Cultural Neuropsychology Frameworks and Intelligence Testing in Latin America

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KnowNeuropsychology May 4, 2020 Lecture Companion Notes

Resources for Best Practices in Cultural Neuropsychology & Hispanic Neuropsychology


Resources for Cultural Assessment Frameworks


Useful Sources to Quickly Access Cultural Information

CIA Factbook

Cultural Atlas

UNESCO Institute for Statistics
http://uis.unesco.org/

UNESCO International Standard Classification of Education

The World Bank
http://www.worldbank.org/

World Economic Forum

Pearson Clinical Translated and Adapted Tests

References


assessment of dementia in non-Western, low-educated or illiterate populations. *Journal of the International Neuropsychological Society*, 26, 331-351.

Duggan, E. C. (2019). Disseminating cultural neuropsychology research: Five key recommendations for skill development. *Archives of Clinical Neuropsychology, acz029.64*. doi:10.1093/arclin/acz029.64


<table>
<thead>
<tr>
<th>Test name</th>
<th>Structure of test</th>
<th>Norms</th>
<th>Age range (years)</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Escala de inteligencia de Wechsler para adultos-IV (WAIS-IV)</td>
<td>Four-factor scale assessing verbal comprehension, perceptual organization working memory, and processing speed as well as Verbal, Performance, and Full Scale IQ</td>
<td>Chile, Mexico, Argentina, Spain, USA, Canada</td>
<td>16-90</td>
<td>All indexes influences by language proficiency</td>
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<tr>
<td>Wechsler Abbreviated Scale of Intelligence (WASI-I)</td>
<td>Forms Verbal, Performance, and Full Scale IQ scores</td>
<td>USA</td>
<td>6-89</td>
<td>Short form of the WAIS-III that appears to underestimate IQ scores in minorities who are not acculturated to the USA</td>
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<tr>
<td>Spanish not yet available: Wechsler Abbreviated Scale of Intelligence- Second Edition (WASI-II)</td>
<td>Forms Verbal, Performance, and Full Scale IQ scores</td>
<td>USA</td>
<td>6-90</td>
<td>Not yet available in Spanish</td>
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<tr>
<td>Older Wechsler tests: Weschler Adult Inteligence Scale- Third Edition (WAIS-III)</td>
<td>Four-factor scale assessing verbal comprehension, perceptual organization working memory, and processing speed as well as Verbal, Performance, and Full Scale IQ</td>
<td>USA, Puerto Rico, Spain, Mexico</td>
<td>16-90, 16-64, 16-94, 16-70+</td>
<td>Scales influence by language proficiency Not recommended for clinical use Limited research, not recommended Adequate in Spain, underestimates in other Spanish-speaking populations Questionable norms, not well validated</td>
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<tr>
<td>Other Batteries</td>
<td>Forms verbal intelligence and nonverbal intelligence indexes as well as Full Scale IQ</td>
<td>USA</td>
<td>Spain</td>
<td>3-94</td>
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<tr>
<td>Reynolds Intellectual Assessment Scales (RIAS)</td>
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<tr>
<td>Batería III Woodcock-Muñoz-Pruebas de Habilidades Cognitivas (Batería III COG)</td>
<td>based on CHC model and has factors of crystallized intelligence, fluid reasoning, visual processing, short-term memory, long-term retrieval, processing speed, and auditory processing</td>
<td>Native Spanish Speakers</td>
<td>2-90+</td>
<td>Spanish version of the Woodcock-Johnson III Norming sample comprised of native Spanish speakers from Mexico, Coast Rica, Panama, Argentina, Colombia, Puerto Rico, and Spain and other Latin American countries Well-developed and good validity</td>
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<tr>
<td>Test Name</td>
<td>Description</td>
<td>Country</td>
<td>Age Range</td>
<td>Notes</td>
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<tr>
<td>Kaufman Brief Intelligence Test-Second Edition (K-BIT)</td>
<td>Forms crystallized intelligence, fluid reasoning, and Full Scale IQ scores</td>
<td>USA</td>
<td>4-90</td>
<td>Short form of the Kaufman scales. Verbal answers can be given in Spanish or English with different scoring procedures provided for both. Spanish speaking individuals not included in standardization sample.</td>
</tr>
<tr>
<td>Stanford-Binet Intelligence Scales-Fifth Edition (SB5)</td>
<td>Based on CHC model and has factors of crystallized intelligence, fluid reasoning, visual processing, short-term memory, and quantitative knowledge</td>
<td>USA</td>
<td>2-90+</td>
<td>Very little research available on applicability towards Spanish speaking populations</td>
</tr>
<tr>
<td>Desarrollo e las Habilidades Cognitivas (DHAC)</td>
<td>Forms abstract reasoning and verbal reasoning scores. Not clear if also provides a single IQ score.</td>
<td></td>
<td>11+</td>
<td>Author: de la Cruz. Publisher: TEA Ediciones.</td>
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<td>Test de Inteligencia Breve de Reynolds (RIST)</td>
<td>Verbal subtest and non-verbal subtest form measures of crystallized intelligence, fluid intelligence, and overall IQ</td>
<td></td>
<td>3-94</td>
<td>Authors: RW Kamphaus &amp; CR Reynolds. Publisher: TEA Ediciones.</td>
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<td>Test de Interpretación Selectiva de Datos (TISD)</td>
<td>Estimates general intellectual capacity through the evaluation of the ability to capture and assimilate information presented through tables and graphs.</td>
<td>Spain</td>
<td>Argentina</td>
<td>Adults</td>
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<td>Evaluación Factorial de las Aptitudes Intelectuales (EFAI)</td>
<td>Provides verbal intelligence, non-verbal intelligence, and general intelligence scores</td>
<td>Spain</td>
<td>EFAI 4: adults</td>
<td>Adults</td>
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<tr>
<td>Batería de Aptitudes de TEA (BAT-7)</td>
<td>Provides estimates of inteligencia fluida (Gf), inteligencia crisilizada (Gc), &amp; factor g o capacidad general (g)</td>
<td>Spain</td>
<td>Colombia</td>
<td>12+</td>
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<tr>
<td>Nonverbal</td>
<td>Nonverbal test that contains four tests, which results in an overall score</td>
<td>Scale 3: 15+</td>
<td>Authors: RB Cattell &amp; AKS Cattell. Publisher: TEA Ediciones. Especialmente destinada a la evaluación de la capacidad mental en adultos de nivel cultural superior, profesionales, etc.</td>
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<tr>
<td>Matrices, Test de Inteligencia General</td>
<td>Nonverbal test that provides estimate of fluid intelligence (Gf) with matrices</td>
<td>6-74</td>
<td>Authors: F Sánchez-Sánches, &amp; P Sanatamaría. Publisher: TEA Ediciones.</td>
<td></td>
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<tr>
<td>Matrices TAI, Test de Adaptativo Inteligencia General</td>
<td>Nonverbal test that provides estimate of fluid intelligence (Gf) with matrices</td>
<td>6-74</td>
<td>Authors: FJ Abad, F Sánchez-Sánches &amp; P Sanatamaría. Publisher: TEA Ediciones.</td>
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<tr>
<td>Test Beta II, Instrumento No Verbal De Inteligencia</td>
<td>Nonverbal test that includes 5 components including visual information processing, processing speed, spatial reasoning, non-verbal reasoning, and fluid intelligence to produce a FSIQ.</td>
<td>16-89</td>
<td>Authors: CE Kellog &amp; NW Morton. Publisher: Manual Moderno.</td>
<td></td>
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<tr>
<td>Inteligencia General, Nivel 2 (IG-2)</td>
<td>Nonverbal test that provides IQ estimate</td>
<td>Adolescentes y adultos</td>
<td>Author: Departamento I+D de TEA Ediciones, S.A. Publisher: TEA Ediciones.</td>
<td></td>
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<tr>
<td>Niveles Elemental, Medio y Superior (NAIPES II)</td>
<td>Nonverbal test that provides IQ estimate</td>
<td>Superior: 16+</td>
<td>Authors: N García Nieto &amp; C. Yuste. Publisher: TEA Ediciones.</td>
<td></td>
</tr>
<tr>
<td>Test de Inteligencia No Verbal (TONI-2)</td>
<td>Nonverbal test that provides IQ estimate</td>
<td>Spain Chile</td>
<td>Autor: L. Brown, RJ Sherbenou &amp; SK Johnsen. Publisher: TEA Ediciones.</td>
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</table>

Based on research by E. C. Duggan, and adapted from Ojeda (2010); Thaler & Jones-Forrester (2013); and von Thomsen, Gallup, &
OBJECTIVE: Cultural neuropsychology has been called upon to meet the demand for more empirical tools and frameworks to use with our diverse populations. While much is being done, we have largely been “playing a game of catch-up” (Manly, 2008) and researchers have been encouraged to reinvent their approaches (Suchy, 2016). In this regard, one area of opportunity is promoting the development of cultural neuropsychology research dissemination. METHODS: Relevant literature and professional experiences were used to identify cultural neuropsychology research dissemination barriers and provide 5 recommendations.

1. USE EMPIRICALLY SUPPORTED KNOWLEDGE DISSEMINATION FRAMEWORKS

Good resources include:
- Brownson et al. (2018). Getting the word out: New approaches for disseminating public health science. JPHMP, 24(2), 102-111

2. COLLABORATE

Professional collaboration and research visibility are fundamental to the success!

3. PROVIDE CLEAR CLINICAL APPLICATIONS

Present findings with clinical application in easily understood and implementable ways.
- Use clear titles and clarify “insider” knowledge.

4. REPORT INFORMATION ACCESSIBLY

Report study variables in internationally compatible/meaningful units.
- Education can be reported using UNESCO’s International Standard Classification of Education (ISCED; uis.unesco.org).
- Details about socioeconomic structure and status can quickly be accessed at the Word Bank (www.worldbank.org).

5. Translate!

- Negotiate with journals to allow for translated manuscripts and supplemental materials.
- Often translations and other creative content can go on your personal website. ¡Traducir!

DISCUSSION: Neuropsychologists are eager for more culturally informed and clinically applicable research. Thus, cultural neuropsychology researchers focusing on developing their dissemination skills in these five highlighted areas are well positioned to increase the impact of their work and promote growth within cultural neuropsychology and neuropsychology more broadly.

REFERENCES