPCnOt_Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>28*</td>
<td>.21</td>
<td>.27*</td>
<td>.16</td>
<td>.27*</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p<.05

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REFERENCES