The Effect of Individualized Font Formats on Reading Speed and Comprehension for Students in Grades 3-5

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The Virtual Readability Lab (VRL) Test

Font manipulation:
- Students read passages sets across 8 fonts:
  - Arial
  - Times
  - Poppins
  - Roboton
  - Open Sans
  - Source Serif Pro
  - Cat
  - Memewether

Spacing manipulation:
- In their best
  - Narrow
  - Normal
  - Wide

Results

- Reading speed increases are significant.
  - Comprehension is stable, suggesting that children are not trading it for speed.

Results (continued)

- Methods used resulted in means that are in-line with similar reported child reading speeds.
- Max WPM rules contained some high values.
- Children are much more variable than adults in terms of reading speed.
- Follow-up work with confirmatory measures of reading speed is needed.

Discussion

- Our methods for adults may translate to children, however more research will be needed to understand this effect and stability over time.

Research Questions

- Do format readability gains seen in adults generalize to children?
- Are methods used with adult populations appropriate for use with children?

Procedure

- 60 students participated in six 3rd-5th grade classrooms.
- Grade-leveled passages were utilized into the VRL readability tests (above) was taken in-classroom.
  - The test was administered through our online portal.
  - See screenshots above.
- Students and teachers completed exit feedback surveys. Secondary test data was collected from the school district.

Fixed Effect

<table>
<thead>
<tr>
<th>Speed (WPM): Font Fit</th>
<th>Coeff.</th>
<th>S.E.</th>
<th>T-ratio</th>
<th>d.f.</th>
<th>p-value</th>
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<tr>
<td>Speed (WPM): Font Clash</td>
<td>2.19</td>
<td>.996</td>
<td>2.20</td>
<td>29</td>
<td>.036</td>
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<tr>
<td>VRL Comp. %</td>
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NWEA MAP RIT Score

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<td></td>
<td>.01</td>
<td>.01</td>
<td>9.97</td>
<td>29</td>
<td>&lt;.001</td>
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