Effects of Presentation Modality on Language Comprehension of School-Age Children

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BACKGROUND

Introduction
- Language comprehension is an internal process
- Not easy to observe directly
- Critical to school success
- Necessary for learning

METHODS

Themes from Literature Review
- Working Memory: storing & retrieving information and manipulating the information for a specific task
- If processing is difficult, then mental resources are allocated to processing, leaving no capacity for storage and manipulation of information

RESULTS

Question #1
- Students identified as Low SES (based on qualification for free or reduced lunch) perform more poorly than their peers?

• Language comprehension is an internal process
• Individual assessment can provide evidence for designing testing accommodations.

Descriptive Statistics of Modality Subtest by Low SES

<table>
<thead>
<tr>
<th>Subtest</th>
<th>Mean</th>
<th>S. D.</th>
<th>Host</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>3.143</td>
<td>3.620</td>
<td>1.864</td>
<td>.20</td>
</tr>
<tr>
<td>Reading</td>
<td>3.620</td>
<td>4.257</td>
<td>1.355</td>
<td>.174</td>
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</tbody>
</table>

Question #2
- Do students identified as having special education needs perform differently than their typically developing peers?

• Children with special needs were only different on the Listening and Listening + Reading subtests. Why not on Reading? Possible limitations--

Theme: Inference Making Ability and its Relation to Comprehension Failure in Young Children

Question #3
- Do students identified as Low SES (based on qualification for free or reduced lunch) perform more poorly than their peers?

<table>
<thead>
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<th>Host</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.004</td>
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<td>Reading</td>
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<td>4.056</td>
<td>1.492</td>
<td>.064</td>
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</table>

Question #4
- Do students identified as having special education needs perform differently than their typically developing peers?

<table>
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<th>Host</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.433</td>
<td>.026</td>
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<tr>
<td>Reading</td>
<td>13.25</td>
<td>3.114</td>
<td>2.370</td>
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</tr>
</tbody>
</table>

CONCLUSIONS

Clinical Implications
- The Y-NM task should provide a tool for assessing comprehension across modalities.
- Individual assessment can provide evidence for designing testing accommodations.

Limitations
- Classroom setting
- Interruptions & distractions
- Looking on another’s paper
- Date collected
- Included history of special needs
- ESL = articulation or language? LD = what area?
- School and parent report used to classify students
- Potential order effect not controlled by counterbalancing

Future Research Needs
- Testing of children with special needs
- Investigate classrooms as well as individual testing
- The test, post-test assessment after intervention
- Longitudinal study
- Further investigation of comprehension for students with low SES.

Summary
- Comprehension is a modal, verbal & inferential.
- It is assessed through reading & listening, and influence of input demands is not always recognized.
- The study provides evidence that modality influences change based on grade level--reading comprehension exceeded listening comprehension by 6th grade.
- The study provides new evidence of poverty, along with special needs, as risk factors for academic language difficulties.

REFERENCES


