Writing Readiness Inventory Tool In Context (WRITIC) - normative data in regular education and initial evaluation in special education

Margo van Hartingsveldt PhD OT
Liesbeth de Vries MSc OT
Helga Haberfehlner MSc OT

Research group Occupational Therapy
ACHIEVE Centre of Expertise
Faculty of Health
Amsterdam University of Applied Sciences
The Netherlands
Handwriting is important

• connection between doing and thinking (James & Engelhart, 2012)
• 12-33% handwriting difficulties (Overvelde et al., 2010)
• prevention is important
• better prepared for grade 1 (Hoy et al, 2011)
WRITIC

Purpose
• evaluating writing readiness

Intended population
• kindergarten children
• typically developing
• 5 – 6 years old

In the context
• administered in the classroom
3 domains

Person
• interest paper- and pencil tasks
• sustained attention

Environment
• physical – desk & chair
• social – class climate

Paper-and-pencil tasks
• task performance (WRITIC-TP)
• intensity of performance
Drawing book
Scoring of the WRITIC
Psychometric research

N=251 classical test theory

Norm-referenced WRITIC-TP

- **validity**
  - content validity – discriminative validity
  - convergent validity with 9-HPT and Beery VMI
- **reliability**
  - internal consistency - test-retest reliability – interrater reliability
- **predictive validity**

Criterion-referenced domains

- ‘child’ and ‘environment’
  - important for advice and intervention
Normative data WRITIC-TP

<table>
<thead>
<tr>
<th>Total children</th>
<th>n = 374</th>
</tr>
</thead>
<tbody>
<tr>
<td>boys</td>
<td>190 (51%)</td>
</tr>
<tr>
<td>girls</td>
<td>184 (49%)</td>
</tr>
<tr>
<td>no migration background</td>
<td>316 (84%)</td>
</tr>
<tr>
<td>migration background</td>
<td>58 (16%)</td>
</tr>
<tr>
<td>right-handed</td>
<td>327 (87%)</td>
</tr>
<tr>
<td>left-handed</td>
<td>44 (13%)</td>
</tr>
</tbody>
</table>

- children from 5 to 6,5 year (M = 67 months)
- significant difference between boys and girls
Research Special Education (SE)

- N = 63 (5-7 year)
- 81% of the children was not ready for handwriting based on the norms of WRITIC
- good feasibility in SE

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRITIC-TU SE (raw score)</td>
<td>63</td>
<td>8</td>
<td>46</td>
<td>31,6</td>
<td>7,9</td>
</tr>
<tr>
<td>WRITIC-TU RE (raw score)</td>
<td>374</td>
<td>23</td>
<td>46</td>
<td>41,3</td>
<td>4,4</td>
</tr>
</tbody>
</table>
Manual

- Dutch 2016
- English 2018


