Dyslexia Specific Font: A Promised Solution but is it Effective?

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Background

Although dyslexia is a specific learning disability which contributes to a difficulty in word reading and is often due to a phonological deficit, many have believed that it was the result of a visual impairment. Educators and parents alike have been looking for a quick fix for their students with dyslexia. The visual theory of dyslexia has seemingly brought about accommodations to eliminate the effects of the disability. One such quick fix has been the development of a dyslexia specific font.

Purpose

The purpose of this review was to determine if a dyslexia specific font benefits individuals with dyslexia.

Research Questions

Research Question 1
Is a dyslexia specific font an effective accommodation for individuals with dyslexia?

Research Question 2
What features of a dyslexia specific font make them different from other fonts?

Research Question 3
Why might a dyslexia specific font matter?

Methods

The study was accomplished by searching three databases using the terms dyslexia, font, and later adding spacing to locate relevant studies for this later review.

Studies were limited to only those published in peer-reviewed journals. Search criteria did not include date, but all relevant studies were post 2000. The search produced a total of 154 publications of which 33 were flagged for further inspection. 16 of these studies met the search criteria.

Results

Dyslexia Specific Font Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Font Characteristics</th>
<th>Age</th>
<th>Grade</th>
<th>Country of Origin</th>
<th>Language</th>
<th>Sample Size</th>
<th>Outcomes</th>
<th>Accuracy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doreen, J.J. &amp; Diliberto, J.A. (2017)</td>
<td>OpenDyslexic</td>
<td>16-12</td>
<td>Grade 4</td>
<td>United Kingdom/ English</td>
<td>Dyslexia: study control group</td>
<td>n = 215</td>
<td>12.2% higher for OpenDyslexic than TNR</td>
<td></td>
</tr>
<tr>
<td>Gallanto, S. et al. (2000)</td>
<td>OpenDyslexic</td>
<td>12-14</td>
<td>Italy/ Italian</td>
<td>Dyslexia: Control</td>
<td>n = 64</td>
<td>No difference in font reduced with letter spacing increase with word spacing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perea, M., Panadero, V., Moret (2011)</td>
<td>OpenDyslexic</td>
<td>6-8</td>
<td>Spain/ Spanish</td>
<td>Reading matched control</td>
<td>n = 20</td>
<td>Faster errors rates unchanged (1-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>van der Aalst et al. (2014)</td>
<td>OpenDyslexic</td>
<td>7-14</td>
<td>Grade 6-10</td>
<td>Dyslexia only</td>
<td>n = 106 (2)</td>
<td>Decreased rate for faster Dyslexia (12.8% higher)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>van der Aalst et al. (2016)</td>
<td>OpenDyslexic</td>
<td>14-17</td>
<td>Grade 9-10</td>
<td>Dyslexia: group</td>
<td>n = 20</td>
<td>Greater accuracy for both; greater accuracy variance for dyslexic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>van der Aalst et al. (2017)</td>
<td>OpenDyslexic</td>
<td>10-16</td>
<td>United Kingdom/ English</td>
<td>Dyslexia: Control</td>
<td>n = 12</td>
<td>No difference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ziegler, J.C. (2012)</td>
<td>EasyReadingTM &amp; TNR</td>
<td>12-18</td>
<td>Grade 1-11</td>
<td>Dyslexia: group</td>
<td>n = 15 (2)</td>
<td>Students with SLD reading matched control group</td>
<td>n = 20</td>
<td>Increased reading speed (1-6)</td>
</tr>
<tr>
<td>French et al. (2013)</td>
<td>EasyReadingTM &amp; TNR</td>
<td>4 (1)</td>
<td>Grade 1</td>
<td>Dyslexia only</td>
<td>n = 14 (2)</td>
<td>No difference when within word and word spacing was added to Arial font</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duranovic et al. (2018)</td>
<td>EasyReadingTM &amp; TNR</td>
<td>16-18</td>
<td>Grade 12</td>
<td>Dyslexia: group</td>
<td>n = 2 (1)</td>
<td>Less errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachmann &amp; Mengheri (2018)</td>
<td>EasyReadingTM &amp; TNR</td>
<td>12</td>
<td>Grade 8</td>
<td>Dyslexia: control group</td>
<td>n = 9.71</td>
<td>Fewer errors</td>
<td></td>
<td></td>
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</tbody>
</table>

Conclusions and Implications

• There is not evidence that proves that a dyslexia specific font is effective for individuals with dyslexia.

• When spacing is added, dyslexia specific font resembles other existing fonts.

• Although added spacing is beneficial for individuals who are first learning to read, added spacing is actually disadvantageous to the typical reader with more experience with text.

• This matters because both parents and schools have limited budgets and need accommodations and materials that are effective and beneficial for individuals with dyslexia.

References


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