Detection of literacy problems in adult second language learners

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DETECTION OF LITERACY PROBLEMS IN ADULT SECOND LANGUAGE LEARNERS OF DUTCH

BACKGROUND

- CVO Antwerp \(\rightarrow\) education for adults
- Dutch as a second language (DSL)
- Some of the second language learners exhibit literacy problems
  \(\rightarrow\) Dyslexia?
  \(\rightarrow\) Due to poor oral proficiency in Dutch?

Need for screening tools for dyslexia that can be used in education for adults

METHOD

- Word reading test: DMT (Verhoeven, 1995)

“Dyslexia is a disorder characterized by a severe and persistent problem with accurate and/or fluent reading and/or spelling at the word level”

(Foundation of Dyslexia from The Netherlands, SDN 2008)

- Testing by DSL-teachers (after thorough training)
- Testing videotaped
- Scoring by a speech-language therapist

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Expeditieentrum van Lessius

CV(C)
CCVC/ CCVC
Multi-
syllabic
words

1'
1'
1'
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Participants
- 88 adult DSL-learners
- Same instructional level for Dutch (CEFR: level B1)
- Different origins (37)/mother tongues (30)
- Often less socioeconomic power

METHOD

- Design
  - Dependent variable
    » Total score DMT (# words read - # errors; for the 3 reading levels)
  - Independent variables
    » # years in Belgium (<2, <5, ≧5)
    » Oral language use (rated by the participants)
    » Level of education (primary school, secondary school, higher education)

RESULTS

DMT scores are influenced by:

- Number of years in Belgium (cf. Schuurs, 1998)

![Graph showing the influence of years in Belgium on DMT scores.](graph.png)
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RESULTS

Educational level (cf. Eurydice, 2011)

Local norms

- The development of norms based on multilingual children’s performance for existing tests can be more feasible than using norms for monolingual children (Paradis, Genesee & Crago, 2011).

→ Local norms are likely to be more informative than monolingual norms.
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RESULTS

- Percentile scores based on:
  - Raw scores per reading level
  - # words read per reading level
  - # errors per reading level

Local norms based on the raw scores per reading level

<table>
<thead>
<tr>
<th>Raw score</th>
<th>Percentile score</th>
<th>Raw score</th>
<th>Percentile score</th>
<th>Raw score</th>
<th>Percentile score</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.8</td>
<td>75</td>
<td>51.3</td>
<td>75</td>
<td>43.0</td>
<td>75</td>
</tr>
<tr>
<td>45.5</td>
<td>50</td>
<td>36.0</td>
<td>50</td>
<td>28.5</td>
<td>25</td>
</tr>
<tr>
<td>37.8</td>
<td>25</td>
<td>21.7</td>
<td>10</td>
<td>21.6</td>
<td>3</td>
</tr>
</tbody>
</table>

According to norms for monolingual children:
Raw score < 85 = pc < 10

- 4 participants scored < pc 10 according to the local norms
  - poor grapheme/phoneme correspondences

RESULTS

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Origin</th>
<th># years in Belgium</th>
<th>Mother tongue</th>
<th>Educational level</th>
<th>Repeated a year?</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>43</td>
<td>Morocco</td>
<td>4</td>
<td>Arabic</td>
<td>Primary school</td>
<td>yes, 2.1</td>
</tr>
<tr>
<td>M</td>
<td>20</td>
<td>China</td>
<td>2</td>
<td>Chinese</td>
<td>Secondary school</td>
<td>yes 1.2</td>
</tr>
<tr>
<td>M</td>
<td>24</td>
<td>Eritrea</td>
<td>2</td>
<td>Tigrinya</td>
<td>Secondary school</td>
<td>yes, 1.2 &amp; 2.1</td>
</tr>
<tr>
<td>M</td>
<td>41</td>
<td>Dominican Republic</td>
<td>17</td>
<td>Spanish</td>
<td>Higher education</td>
<td>yes, 2.1</td>
</tr>
</tbody>
</table>

• The DMT can be used as a screening tool for dyslexia with DSL-learners
• Screening is advisable only after 2 years in Belgium
• Persons identified to be at risk by this screening tool should be assessed further by a speech-language therapist
  ⇒ experience in assessment with multilinguals is necessary

CONCLUSIONS AND CLINICAL IMPLICATIONS

• Research on reliability/validity of DMT for DSL-learners
• Larger sample is needed (regional, educational level...)
• How to distinguish between reading errors and transfer errors?
• Other reading tests?

IDEAS FOR FUTURE RESEARCH
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