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CLUES Library Catalogue

Database Name: Mental Measurements Yearbook

Mental Measurements Yearbook with Tests in Print
- Description: Mental Measurements Yearbooks with Tests in Print is designed to assist professionals in selecting and using standardized tests. The series, initiated in 1938, provides factual information, critical reviews, and comprehensive bibliographic references on the construction, use, and validity of all tests published in English.

Alternate Resource Name: MMY with Tests in Print
- Description: EBSCO Mental Measurements Yearbook with Tests in Print

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   **Subjects:** Intelligence and General Aptitude

   ![HTML Full Text](image)

2. **Wechsler Intelligence Scale for Children--Fifth Edition**


   **Subjects:** Intelligence and General Aptitude

   ![HTML Full Text](image)

3. **Wechsler Intelligence Scale for Children--Fifth Edition, Spanish**


   **Subjects:** Intelligence and General Aptitude

   ![HTML Full Text](image)
Review of the Wechsler Intelligence Scale for Children-Fifth Edition by NICHOLAS F. BENSON, Associate Professor of School Psychology, The University of South Dakota, Vermillion, SD.

DESCRIPTION: The Wechsler Intelligence Scale for Children-Fifth Edition (WISC-V) is an individually administered intelligence test designed for children ages 6 years, 0 months to 16 years, 11 months. The WISC-V consists of 21 subtests, including 10 primary subtests (i.e., Block Design, Coding, Digit Span, Figure Weights, Matrix Reasoning, Picture Span, Similarities, Symbol Search, Visual Puzzles, and Vocabulary); six secondary subtests (i.e., Arithmetic,Cancellation, Comprehension, Information, Letter-Number Sequencing, and Picture Concepts); and five complementary subtests (i.e., Delayed Symbol Translation, Immediate Symbol Translation, Naming Speed Literacy, Naming Speed Quantity, and Recognition Symbol Translation).

The WISC-V framework consists of four levels of interpretation, with various combinations of subtest scores used to calculate index scales at each level. The full scale is the first level of interpretation and consists of one composite score, the Full Scale IQ (FSIQ), which is the primary estimate of general intelligence (g). The FSIQ is derived from most, but not all, of the primary subtests. Picture Span, Symbol Search, and Visual Puzzles may be used as substitutes, as may several of the secondary subtests (i.e., Arithmetic, Cancellation, Comprehension, Information, Letter-Number Sequencing, and Picture Concepts). The second level of interpretation is the primary index scale level, which consists of index scores for the following five scales: Fluid Reasoning, Processing Speed, Verbal Comprehension, Visual Spatial, and Working Memory. Scores at the primary index level are derived from the primary subtests, and subtest substitution is not permitted. The third level is the ancillary index scale level, which consists of index scores for the following five scales: Auditory Working Memory, Cognitive Proficiency, General Ability, Nonverbal, and Quantitative Reasoning. Scales at the ancillary index level are derived from various combinations of primary and secondary subtests, and subtest substitution is not permitted. The fourth level is the complementary index scale level, which consists of index scores for the following three scales: Naming Speed, Symbol Translation, and Storage and Retrieval. Both the Naming Speed Index and the Symbol Translation Index are derived from complementary subtests. The Storage and Retrieval Index is derived from the Naming Speed Index and the Symbol Translation Index. In addition to the aforementioned subtests and levels of interpretation, the WISC-V includes 10 scaled or standard process scores based on variations of the Block Design, Cancellation, Digit Span, and Naming Speed Literacy subtests. The test authors propose that these process subtests are useful for qualitative evaluation of test performance.

DEVELOPMENT: The WISC-V is the latest revision of David Wechsler's original intelligence test for children, which was published in 1949. This is the third revision that has been completed subsequent to Wechsler's death in 1981, and the test publisher is striving to maintain consistency with Wechsler's views of intelligence while incorporating progressive changes in response to relevant empirical research. Although the technical and interpretive manual includes discussion of theoretical foundations, readers are referred to alternative sources for reviews of various models that can be applied in WISC-V interpretation (p. 23). This referral to alternative sources creates ambiguity regarding the intended theoretical structure and the corresponding interpretive strategies that are recommended. In addition to updating theoretical foundations, other revision goals include increasing developmental appropriateness and user friendliness, improving psychometric properties, and enhancing clinical utility. Efforts to meet these goals include, but are not limited to (a) developing eight new subtests, (b) modifying administration and scoring procedures, and (c) replacing or revising items for each of the 13 subtests retained from the previous edition.

TECHNICAL:

Standardization: Pilot and national tryout studies were used to develop a standardization edition of the WISC-V, and normative data were subsequently collected from April 2013 to March 2014. The normative sample consists of 2,200 examinees separated into 33 age-based groups, with each group representing a four-month interval. Each age-based group consists of approximately 67 children, exceeding Kranzler and Ford's (2013) recommendation of at least 30 to 50 children per group. Stratified sampling was used to ensure that age groups are representative of the October 2012 U.S. Census Bureau data with respect to age, sex, race/ethnicity, parent education level, and geographic region. Moreover, a representative proportion of students with various special education classifications was added at each age level. Exclusionary criteria for the normative sample included sensory deficits, having a primary language other than English, displaying disruptive or noncompliant behavior, and other personal and environmental issues likely to have a negative impact on performance.

In contrast to the meticulous description of sampling procedures, scant evidence is provided to support the absence of bias across variables such as age, sex, race/ethnicity, and disability status. The Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014) describes bias as any construct-relevant source of variance that produces systematic differences in test scores between identifiable groups of examinees. By definition, construct-irrelevant variance refers to any variance that is independent from the construct of interest and thus arises from extraneous sources. Evidence should be presented to demonstrate that (a) items do not function differently across identifiable groups; (b) the same constructs are measured across identifiable groups; numerical values of test scores are on the same measurement scale across these groups, and the probability of obtaining a given observed score is independent of group membership; and (c) predictor/criterion regressions are invariant across identifiable groups (e.g., the FSIQ predicts math reasoning skills equally well across racial/ethnic groups). Finally, as with previous versions, the WISC-V is likely to be of limited utility when testing children with moderate to severe intellectual disabilities because a standard score of 40 is the lowest possible FSIQ, General Ability Index (GAI), or Nonverbal Index (NVI) score that can be obtained. At the other extreme of intelligence, the ceiling
Wechsler Intelligence Scale for Children–Fifth Edition, Integrated

Review of the Wechsler Intelligence Scale for Children–Fifth Edition, Integrated by ALBERT M. BUGAJ, Department of Psychology, UW-Marinette & UW Online, Marinette, WI.

DESCRIPTION. As noted in the Administration and Scoring Manual for this instrument, the Wechsler Intelligence Scale for Children–Fifth Edition, Integrated (WISC-V Integrated) “is an individually administered clinical instrument for assessing the cognitive processes of children ages 6 years 0 months through 16 years 11 months” (p. 1). Based on the Boston Process Approach to neuropsychological assessment (Kaplan, 1998) the WISC-V Integrated is intended to be administered with, or following administration of, the WISC V A process approach to test scoring and interpretation intends to identify the cognitive subprocesses that lead to a test taker’s scores. The WISC-V Integrated is designed for a number of clinical purposes, such as testing the limits of a child’s performance, obtaining more detailed information about a child’s cognitive processing, and making intervention recommendations.

The test is designed to be administered in its entirety, or more commonly, just as selected subtests chosen based on a child’s performance on the WISC-V. For example, a student may receive a low Verbal Comprehension Index (VCI) score on the WISC-V. Using the WISC-V Integrated, the examiner could administer WISC-V Integrated subtests analogous to those that contribute to the Verbal Comprehension Index, each testing the child in different modalities. These include, for example administering the Similarities subtest in a multiple-choice format, thereby reducing the demands on the test taker for verbal expression and memory retrieval. Vocabulary can also be tested in a multiple-choice format (Vocabulary Multiple Choice, or VCMC), as well as via a Picture Vocabulary Multiple Choice (PVMC) subtest. Comparison of Vocabulary, VCMC, and PVMC scores allows an assessment of the test taker’s receptive and expressive language skills.

The WISC-V Integrated comprises 14 subtests, eight of which are adaptations of WISC-V subtests. From the 14 subtests, 16 scaled scores, allowing comparison of the test taker to others of the same chronological age, are derived. Two index scores, seven raw score to base rate conversions, 27 pairwise difference scores, and five discrepancy comparisons can also be made. This process results in a potential 59 scores.

The Administration and Scoring Manual is highly detailed and includes clear instructions regarding testing. Instructions for subtest administration are unambiguous. The manual cautions that “in most cases” (p. 9) of the test should have completed formal graduate- or professional-level training. This strong suggestion is indeed the case. Test administration is extremely complex, as is scoring. Both the administration manual and technical manual require a high level of reading skill, and comprehending the latter requires a strong understanding of test construction and testing theory.

Visualy, the stimulus materials are well designed. Verbal and numerical items are written to avoid references to monetary values and units of measure particular to any given nation. Also, these items are presented in a relatively large, clear, and simple typeface. Verbal and pictorial items carefully avoid any type of gender or ethnic content that could create bias. Pictorial images contain a good balance of gender and ethnic groups. Attractive, colorful, and modern looking artwork appears throughout the test booklet. One caveat concerning the materials involves the plastic-coil-bound stimulus books and manuals. The durability of these materials over time must be questioned. Otherwise, the nature of the materials is exemplary.

DEVELOPMENT. At the commencement of development, the technical manual reports “extensive literature reviews” (p. 21) were conducted to provide an initial set of revision goals. Three online surveys of childhood assessment professionals and practitioners (Ns = 390, 220, and 25) were also conducted. The nature of the surveys and their results are not described in the manual. Likewise, each stage of development involved semiannual surveys of cognitive ability and assessment experts, but neither the sample sizes nor results of these investigations are described in the manual.

During the pilot stage of development, three min studies (Ns = 12, 8, and 17) and one stratified national study (N = 417) were conducted. Each study employed various groups of WISC-V Integrated subtests, along with newly proposed subtests. During this stage, issues of item content and relevance, adequacy of subtest floors and ceilings, clarity of instructions, administration procedures, identification of response processes, scoring criteria, and item bias were addressed.

TECHNICAL.

Standardization. The normative sample consisted of 550 children, divided into 11 age groups, ranging from 6 years to 16 years 11 months. Except for four groups, each consisted of equal numbers of males and females. In groups with unequal numbers of the two sexes, differences were small, ranging from four to 12. Based on data reported in 2012, the normative sample was stratified according to race/ethnicity, parent education level, and geographic region. About 14-15% of the normative sample for each age group included children from the special education classifications of developmental delay, intellectual disability, specific learning disabilities, speech/language impairment, attention-deficit/hyperactivity disorder (ADHD), and gifted and talented. Percentages of children in each category were generally close to those in the overall population. The only exception is the category of gifted and talented, where strict use of intelligence test criteria (IQ of 130 or higher), justified the smaller sample size. All children tested during standardization spoke English as their first language.

Bartlett’s test of homogeneity of variance indicated no differences between the variance of sums of scaled scores between age groups. Analysis of variance also revealed no statistically significant differences by age in the mean sum of scaled scores for each index.

Reliability. The internal consistency of the test was examined via the split-half method, using data from the normative sample. Split-half reliability coefficients were quite high, with average coefficients calculated across age groups ranging from .77 to .93. Example coefficients between test halves for specific age groups: no correlations were lower than .83.

**Reviewed by:** Damien C. Cormier, Kathleen E. Kennedy, and Alexandra M. Aquilina, 
*University of Alberta, Edmonton, Alberta, Canada.*

DOI: 10.1177/0829573516648941

**Test Description**

The *Wechsler Intelligence Scale for Children, Fifth Edition: Canadian (WISC-VC\textsuperscript{CDN}; Wechsler, 2014)* is published by Pearson Canada Assessment. The WISC-VC\textsuperscript{CDN} is a norm-referenced, individually administered intelligence battery that provides a comprehensive diagnostic profile of the cognitive strengths and weaknesses of children and adolescents ranging from 6 years 0 months to 16 years and 11 months of age. The structure of the WISC-VC\textsuperscript{CDN} not only continues with the Wechsler tradition but also
Context

Aiken et al. (1990)
None at PhD (¼)
No $r_{XX}, r_{XY}$ (¼)
None “elite” (½)

Vacha–Haase & Thompson (2011)
47 meta-analyses
> 13,000 primary
55%, no $r_{XX}$
Regulations and other acts

Gouvernement du Québec


Professional Code
(R.S.Q., c. C-26; 2006, c. 20)

Psychologues
— Diploma and training equivalence standards for
the issue of a permit by the Ordre

WHEREAS, in accordance with sections 10 and 11 of
the Regulations Act (R.S.Q., c. R-18.1), the draft Regu-
lation was published in Part 2 of the Gazette officielle du
Québec of 6 September 2006 with a notice that it could
be submitted to the Government for approval on the
expiry of 45 days following that publication;

WHEREAS, following that publication, the Office des
professions du Québec did not receive any comments;

WHEREAS, in accordance with section 95 of the Profes-
sional Code, the Office des professions du Québec
examined the Regulation and made its recommendation;

WHEREAS it is expedient to approve the Regulation
with amendments;

IT IS ORDERED, therefore, on the recommendation of
the Minister responsible for the administration of legis-
lation respecting the professions:

THAT the Regulation respecting diploma and training
equivalence standards for the issue of a permit by the
Ordre des psychologues du Québec, attached to this
Order in Council, be approved.
In this Regulation:

"credit" means the quantitative value assigned to the activities of a student as part of a university practical training or research program; if the activity is a formal course, one credit represents 15 hours of teaching and 30 hours of personal work;

"diploma equivalence" means recognition by the Order that a diploma issued by an educational institution outside Québec certifies that a candidate's level of knowledge and skills is equivalent to the level attained by the holder of a diploma recognized by a regulation of the Government, made pursuant to the first paragraph of section 184 of the Professional Code (R.S.Q., c. C-26), as giving access to the permit issued by the Order;

"internship" means an activity allowing a student to assimilate knowledge and apply recognized methods to diverse groups and problems in a professional working environment under the supervision of at least one psychologist having a minimum of two years of practical experience if he or she holds a doctorate or a minimum of six years of practical experience if he or she holds a master's degree, in the field in which the internship is being served, or under the supervision of at least one professional working in psychology whose expertise and experience the committee referred to in section 10 considers to be equivalent to that of a psychologist having the same minimum qualifications;

"training equivalence" means recognition by the Order that a candidate's training has enabled him or her to attain a level of knowledge and skills equivalent to the level attained by the holder of a diploma recognized by a regulation of the Government, made pursuant to the first paragraph of section 184 of the Professional Code, as giving access to the permit issued by the Order;

"training period" means an activity allowing a student to become familiar with the practice of the profession of psychologist with a variety of client groups, including psychological evaluation and diagnosis, treatment, research, ethics and professional conduct, consultation and supervision.

DIVISION II
DIPLOMA EQUIVALENCE STANDARDS

2. A candidate who holds a diploma issued by a university-level educational institution outside Quebec is granted a diploma equivalence if he or she can demonstrate that:

   (1) the diploma in psychology was obtained upon completion of a university program in psychology of a level equivalent to that of a program in psychology leading to one of the diplomas in psychology recognized as giving access to the permit issued by the Order.

   The programs of studies must include a minimum of 45 credits in courses and research and a minimum of 2,300 hours of supervised practical training (700 hours in training periods and 1,600 hours of internship, for a total of 51 credits) apportioned so as to allow acquisition of the following professional skills considered to be necessary for the practice of psychology:

   i. interpersonal relationships: a minimum of 3 credits;

   ii. psychological evaluation and diagnosis: a minimum of 500 hours of practical training and 9 credits in evaluation methods and in psychopathology or dysfunction;

   iii. treatment: a minimum of 500 hours of practical training and 9 credits of which a minimum of 3 are in the treatment of individuals, 3 in the treatment of systems (couple, family, group, organizations, etc.) and 3 optional credits in treatment;

   iv. research: a minimum of 6 credits in research processes and methods;

   v. ethics and professional conduct: a minimum of 3 credits;

   vi. consultation and supervision: a minimum of 3 credits;
ii. cognitive and affective bases of behavior: a minimum of 6 credits;

iii. social and cultural bases of behavior: a minimum of 6 credits;

iv. developmental psychology: a minimum of 6 credits;

v. history and systems in psychology: a minimum of 3 credits;

vi. psychometrics: a minimum of 3 credits;

vii. research methods: a minimum of 3 credits;

viii. data analysis: a minimum of 3 credits;

ix. personality: a minimum of 3 credits;

x. psychopathology: a minimum of 3 credits.

3. Despite section 2, if the diploma for which an equivalence application is made was obtained more than five years before the application and, considering the developments in the profession, the knowledge certified by the diploma no longer corresponds to the knowledge currently being taught, the candidate is granted a training equivalence pursuant to section 4 if the candidate has attained the required level of knowledge and skills since obtaining his or her diploma.

DIVISION III
TRAINING EQUIVALENCEx STANDARDS

4. A candidate is granted a training equivalence if the candidate demonstrates having a level of knowledge and skills equivalent to the level attained by the holder of a diploma recognized by a regulation of the Government, made pursuant to the first paragraph of section 184 of the Professional Code, as giving access to a permit issued by the Order.

5. the fact that the candidate has obtained one or more diplomas in Québec or elsewhere.

DIVISION IV
TRAINING EQUIVALENCEx RECOGNITION PROCEDURE

5. A candidate who wishes to have a diploma or training equivalence recognized must provide the secretary with the following documents, which are required to support the candidate’s application, together with the application processing fees payable under paragraph 8 of section 86.0.1 of the Professional Code:

(1) the candidate’s academic record, including the official transcript, a description of courses taken and the number of hours or credits for each course;

(2) a copy of any diploma obtained, certified true by the educational institution;

(3) an official attestation from the university-level educational institution that issued the diploma confirming that the internships and training periods have been successfully completed;

(4) an official attestation of participation in any other training period or training activity, a description of the activities in the training period or training activity including the number of hours, the number of hours of supervision and the qualifications of the supervisor; and

(5) an official attestation and a description of relevant work experience, including a description of the duties and responsibilities assumed, the number of hours of work with or without supervision and the qualifications of the immediate manager or, if applicable, the immediate supervisor.

6. Documents in a language other than French or English submitted in support of an application for
Table 1
Journal Article Reporting Standards (JARS): Information Recommended for Inclusion in Manuscripts That Report New Data Collections Regardless of Research Design

<table>
<thead>
<tr>
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<tr>
<td>Title and title page</td>
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<td>Title</td>
<td>- Identify main variables and theoretical issues under investigation, the relationships between them. Identify the populations studied.</td>
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<td>Author note</td>
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<td>- Registration information if the study has been registered</td>
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<td>- Use of data also appearing in previous publications</td>
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<td>- Prior reporting of the fundamental data in dissertations or conference papers</td>
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<td>- Relationships or affiliations that may be perceived as conflicts of interest</td>
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<td>- Contact information for the corresponding author</td>
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<td>- Additional information of importance to the reader that may not be appropriately included in other sections of the paper</td>
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<tr>
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<tr>
<td>Objectives</td>
<td>- State the problem under investigation.</td>
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<td>- Main hypotheses</td>
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<td>Participants</td>
<td>- Describe subjects (animal research) or participants (human research), specifying their pertinent characteristics for this study; in animal research, include genus and species. Participants will be described in greater detail in the body of the paper.</td>
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<td>Study method</td>
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<td>- Research design (e.g., experiment, observational study)</td>
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<td>- Sample size</td>
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<td>- Materials used (e.g., instruments, apparatus)</td>
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<td>- Outcome measures</td>
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<td></td>
<td>- Data-gathering procedures, including a brief description of the source of any secondary data. If the study is a secondary data analysis, so indicate.</td>
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</tbody>
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Psychometrics

- Estimate and report values of reliability coefficients for the scores analyzed (i.e., the researcher’s sample), if possible. Provide estimates of convergent and discriminant validity where relevant.
- Report estimates related to the reliability of measures, including
  - Interrater reliability for subjectively scored measures and ratings
  - Test–retest coefficients in longitudinal studies in which the retest interval corresponds to the measurement schedule used in the study
  - Internal consistency coefficients for composite scales in which these indices are appropriate for understanding the nature of the instruments being employed in the study
- Report the basic demographic characteristics of other samples if reporting reliability or validity coefficients from those sample(s), such as those described in test manuals or in the norming information about the instrument.
Scores

\[ z = \frac{X - M}{SD} \]
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Ratio IQ = \( \frac{MA}{CA} \times 100 \)

E.g., CA = 10.0, MA = 12.5

\[
\text{Ratio IQ} = \frac{12.5}{10.0} \times 100 = 125
\]
Birth to 36 months: Boys
Length-for-age and Weight-for-age percentiles

NAME ____________________________

RECORD # ________________________

[Graph showing growth percentiles for boys from birth to 36 months]
Example: \( z = .50 \)

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### Normal Distribution Table

![Normal Distribution Diagram](image)

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http://onlinestatbook.com/2/calculators/normal_dist.html
Reliability
Set A, Set B
Test-retest
Alternate form
Interrater
$$\max |r_{xy}| = \sqrt{r_{xx} \times r_{yy}}$$

E.g., $r_{xx} = .70$, $r_{yy} = .10$

$$\max |r_{xy}| = \sqrt{.70 \times .10} = .26$$

$$-.26 \leq r_{xy} \leq .26$$

$$X = t + e$$

$e > 0$, $X > t$

$e < 0$, $X < t$

$e = 0$, $X = t$

$$s_x^2 = s_t^2 + s_e^2$$

$$r_{xx} = \frac{s_t^2}{s_x^2}$$

$$1 - r_{xx} = \frac{s_e^2}{s_x^2}$$
<table>
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<th>Error</th>
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<td>Rater sampling</td>
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<td>consistency</td>
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</table>
Mulsant et al. (2002)  
Reported (%)...  
No. raters, 17%  
Training, 10  
Interrater, 14–22  
Drift, 5

12-item test  
1st half–2nd half  
\[ t_{1/2} = \sum (i_1 - i_6) \]  
\[ t_{2/2} = \sum (i_7 - i_{12}) \]

Odd–even  
\[ t_o = \sum (i_1, i_3, i_5, i_7, i_9, i_{11}) \]  
\[ t_e = \sum (i_2, i_4, i_6, i_8, i_{10}, i_{12}) \]
How many?

\[
\frac{1}{2} \times \frac{12!}{6! 6!} = 462
\]

\[
\frac{1}{2} \times \frac{30!}{15! 15!} = 77,558,760
\]

\[r_{hh} = .70\]

\[r_{S-B} = \frac{2 r_{hh}}{1 + r_{hh}}\]

\[r_{S-B} = \frac{2(.70)}{1+.70} = .82\]
Cronbach’s $\alpha$

\[ r_{K-R20} \]
\[ n \times \bar{r}_{ij} \]
\[ \bar{r}_{ij} = 0 \]
\[ \bar{r}_{ij} > 0 \]
\[ \bar{r}_{ij} < 0; \alpha, r_{K-R20} < 0 \]

0 = disagree, 1 = uncertain, 2 = agree
1. My general health is good.
2. I often feel unhealthy.
3. I worry little about my health.
0 = disagree, 1 = uncertain, 2 = agree
1. My general health is good.
3. I worry little about my health.

2 = disagree, 1 = uncertain, 0 = agree
2. I often feel unhealthy.

\[
\alpha = \frac{n}{n-1} \left( \frac{s_t^2 - \sum s_i^2}{s_t^2} \right)
\]

\[
r_{K-R20} = \frac{n}{n-1} \left( \frac{s_t^2 - \sum p_i q_i}{s_t^2} \right)
\]
\( \alpha \) and \( r_{S-B} \)

If equal \( s_i^2 \)

\[ \alpha = \overline{r}_{S-B} \]

**WAIS-IV Vocabulary**

\[
\begin{align*}
  r_{tt} & = .89 & 1 - .89 & = .11 \\
  \alpha & = .94 & 1 - .94 & = .06 \\
  r & = .95 & 1 - .95 & = .05 \\
  \Sigma & & 1 - .22 & = .78
\end{align*}
\]
Name: ______________________________ Marital Status: _______ Age: ______ Sex: ______
Occupation: __________________________ Education: __________________________

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness
   0  I do not feel sad.
   1  I feel sad much of the time.
   2  I am sad all the time.
   3  I am so sad or unhappy that I can't stand it.

6. Punishment Feelings
   0  I don't feel I am being punished.
   1  I feel I may be punished.
   2  I expect to be punished.
   3  I feel I am being punished.
### Descriptive Statistics

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\[
\alpha = \frac{n}{n-1} \left( \frac{s_t^2 - \sum s_i^2}{s_t^2} \right)
\]
Reliability

Scale: ALL VARIABLES

Case Processing Summary

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a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

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PASW Statistics Processor is ready.
Scale: ALL VARIABLES

Case Processing Summary

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Note: Listwise deletion based on all variables in the procedure.

Reliability Statistics

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Notes:
- The items are 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
- The items are 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21
S-B revisited

\[ r_{S-B} = \frac{k \cdot r_{XX}}{1 + (k - 1) \cdot r_{XX}} \]

\[ k = \frac{n_{\text{new}}}{n_{\text{old}}} \]

E.g., \( n = 80, r_{XX} = .75 \)

Reduce to 5

\[ k = \frac{5}{80} = .0625 \]

\[ r_{S-B} = \frac{.0625 \cdot .75}{1 + (.0625 - 1) \cdot (.75)} = .16 \]
E.g., $n = 10, r_{XX} = .55$

Double length

$k = \frac{20}{10} = 2$

$$r_{S-B} = \frac{2(.55)}{1 + (2 - 1).55} = .71$$

E.g., $r_{XX} = .35, r_{S-B} = .90$

Find $k$

$$.90 = \frac{k(.35)}{1 + (k - 1).35}$$

$k = ?$
\[ .90 = .35k / [1 + (k - 1)(.35)] \]
\[ .90 [1 + (k - 1)(.35)] = .35k \]
\[ .90 [(1 + .35k - .35)] = .35k \]
\[ .90 + .315k - .315 = .35k \]
\[ .90 - .315 = .35k - .315k \]
\[ .585 = .035k \]
\[ .585 / .035 = k \]
\[ k = 16.71 \]
Confidence intervals

\[ \text{SEM} = f \left( r_{xx}, SD_t \right) \]

\[ r_{xx} \downarrow, \quad \text{SEM} \uparrow, \quad \text{CI} \leftrightarrow \]

\[ X = t + e \]
SEM = $SD_t \sqrt{1 - r_{xx}}$

If $r_{xx} = 1$, then
SEM = 0

If $r_{xx} = 0$, then
SEM = $SD_t$

E.g., $r_{xx} = .80$, $SD_t = 15.0$
SEM = $15.0 \sqrt{1 - .80} = 6.71$

95% CI

$X \pm SEM \ (z_\alpha = .05, \ 2\text{-tail})$

$z_\alpha = .05, \ 2\text{-tail} = 1.96$
E.g., $X = 92$, $SD_t = 15.0$
$r_{XX} = .80$, $SEM = 6.71$
$z_{\alpha} = .05$, 2-tail = 1.96
$92 \pm 6.71 (1.96)$
$92 \pm 13.15$
$[78.85, 105.15]$
Validity
Kane (2013)
1. Context of use
2. Score interpretation
3. Evidence needed

Evidence
1. Test content
2. Internal structure
3. Covariance
4. Response process
Test specifications
Input (content)
Operations
Output
Number of items
Time limits
Difficulty

E.g., real estate law

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<td>8</td>
<td>8</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>28</td>
<td>24</td>
<td>80</td>
<td>100%</td>
</tr>
<tr>
<td>Percentage</td>
<td>35%</td>
<td>35%</td>
<td>30%</td>
<td></td>
<td>100%</td>
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</tbody>
</table>
### E.g., Grade 6 biology

<table>
<thead>
<tr>
<th>Reporting Category</th>
<th>Topic</th>
<th>Points</th>
<th>Total Points on Form</th>
<th>Approximate percent of test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Earth Science</strong></td>
<td>The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.</td>
<td>15 - 17</td>
<td></td>
<td>25% - 32%</td>
</tr>
<tr>
<td></td>
<td>The sun is one of many stars that exist in the universe.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Most of the cycles and patterns of motion between the Earth and sun are predictable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Life Science</strong></td>
<td>Organisms perform a variety of roles in an ecosystem.</td>
<td>19 - 21</td>
<td>54 - 56</td>
<td>32% - 40%</td>
</tr>
<tr>
<td></td>
<td>All of the processes that take place within organisms require energy.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical Science</strong></td>
<td>The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.</td>
<td>19 - 21</td>
<td></td>
<td>32% - 40%</td>
</tr>
<tr>
<td></td>
<td>Light and sound are forms of energy that behave in predictable ways.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E.g., Revised SAT
https://collegereadiness.collegeboard.org/pdf/test-
specifications-redesigned-sat-1.pdf
<table>
<thead>
<tr>
<th>Category</th>
<th>Current SAT</th>
<th>Redesigned SAT</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Testing Time</strong></td>
<td>3 hours and 45 minutes</td>
<td>3 hours (plus 50 minutes for the Essay [optional])</td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td>a) Critical Reading</td>
<td>a) Evidence-Based Reading and Writing</td>
</tr>
<tr>
<td></td>
<td>b) Writing</td>
<td>» Reading Test</td>
</tr>
<tr>
<td></td>
<td>c) Mathematics</td>
<td>» Writing and Language Test</td>
</tr>
<tr>
<td></td>
<td>d) Essay</td>
<td>b) Math</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Essay (optional)</td>
</tr>
<tr>
<td><strong>Important Features</strong></td>
<td>» Emphasis on general reasoning skills</td>
<td>» Continued emphasis on reasoning alongside a clearer, stronger focus on the knowledge, skills, and understandings most important for college and career readiness and success</td>
</tr>
<tr>
<td></td>
<td>» Emphasis on vocabulary, often in limited contexts</td>
<td>» Greater emphasis on the meaning of words in extended contexts and on how word choice shapes meaning, tone, and impact</td>
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<tr>
<td></td>
<td>» Complex scoring (a point for a correct answer and a deduction for an incorrect answer; blank responses have no impact on scores)</td>
<td>» Rights-only scoring (a point for a correct answer but no deduction for an incorrect answer; blank responses have no impact on scores)</td>
</tr>
<tr>
<td><strong>Essay</strong></td>
<td>» Required and given at the beginning of the SAT</td>
<td>» Optional and given at the end of the SAT; postsecondary institutions determine whether they will require the Essay for admission</td>
</tr>
<tr>
<td></td>
<td>» 25 minutes to write the essay</td>
<td>» 50 minutes to write the essay</td>
</tr>
<tr>
<td></td>
<td>» Tests writing skill; students take a position on a presented issue</td>
<td>» Tests reading, analysis, and writing skills; students produce a written analysis of a provided source text</td>
</tr>
<tr>
<td><strong>Score Reporting</strong></td>
<td>» Scale ranging from 600 to 2400</td>
<td>» Scale ranging from 400 to 1600</td>
</tr>
<tr>
<td></td>
<td>» Scale ranging from 200 to 800 for Critical Reading; 200 to 800 for Mathematics; 200 to 800 for Writing</td>
<td>» Scale ranging from 200 to 800 for Evidence-Based Reading and Writing; 200 to 800 for Math; 2 to 8 on each of three dimensions for Essay*</td>
</tr>
<tr>
<td></td>
<td>» Essay results scaled to multiple-choice Writing</td>
<td>» Essay results reported separately</td>
</tr>
<tr>
<td><strong>Subscore Reporting</strong></td>
<td>None</td>
<td>Subscores for every test, providing added insight for students, parents, admission officers, educators, and counselors</td>
</tr>
</tbody>
</table>

*Combined score of two raters, each scoring on a scale of 1 to 4.
E.g., KABC-I
8 subtests
2 factors

Sequential scale
Hand Movements, HM
Number Recall, NR
Word Order, WO

Simultaneous scale
Gestalt Closure, GC
Triangles, Tr
Spatial Memory, SM
Matrix Analogies, MA
Photo Series, PS
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>1. HM</td>
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<td>2. NR</td>
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<td></td>
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<td>3. WO</td>
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<td>—</td>
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<tr>
<td>4. GC</td>
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<td>.16</td>
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<td></td>
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<td></td>
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<tr>
<td>5. Tr</td>
<td>.32</td>
<td>.27</td>
<td>.29</td>
<td>.38</td>
<td>—</td>
<td></td>
<td></td>
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<tr>
<td>6. SM</td>
<td>.40</td>
<td>.29</td>
<td>.28</td>
<td>.30</td>
<td>.47</td>
<td>—</td>
<td></td>
<td></td>
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<tr>
<td>7. MA</td>
<td>.39</td>
<td>.32</td>
<td>.30</td>
<td>.31</td>
<td>.42</td>
<td>.41</td>
<td>—</td>
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<tr>
<td>8. PS</td>
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<td>.29</td>
<td>.37</td>
<td>.42</td>
<td>.58</td>
<td>.51</td>
<td>.42</td>
<td>—</td>
</tr>
</tbody>
</table>
\[ \hat{Y} = 2.5X + 40.0 \]

Given \( X = 17 \), no \( Y \)

\[ \hat{Y} = 82.5 \]

**Confidence intervals**

\[ SE_{est} = f(r_{XY}, SD_Y) \]

\( r_{XY} \downarrow, \ SE_{est} \uparrow, \ CI \leftrightarrow \)

\[ SE_{est} = SD_Y \sqrt{1 - r_{XY}^2} \]

If \( r_{XY} = 1 \), then

\[ SE_{est} = 0 \]

If \( r_{XY} = 0 \), then

\[ SE_{est} = SD_Y \]
E.g., \( r_{XY} = .60, SD_Y = 7.5 \)
\[ \hat{Y} = 82.5 \]

\[ SE_{est} = 7.5 \sqrt{1 - .60^2} = 6.0 \]

95% CI

\[ \hat{Y} \pm SE_{est} (z_\alpha = .05, 2\text{-tail}) \]
\[ 82.5 \pm 6.0 (1.96) \]
\[ 82.5 \pm 11.76 \]
\[ [70.74, 94.26] \]

Jingle
Same name, must be same

Jangle
Different name, must be different
\[ X = t + e \]
\[ X = t' + m + e \]

\( X_1, X_2 \)
Same trait, method
\( r_{12} = .60...? \)

\[ X_1 = t_1' + m + e_1 \]
\[ X_2 = t_2' + m + e_2 \]

\( X_1, X_2 \)
Same trait, \( \Delta \) methods
\( r = .10 \)
\( X_1, X_2 \)
\( \Delta \text{ traits, same method} \)
\( r_{12} = .60... \)

\[
X_1 = t_1' + m + e_1 \\
X_2 = t_2' + m + e_2
\]

\( X_1, X_2 \)
\( \Delta \text{ traits, } \Delta \text{ methods} \)
\( r_{12} = .10 \)

MTMM
\( \geq 4 \text{ tests} \)
\( \geq 2 \text{ traits} \)
\( \geq 2 \text{ methods} \)
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<tr>
<th>Traits</th>
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<th>Observational</th>
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<td>B1</td>
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<tr>
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<td>Worries</td>
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<td>.84</td>
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<tr>
<td>Observational Image</td>
<td>.18</td>
<td>.09</td>
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<td>Worries</td>
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$r_{XX}$
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<td>Worries</td>
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**Convergent**
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<td>Image</td>
<td></td>
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<td></td>
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<td>.82</td>
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Discriminant
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<td>B1</td>
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<tr>
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<td>Image</td>
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<td>.09</td>
</tr>
<tr>
<td>Worries</td>
<td>.17</td>
<td>.60</td>
</tr>
</tbody>
</table>

**Common method**
Items
Rate your success in life

Not at all successful  |  Extremely successful
0  1  2  3  4  5  6  7  8  9  10

Not at all successful  |  Extremely successful
-5  -4  -3  -2  -1  0  1  2  3  4  5
Schwarz et al. (1991)
0 to 10
0 to 5: 30%
Unipolar (S degree)

-5 to 5
-5 to 0: 15%
Bipolar (F to S)

Which of the following describes you best?
a. I am outgoing
b. I work hard
Rank these skills given your expertise:

__ Telephone support
__ Managing time
__ Dealing with complaints
__ Preparing inventory
__ Managing others

Item statistics

Difficulty ($p$)

Discrimination ($D$)

Item-total, $r_{it}$

$s_i^2 = p(1 - p)$

$max \ s_i^2, \ p = .5$
General test
  $p \approx .5$
  $0.3\text{--}0.7$
Symmetrical

Out-of-level
E.g., ↑ 20% selected
  $p \approx .20$
Positive skew

Diagnostic
E.g., ↓ 20% selected
  $p \approx .80$
Negative skew
\[ D = p(U) - p(L) \]

E.g., \( p(U) = 0.65, \ p(L) = 0.25 \)
\[ D = 0.65 - 0.25 = 0.40 \]
Kelley (1939)

\[ U: \uparrow 27\% \]
\[ L: \downarrow 27\% \]
\[ \text{max } s_D^2 \]

Item-total, \( r_{it} \)

Keep \( r_{it} > 0 \)

Drop \( r_{it} < 0 \)

\[ r_{it} > 0 \]
  \[ \uparrow \bar{r}_{ij}, \uparrow \alpha \]
\[ r_{it} < 0 \]
  \[ \downarrow \bar{r}_{ij}, \downarrow \alpha, \text{ maybe } < 0 \]
Write answers in the boxes. No calculators. You may use scratch paper.

1. \(\frac{6\frac{1}{4}}{15\frac{3}{8}} + 4\frac{1}{2}\)

2. Write as a fraction

3. Write as a decimal

4. \(\frac{7}{17} = x\)

5. Multiply \(\frac{15\%}{175}\)

6. Multiply \(\frac{4\%}{60}\)

7. \(1\% + .25 = \sqrt{16} + \sqrt{4} = \)

8. \(\frac{2}{34} = \frac{4}{x - 4} = \frac{x}{b} = 5\), then \(ab^2 = \)

9. Find average:

\[\frac{34 + 16 + 45 + 27}{x} = \]

10. \(\frac{2}{x} = \frac{4}{x} = \)

11. If \(a = -1\) and \(b = 4\), then \((a + b)^2 = \)

12. \[\begin{array}{c|c}
3 & X \\
4 & 3 \\
4 & 5 \\
\end{array}\]

\[\Sigma X + \Sigma Y^2 = \]

13. If \(a = -1\) and \(b = 4\), then \((a + b)^2 = \)

14. \(7 - (6 + 8) = \)

15. Where does the line \(3x - 2y = 12\) cross

the \(x\)-axis?

the \(y\)-axis?

what is the slope of the line?

Number Correct: \[\_\_\_\_\_\]

Percent: \[\_\]
http://www.gnu.org/software/pspp/
RELIABILITY

/VARIABLES= i1 i2 i3 i4 i5 i6 i7 i8 i9 i10 i11 i12 i13 i14 i15a i15b i15c
/MODEL=ALPHA
/SUMMARY = TOTAL.

Case Processing Summary

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<th>%</th>
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<td>99.85</td>
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<td>Total</td>
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Reliability Statistics

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Item-Total Statistics

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<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
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Valid cases = 667; cases with missing value(s) = 1.

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<td>0–39</td>
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IRT/ICC
Tailored testing
Person-level $r_{xx}$
Equate tests, bias

Difficulty
Discrimination
Guessing
Latent trait ($\theta$)
Ability

Intelligence

Fluid

Crystallized

Crystallized Knowledge
Prior learning
Application

Fluid Reason, think, abstract
Discern relations
Independent of learning
<table>
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<td>Visual-spatial</td>
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</tr>
<tr>
<td>Linguistic</td>
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</tr>
<tr>
<td>Logical-mathematical</td>
<td>✓</td>
</tr>
<tr>
<td>Bodily-kinesthetic</td>
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</tr>
<tr>
<td>Musical</td>
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<tr>
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<td>✗</td>
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<tr>
<td>Intrapersonal</td>
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Got   Got   Got   Got
---------
 Hero   Hero

Aid     Aid     Aid     Aid

↑

× 3
IQ referrals
Occupational Neuropsychological Intellectual disability

IQ < 70
Adaptive ↓
Developmental

Special education
Learning disabled
Gifted
Gifted
E.g., IQ > 130
But IQ = 129
IQ = 129,
95% CI [122, 136]

≥ 130 Very superior
120–129 Superior
110–119 High average
90–109 Average
80–89 Low average
70–79 Low
< 70 Very low
Name: Mustermann, Manuela  Geschlecht: ---
Schule: ---  Testort: ---
Klasse: ---  Schulform: ---

A. Berechnung des Lebensalters

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<td>12</td>
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B. Umrechnung der Rohwerte in Wertpunkte

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<th>Rohwert</th>
<th>Wertpunkte</th>
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<td>Gemeinsamkeiten finden</td>
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<td>Zahlen nachsprechen</td>
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<td>Bildkonzepte</td>
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<tr>
<td>Zahlen-Symbol-Test</td>
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</table>

D. Untertest-Wertpunkt-Profil

E. Profil der Index-Werte und des Gesamt-IQ

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<tr>
<th>SV</th>
<th>WLD</th>
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<th>VG</th>
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<td>123</td>
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Deutsche Version hg. von F. Petermann und U. Petermann
WISC-V
6.0–6.11 yrs.
Full Scale (Short)
Primary Index (5)
Ancillary Index (5)
Complementary Index (3)
Full Scale (Short)

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<td>Working</td>
<td>Processing</td>
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<td>Spatial</td>
<td>Reasoning</td>
<td>Memory</td>
<td>Speed</td>
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<td>Coding</td>
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<td>Symbol Search</td>
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<td>Information</td>
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<td>Cancellation</td>
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<tr>
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</table>
Primary (5)
Verbal Comprehension
Fluid Reasoning
Visual-Spatial
Working Memory
Processing Speed
Ancillary (5)
Quantitative Reasoning
Auditory Working Memory
Nonverbal
General Ability
Cognitive Proficiency
Complementary Index (3)
Naming Speed
Symbol Translation
Storage and Retrieval
Cormier et al. (2016)
N = 880 (2,200)
80, 11 age grps.
6-0 to 16-11 yrs.
English
QC, E areas only
No F version

CDN vs. US
$M_{\text{raw}} > M_{\text{raw}}$

CDN examinee
$IQ_{\text{CDN}} < IQ_{\text{US}}$
$\approx 1-4$ pts.
KABC-I
1984, 2.5–12.5 yrs.
Sequential
Simultaneous
MPC
Achievement
Translation
Van de Vijver & Hambleton (1996)
Construct Δs
Examiner
Item (DIF)

Ercikan et al. (2004)
DIF, 18–36% items
40%, translation
30%, curriculum
School
Group (e.g., CAT·4)
Ontario
A learning disorder evident in both academic and social situations that involves one or more of the processes necessary for the proper use of spoken language or the symbols of communication, and that is characterized by a condition that

a. is not primarily the result of
   impairment of vision;
   impairment of hearing;
   physical handicap;
   mental retardation;
   primary emotional disturbance; or
   cultural difference; and

b. results in a significant discrepancy between academic achievement and assessed intellectual ability, with defects in one or more of:

   receptive language (i.e., listening, reading);
   language processing (i.e., thinking, conceptualizing, integrating);
   expressive language (i.e., talking, spelling, writing);
   mathematical computations; and
c. may be associated with one or more conditions diagnosed as:

   a perceptual handicap;
   a brain injury;
   minimal brain dysfunction;
   dyslexia; or
   developmental aphasia.
LEARNING DISABILITIES

LD Defined

A Working Description of Learning Disabilities
Learning Disabilities (LDs) are specific neurological disorders that affect the way a person stores, understands, retrieves and/or communicates information.

READ MORE

Official Definition of Learning Disabilities
Learning Disabilities refer to a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency.

READ MORE

http://www.ldac-acta.ca
Quebec
General (at risk)
E. eligibility (SLD)

At risk
with severe behavioural
with handicap

SLD
Grade – GE
≥ 2 years behind

Other issues
Parent permission
Teacher consultation
Sensory deficit
Family history
IEP
Legal document
Student status, services
Parent approve
Renewal
Bias

Bias types
Content
Predictive
Construct
Language
Wording
Idioms, slang
1) Translate this phrase: “Jet to the Jects.”
   a. Run home
   b. Walk to the store
   c. Go to the house of your significant other
   d. Go to the projects

5) A “blunthead” is a:
   a. Brother or male cousin
   b. Person who is mentally ill
   c. Pencil or pen
   d. Person who smokes a lot of marijuana

6) What is “cakin’ it” ?
   a. Arguing
   b. Making cornbread
   c. Being lovey-dovey with your boyfriend or girlfriend
   d. Making pancakes
8) One of these things is not like the other. Which word is out of place?

   a. Shawdy
   b. Ma
   c. Shorty
   d. Boss

9) Who were the rappers involved in the first and most famous Rap rival?

   a. Jay-Z and Nas
   b. Ja Rule and DMX
   c. Biggie and Tupac
   d. Eminem and Benzino

10) What is “gwap”?

   a. A term used to refer to money
   b. A term used to refer to male genitalia
   c. A term used to refer to nice shoes
   d. Another name for a college or university

13) Being “boo’d up” means that you are:

   a. Cool
   b. Spending time with your boyfriend or girlfriend
   c. Constipated
   d. Being ridiculed in public
RTR = \frac{p_B}{p_A}
Personality

http://www.quackwatch.com
Questionable Products, Services, and Theories

- Acupuncture (updated 1/12/11) FEATURE
- AIDS-Related Quackery and Fraud (updated 12/5/01)
- Algae Products: False Claims and Hype (updated 1/14/07)
- Allergies: Dubious Diagnosis and Treatment (updated 1/17/08)
- "Alternative" and "Complementary" Methods
  - Important Definitions (posted 1/3/01)
  - Be Wary of "Alternative" Health Methods (updated 12/8/14) FEATURE
  - A Special Message to Physicians (to be posted)
  - Miniglossary of "Alternative" Methods (updated 12/31/07)
  - "Alternative Medicine as Self-Care (posted 12/1/00)
  - Commonly Publicized Methods (updated 12/8/99)
  - The Bride of the 'Alternative' Medicine Movement (posted 6/21/01)
  - Science vs "Alternative" Methods (posted 8/22/97)
  - A Public Health Perspective (updated 8/16/99)
  - The Eisenberg Data: Flawed and Deceptive (posted 3/16/02)
  - Why Extraordinary Claims Demand Extraordinary Proof (posted 12/26/98)
  - "Alternative Medicine" and the Psychology of Belief (posted 6/24/01)
- Mental Help, Questionable Approaches
  - Feingold Diet (updated 3/11/02)
  - Nutritional Supplements for Down Syndrome (updated 10/18/98)
  - Orthomolecular Therapy (updated 7/12/00)
  - Procedures to Avoid (updated 11/9/08)
  - Psychomotor Patterning (posted 7/6/01)
  - Psychotherapy Mismanagement (updated 3/22/11)
  - Self-Help Products (updated 8/18/04)
  - Index to Mental Help Topics (updated 2/6/04)
- Metabolic Therapy (posted 7/1/01)
- Multiple Chemical Sensitivity (MCS) (updated 3/18/11)
- Multiple Sclerosis "Cures" (updated 3/28/07)
- Multi-level Marketing: Mostly a Mirage (updated 5/4/14) ALSO VISIT MLM WATCH
- Natural Hygiene: A Critical Look (posted 12/31/07)
- Naturopathy ALSO VISIT NATUROWATCH
  - A Close Look (updated 1/4/12)
  - Opposition to Immunization (posted 12/29/01)
  - HEW Report (1968) (updated 8/30/99)
- Nutrition Insurance: A Skeptical View (posted 12/12/01)
Routine Personality Testing

Personality tests are intended to reveal aspects of a person's view of self and others, along with interpersonal and emotional tendencies. Some psychologists use them routinely as part of their evaluation or treatment methods. However, most psychiatrists and many psychologists believe that the information gained is not cost-effective in terms of time, effort, and fees. **A personality assessment should not be performed unless the assessor has a sound rationale for the instruments used.**

Critics have expressed concerns that: (a) projective tests are unlikely to reveal useful information that is not obtainable by talking with the patient; (b) such may reflect the characteristics of the person who does the scoring rather than those of the person tested; (c) the testing process can convey an incorrect message that the therapist can extract information and provide treatment to a patient who does not participate actively in the treatment process; and (d) there is little research evidence that projective personality testing leads to more accurate diagnosis or better treatment outcomes. A recent review concluded that the Rorschach Inkblot Test, Thematic Apperception Test, Draw-a-Person Test (DAP), Bender-Gestalt Test, Roenzweig Picture-Frustration Study (PFS), and Sentence Completion Test (SCT) are unlikely to contribute information that cannot be obtained from simpler tests or from other sources [25-27].

Stimulation of False Memories

If sexual abuse during childhood is a factor in a person's upset, it is unlikely to be forgotten. However, patients who are suggestible or eager to please their therapist may "remember" childhood events that did not actually take place. Usually it is the therapist who stimulates this process, either deliberately or unwittingly. Occasionally, however, the patient (possibly inspired by a book or television talk show) initiates the problem and the therapist fails to help sort fact from fantasy. Some therapists encourage their patients to confront and possibly sue the alleged perpetrator.
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</table>
“Big 5”
_ Neuroticism
_ Extroversion
_ Openness
_ Agreeableness
_ Conscientiousness

MMPI-2
567 T–F items
Validity scales (3)
Clinical scales (10)

Validity (3)
L, F, K
Clinical (10)
Hypochondriasis, Hs
Depression, D
Hysteria, Hy
Psychopath. Deviate, Pd
Masc./Fem., Mf
Paranoia, Pa
Psychasthenia, Pt
Schizophrenia, Sc
Hypomania, Ma
Social Introversion, Si
MMPI-A
14–18 yrs., 478 items
Validity, clinical scales
Content scales

ANX  Anxiety
OBS  Obsessiveness
DEP  Depression
HEA  Health Concerns
ALN  Alienation
BIZ  Bizarre Mentation
ANG  Anger
CYN  Cynicism
CON  Conduct Problems
LSE  Low Self-Esteem
LAS  Low Aspirations
SOD  Social Discomfort
FAM  Family Problems
SCH  School Problems
TRT  Negative Treatment Indicators
North Dakota Null-Hypothesis Brain Inventory

Answer True or False to the following questions.

1. I salivate at the sight of mittens.
2. If I go into the street, I’m apt to be bitten by a horse.
3. Some people never look at me.
4. Spinach makes me feel alone.
5. My sex life is A-okay.
6. When I look down from a high spot, I want to spit.
7. I like to kill mosquitoes.
8. Cousins are not to be trusted.
9. It makes me embarrassed to fall down.
10. I get nauseous from too much roller skating.
11. I think most people would cry to gain a point.
12. I cannot read or write.
13. I am bored by thoughts of death.
14. I become homicidal when people try to reason with me.
15. I would enjoy the work of a chicken flicker.
16. I am never startled by a fish.
17. My mother’s uncle was a good man.
18. I don’t like it when somebody is rotten.
19. People who break the law are wise guys.
20. I have never gone to pieces over the weekend.
21. I think beavers work too hard.
22. I use shoe polish to excess.
23. God is love.
24. I like mannish children.
25. I have always been disturbed by the sight of Lincoln’s ears.
26. I always let people get ahead of me at swimming pools.
27. Most of the time I go to sleep without saying goodbye.
28. I am not afraid of picking up door knobs.
29. I believe I smell as good as most people.
30. Frantic screams make me nervous.
31. It’s hard for me to say the right thing when I find myself in a room full of mice.
32. I would never tell my nickname in a crisis.
33. A wide necktie is a sign of disease.
34. As a child I was deprived of licorice.
35. I would never shake hands with a gardener.
36. My eyes are always cold.
Ethics
Kaufman (1990)
Agree with model (%)
Experienced, 32
Inexperienced, 35

Range for IQ = 110
Experienced, 107–115
Inexperienced, 108–117
Example of a K-WIIS Report

WISC-III Interpretive Report

Name: Tony                         Date of Evaluation: [omitted]
Date of Birth: [omitted]            Grade: First
Chronological Age: 7 yrs. 6 mos.   Examiner: Kline

Referral Information

Tony was referred for evaluation by his teacher because of learning problems in school and attention and concentration difficulties. The main goals of this evaluation were to answer the following questions: Is Tony in an appropriate classroom setting? Are special education services recommended for Tony? Should Tony be monitored for future developments?

Tony is a Caucasian male, age 7 years and 6 months. The background information presented here about Tony is primarily based on reports from his mother and also from his teacher. Tony's parents immigrated to this country. His parents are bilingual and Italian is spoken in Tony's home. He lives with his biological parents and is the only child in his residence. His family economic status is working class. As a child, his home environment was average, that is, neither impoverished nor enriched. Cultural opportunities at home (e.g., availability of books, family trips to museums) are average, neither inadequate nor excellent. Both Tony's mother and his father graduated from high school.
# WISC-III Psychometric Summary

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<th>C.I.</th>
<th>90%</th>
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<th>Verbal</th>
<th>Scaled</th>
<th>%ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Similarities</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>Comprehension</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>(Digit Span)</td>
<td>5</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Performance</th>
<th>Scaled</th>
<th>%ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture Completion</td>
<td>11</td>
<td>63</td>
</tr>
<tr>
<td>Coding</td>
<td>7-W</td>
<td>16</td>
</tr>
<tr>
<td>Picture Arrangement</td>
<td>18-S</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Block Design</td>
<td>13</td>
<td>84</td>
</tr>
<tr>
<td>Object Assembly</td>
<td>17-S</td>
<td>99</td>
</tr>
<tr>
<td>(Symbol Search)</td>
<td>6-W</td>
<td>9</td>
</tr>
</tbody>
</table>
Tony was given the WISC-III, a test that evaluates the present level of intellectual functioning of children and adolescents. He scored in the Average range of intelligence, earning a Full Scale IQ of 104. Tony's overall performance on the WISC-III ranks him at the 61st percentile relative to other 7-year-olds. The chances are very good (about 19 out of 20) that Tony's true Full Scale IQ is likely to fall between 99 and 109. For Tony, however, the Full Scale IQ is not meaningful because he displayed a striking discrepancy between his verbal and nonverbal intelligence.

Tony's Performance IQ of 121 is significantly and strikingly higher than his Verbal IQ of 88. His High Average to Superior PIQ (92nd percentile), when compared to his Low Average to Average VIQ (21st percentile), suggests that his intelligence on these two scales is inconsistent.

Tony's strikingly lower verbal abilities may be related to his referral for a possible learning problem, bilingual parents, reported weakness in vocabulary and verbal expression, and delayed social development.
Recommendations

Tony has been referred for school learning problems and may require remediation. If so, then the following suggestions may prove beneficial for Tony:

A. Individualize each area of instruction so that Tony is taught at the appropriate readiness level for each different skill.

B. Teach to Tony's tolerance level and avoid pushing beyond. (For example, help teacher pinpoint his threshold level and stay at it.)

C. Begin new tasks only when you know Tony is not tired and is "ready" to learn.
Tony had a weakness in auditory and visual short term memory. To help Tony with his memory problem:

A. Employ distributed review: space out the demands for practice of new skills. This will avoid boredom and fatigue, and provide for overlearning and the development of automatic skills. (This is especially useful for math difficulties and word recognition skills.) Suggest ten 3 minute sessions if a half hour's work is necessary.

B. Provide Tony with a written list of reminders. Tony can check each one that is completed off the list as he goes along.

C. Follow a predictable routine, so Tony won't have to learn new formats for completing work successfully. This will help preset expectations and reduce memory load.

D. Don't accept the excuse of "I forgot" to allow Tony to avoid assigned homework or chores. Have him complete the assignment when reminded.
Assessment in Education
Practical Assessment, Research & Evaluation
Assessment & Evaluation in Higher Education
Educational Assessment
Educational Assessment, Evaluation and Accountability
Educational Evaluation and Policy Analysis
Educational Measurement: Issues and Practice
Journal of Educational Measurement
International Journal of Educational and Psychological Assessment
Educational and Psychological Measurement
Applied Psychological Measurement
Psychometrika
Journal of Technology, Learning and Assessment
Assessing Writing
Language Testing
Language Assessment Quarterly
For more comprehensive listings of qualitative and mixed methods journals, see the listings compiled by St. Louis University, University of North Carolina and Duke University.

<table>
<thead>
<tr>
<th>Journal</th>
<th>Association/Publisher</th>
<th>Scope and Aims (Adapted from journals’ mission statements)</th>
<th>Impact Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Journal of Evaluation</td>
<td>American Evaluation Association/Sage</td>
<td>Explores decisions and challenges related to conceptualizing, designing and conducting evaluations. Offers original articles about the methods, theory, ethics, politics, and practice of evaluation. Features broad, multidisciplinary perspectives on issues in evaluation relevant to education, public administration, behavioral sciences, human services, health sciences, sociology, criminology and other disciplines and professional practice fields.</td>
<td>1.16</td>
</tr>
<tr>
<td>The American Statistician</td>
<td>American Statistical Association</td>
<td>Publishes general-interest articles about current national and international statistical problems and programs, interesting and fun articles of a general nature about statistics and its applications, and the teaching of statistics.</td>
<td>0.98</td>
</tr>
<tr>
<td>Applied Measurement in Education</td>
<td>Taylor &amp; Francis</td>
<td>Because interaction between the domains of research and application is critical to the evaluation and improvement of new educational measurement practices, the journal’s prime objective is to improve communication between academicians and practitioners. To help bridge the gap between theory and practice, articles in this</td>
<td>0.23</td>
</tr>
</tbody>
</table>
Quantitative and Qualitative Methods Doctoral Programs

These are lists of programs located in the United States of America or Canada offering a doctoral degree in quantitative methods. For information on qualitative training programs, see the Society for Qualitative Inquiry in Psychology’s webpages on Graduate Training in Qualitative Methods and Undergraduate Teaching and Curricula.

To learn more about this list visit the FAQs page.

Arizona

Arizona State University
Department of Psychology
PhD, Quantitative Psychology
Program Director: Leon A. Aiken
Phone: (480) 965-7358
Email
Graduate Program Email
School of Social and Family Dynamics
PhD in Family and Human Development, Measurement and Statistical Analysis Specialization
Contact: Roy Levy
Phone: (480) 727-9838
Email

University of Arizona
College of Education
PhD, Concentration in Measurement and Methodology, Educational Psychology
P.O. Box 210069
Tucson, Arizona 85721-0069
Phone: (520) 621-7828
Fax: (520) 621-2909
Email
University of British Columbia
Faculty of Arts
Psychology Department
PhD, MA, Quantitative Methods
Jeremy Brosnan
236 West Mall
Vancouver, BC, Canada, V6T 1Z4
Phone: (604) 822-6493
Email

University of Manitoba
Faculty of Arts
Department of Psychology
Methodology Program
PhD, Methodology
H. J. Keselman
190 Dyer Road
Winnipeg, Manitoba, Canada R3T 2N2
Phone: (204) 474-9360
Email

McGill University
Faculty of Social Sciences
Psychology Department
PhD, Quantitative Psychology and Modeling
Yoshio Telamae
1205 Dr. Penfield Ave.
Montreal, QC, Canada H3A 1B1
Phone: (514) 398-6126
Email

Simon Fraser University
Faculty of Arts and Social Sciences
Psychology Department
PhD, MA, Quantitative Program
Anita Turner, Graduate Advisor
Quantitative Graduate Programme
8888 University Drive
Burnaby, BC Canada V5A 1S6
Phone: (604) 291-4592
Email

University of Western Ontario
Faculty of Social Sciences
Psychology Department
Personality and Measurement Program
PhD in Psychology
Val Van Dornellen, Graduate Secretary
Social Science Centre
London, Ontario, Canada N6A 5C2
Phone: (519) 888-2084
Email

York University
Faculty of Health
Department of Psychology
Methodology (MA, PhD)
go: Michael Friendly
4700 Keele St.
Toronto, ON M3J 1P8
Phone: (416) 736-2000
Email

University of Alberta
Faculty of Education
Department of Educational Psychology
Centre for Research in Applied Measurement and Evaluation
MED and PhD
Director: Dr. Mark J. Gignel
6-10 Education North
Edmonton, Alberta, Canada T6G 2G5
Phone: (780) 492-3752
Fax: (780) 492-0001
Email

University of British Columbia
Faculty of Education
Educational and Counseling Psychology Department
PhD, MA, Measurement, Evaluation and Research
Methodology
Bruno D. Zumbo
Vancouver, BC, Canada, V6T 1Z4
Phone: (604) 822-5630
Email