Evaluation of the BFI10 Personality Inventory with New Zealand University Students: Failing Psychometric Tests

Gavin T. L. Brown (The University of Auckland & Umeå Universitet)
Valerie A. Sotardi (University of Canterbury)

International Congress on Psychological Science, Paris March 2019

Big Five BFI10

C5 (R) I see myself as someone who has few artistic interests.
C10 I see myself as someone who has an active imagination.

C1 (R) I see myself as someone who is reserved.
C6 I see myself as someone who is outgoing, sociable.

C4 (R) I see myself as someone who is relaxed, handles stress well.
C9 I see myself as someone who gets nervous easily.

Alternative Models

Confirmatory Factor Analysis Fit Indices

<table>
<thead>
<tr>
<th>Model</th>
<th>χ²</th>
<th>df</th>
<th>χ²/df (p)</th>
<th>CFI</th>
<th>RMSEA (90%)</th>
<th>SRMR</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFI10 Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christchurch</td>
<td>52.77</td>
<td>25</td>
<td>2.11 (.15)</td>
<td>0.90</td>
<td>0.98</td>
<td>0.043 (.096)</td>
<td>0.047</td>
</tr>
<tr>
<td>Auckland</td>
<td>117.59</td>
<td>29</td>
<td>4.05 (.04)</td>
<td>0.73</td>
<td>0.97</td>
<td>0.096 (.078 - .115)</td>
<td>0.071</td>
</tr>
<tr>
<td>4 Factor PCA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christchurch</td>
<td>59.98</td>
<td>30</td>
<td>2.00 (.16)</td>
<td>0.90</td>
<td>0.98</td>
<td>0.066 (.041 - .090)</td>
<td>0.051</td>
</tr>
<tr>
<td>Auckland</td>
<td>145.53</td>
<td>32</td>
<td>4.55 (.03)</td>
<td>0.66</td>
<td>0.94</td>
<td>0.104 (.087 - .121)</td>
<td>0.081</td>
</tr>
<tr>
<td>3 components PCA; 9 items, 2 with dual loading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint Data</td>
<td>58.60</td>
<td>23</td>
<td>2.55 (.11)</td>
<td>0.94</td>
<td>0.99</td>
<td>0.053 (.036 - .069)</td>
<td>0.046</td>
</tr>
</tbody>
</table>

Conclusion

BFI 10 failed standard Classical and CFA psychometric tests

Problematic Scales: Openness, Agreeableness

Problematic Item: I see myself as someone who has few artistic interests.

Big Five NOT operationalized by this inventory.

Correspondence: Gavin T. L. Brown, email: gt.brown@auckland.ac.nz

BF110 Sources