

school psychology assessment FOCUS

NEWSLETTER • SPRING 2004

INTRODUCING MORE THAN A SCORE—WISC®-IV

The new WISC®-IV is much more than a normative update. Drawing on the latest research, it has been redesigned to improve the assessment of fluid reasoning, working memory, and processing speed. Clinical interpretation is now focused on four index scores, which reflect different abilities important in the expression of intelligent behavior in the classroom and the world at large. The profile of these four abilities represents key clinical indicators of the cognitive strengths and weaknesses considered important to the assessment of learning disabilities, executive functions, attention disorders, traumatic brain injuries, mental retardation, giftedness, and various other medical and neurological concerns.



Standardization

WISC®-IV was standardized on a sample of 2,200 children, 200 children from each age, 6–16. The sample was stratified according to the U.S. Census, to be representative by parent education level, ethnicity, and region. WISC®-IV was linked to WIAT®-II to allow ability achievement comparisons. Large validity samples were also collected with

WAIS®-III, WPPSI™-III, WISC-III®, WASI™, CMS, ABAS®-II, and other measures. Most importantly, data were collected from 16 special groups to provide initial validity for clinical decision making.

Structure

WISC®-IV provides five composite scores, FSIQ and four index scores, derived from ten core subtests; five supplemental subtest are also provided. In addition, WISC®-IV includes a number of process scores which enable a close analysis of specific abilities underlying subtest performance. Supplemental subtests can be substituted when appropriate for core subtests.

The composite scores and their contributing subtests are:

- **Verbal Comprehension Index (VCI)**—Similarities, Vocabulary, and Comprehension (Supplemental: Information, Word Reasoning)
- **Perceptual Reasoning Index (PRI)**—Block Design, Picture Concepts, and Matrix Reasoning (Supplemental: Picture Completion)
- **Working Memory Index (WMI)**—Digit Span and Letter–Number Sequencing (Supplemental: Arithmetic)
- **Processing Speed Index (PSI)**—Coding and Symbol Search (Supplemental: Cancellation)

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COMING
SUMMER 2004

WISC-IV
Integrated

WECHSLER INTELLIGENCE SCALE FOR CHILDREN®
FOURTH EDITION – INTEGRATED

Unleash the diagnostic power of WISC-IV and unlock the potential of the child.

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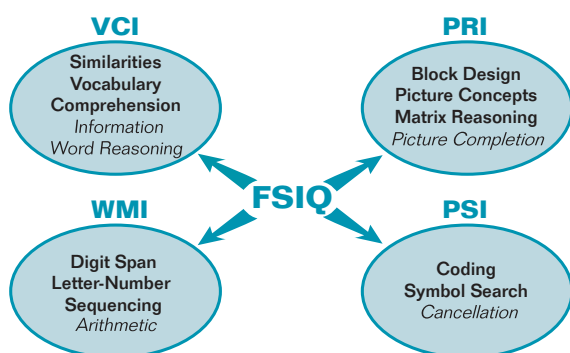


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- **Full Scale IQ (FSIQ)**— All ten core subtests contribute equally to FSIQ.

Four new subtests, Picture Concepts, Letter–Number Sequencing, Matrix Reasoning, and Word Reasoning, were adapted from other Wechsler intelligence scales and were modified specifically for use with school-age children. One new subtest, Cancellation, was developed specifically as a measure of visual selective attention and as a measure of processing speed. The item content, administration procedures, and scoring procedures for the ten subtests retained from WISC–III® were revised for WISC®-IV. These subtests are Block Design, Similarities, Digit Span, Coding, Vocabulary, Comprehension, Symbol Search, Picture Completion, Information, and Arithmetic.

The new composites are described in greater detail below.



Note: Supplemental subtests are shown in italics

WISC®-IV Full Scale IQ

The Full Scale IQ (FSIQ) score is derived from the ten core subtests included in the four indices. This change means that the FSIQ is no longer simply the sum of verbal and performance composites. In keeping with contemporary intelligence research, the FSIQ now includes greater contributions from working memory and information processing speed.

Verbal Comprehension Index

The familiar Verbal IQ (VIQ) and Performance IQ (PIQ) scales were renamed the Verbal Comprehension Index (VCI) and Perceptual Reasoning Index (PRI). They should be substituted for the VIQ and PIQ when making clinical decisions and in other situations where VIQ and PIQ were previously required.

The VCI derives from those subtests that assess verbal reasoning and comprehension. The Information subtest was removed as a core subtest in this composite. The Word Reasoning subtest was developed as a supplemental task to measure higher order verbal reasoning.

Perceptual Reasoning Index

The Perceptual Organization Index in WISC–III® became the Perceptual Reasoning Index in WISC®-IV, reflecting the increased emphasis on fluid reasoning abilities as measured by the new Matrix Reasoning subtest and Picture Concepts subtest. To reduce the impact of speeded performance and motor skill on the performance factor, three traditional performance subtests,

Picture Arrangement, Object Assembly, and Mazes, were not included in WISC®-IV. The emphasis these subtests placed on completion time when assessing perceptual organizational skills and motor skills, with bonus points based on the timed performance, did not fit the new theoretical model. Only Block Design retains time bonuses; otherwise, they have been removed from items frequently administered to younger children. Block Design also includes a new process score that does not include time bonus.

The restructuring of the Perceptual Reasoning Index greatly reduces the dependency on time bonuses outside of the Processing Speed Index. Picture Arrangement, though a fair measure of g, was dropped to reduce administration time and because of questions raised about its use as a measure of social judgment (Beebe, Pfiffner, & McBurnett, 2000; Lipsitz, Dworkin, & Erlenmeyer-Kimling, 1993). Picture Completion was removed from the core to accommodate the new measures of higher order reasoning. In WISC–III®, the performance composite was primarily a measure of perceptual organization, with some elements of fluid reasoning inherent in the tasks. This composite was remade into a measure of fluid reasoning in the perceptual domain for WISC®-IV.

Working Memory Index

The Freedom from Distractibility Index in WISC–III® was renamed Working Memory Index (WMI) to more accurately reflect the nature of the construct measured. Working memory is the ability to hold information in mind temporarily, to perform



some operation or manipulation with the information, and produce a correct result. Contemporary research has shown that working memory is an essential component of fluid reasoning and other higher order cognitive processes and is closely related to achievement and learning (Fry & Hale, 1996; Perlow, Jattuso, & Moore, 1997; Swanson, 1996).

WAIS®-III's Letter–Number Sequencing subtest was adapted for use in WISC®-IV as an improved measure of working memory. The Arithmetic subtest was removed as a core subtest for the WMI because of its dependence on arithmetic knowledge; however, it remains an excellent supplemental measure of working memory for children for whom arithmetic knowledge is not a constraint.

Processing Speed Index

The Processing Speed Index in WISC–III® was retained and now includes Cancellation, a new supplemental subtest. Contemporary research has shown that speed of information processing is dynamically related to mental capacity (Kail & Salthouse, 1994), reading performance and development (Kail & Hall, 1994), and reasoning by the conservation of cognitive

GIFTED RATING SCALES BY DR. STEVE PFEIFFER AND DR. TANIA JAROSEWICH: A NEW TOOL FOR THE IDENTIFICATION OF GIFTEDNESS

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Hundreds of thousands of school-age children in the United States are recommended annually for programs for the gifted and talented. Educators and policymakers recognize that these students, with enriched educational experiences, could be tomorrow's leaders in fields such as business, the arts, education, science, technology, engineering, government, medicine, and law. Standardized objective screening and identification are critical to the identification of these children and the optimal use of additional resources.

Recently the federal government has established general guidelines that have been adapted by most states, but these are still quite general leaving much room for variable interpretation across states and educational settings. The majority of states have adopted some version of the 1978 modification of the 1972 federal definition, known as the Marland definition (Ross, 1993; Stephens and Kerns, 2000). Even with standardizing the definition and standardization of gifted children, nominations continue to come from a variety of sources, are subject to a variety of factors, and result in screening practices which are unnecessarily costly or subject to criticism.

Authors Steve Pfeiffer and Tania Jarosewich have addressed these difficulties by developing the *Gifted Rating Scales* (GRS), drawing on their experience working with the Talent Identification Program (TIP) at Duke University. Dr. Pfeiffer has served as Director of this program for five years. Drs. Pfeiffer and Jarosewich have also consulted with many experts in the field of giftedness as well as many teachers.

The GRS includes a Preschool/Kindergarten Form (GRS-P) for ages 4:0 to 6:11 and a School Form (GRS-S) for ages 6:00 to 13:11 in grades 1 through 8. The GRS-P includes five scales with 12 items in each for a total of 60 items; the GRS-S includes six scales with 12 items in each for a total of 72 items. Both forms are four pages long, compactly organized on two sheets. Although the GRS-P and GRS-S are similar in format, item overlap is only 29 percent. The items of the GRS-P represent skills or behaviors developmentally appropriate for preschool and kindergarten students, while the items on the GRS-S reflect more developmentally advanced skills or behaviors. The GRS-S form includes a sixth, Leadership Scale. Both forms yield raw score totals on all scales, which are converted to age-based *T* scores and associated cumulative percentages. The first page of each form provides a chart where the child's profile of overall giftedness may be plotted for easy viewing and interpretation.



- Both scales are presented in compact easy-to-use record forms that take approximately 5 minutes to complete.
- The GRS conceptualizes giftedness in a straightforward, direct, and meaningful way. It provides an interpretative framework that simplifies the identification of gifted children.
- The test provides a standardized method for identifying children for gifted and talented programs based on teacher observations.
- *T* scores are based on representative national samples stratified to match the 2000 US census.
- GRS allows for identification of specific areas of giftedness.
- It provides specific behavioral guidelines for identification of giftedness within each domain.
- A visual profile of giftedness allows for the identification of primary and secondary strengths.
- GRS-P was developed along with the standardization of the *Wechsler Preschool and Primary Scale of Intelligence*®—Third Edition (WPPSI®-III).
- GRS-S was developed along with the standardization of the *Wechsler Intelligence Scale for Children*®—Fourth Edition (WISC®-IV).
- The *Wechsler Individual Achievement Test* — Second Edition (WIAT-II) provided validity evidence for the Academic Ability Scale of both GRS-P and GRS-S.

Both forms of the GRS incorporate a multi-dimensional model of giftedness, measuring intellectual ability, academic ability, creativity, artistic talent, and motivation. The GRS-S for school-age children includes a leadership scale, a psychosocial form of giftedness that becomes increasingly important with age. Below are brief descriptions of the scales included on both forms.

Intellectual Ability refers to the student's verbal and/or nonverbal mental skills, capabilities, or intellectual competence. Aspects of intelligence measured by this scale include abstract reasoning, problem solving, mental speed, and memory.

Academic Ability refers to the student's skill in dealing with reading, math, and other aspects of the school curriculum. Talent is indicated by the facility in acquiring new knowledge and skills and the ability to understand complex material. Students who are academically gifted often have large stores of information including broad knowledge of the world around them.

Creativity refers to the student's ability to think, act, and/or produce unique, original, novel or innovative thoughts or products. Creativity can be expressed in a variety of ways: how a student solves problems, experiments with new ideas, formulates a solution to a group project, and/or uses imagination. Creative students are inventive, curious, and inquisitive. They show a preference for challenge and complexity and engage in problem solving that is insightful and creative.

Artistic Talent refers to the student's potential for, or evidence of, ability in drama, music, dance, drawing, painting, sculpture, singing, playing a musical instrument, and/or acting. Artistic talent can be expressed in a variety of ways: how a student approaches activities, completes assignments, and/or uses art supplies or artistic media. Artistically gifted students learn artistic skills quickly and exhibit more technical sophistication.

Leadership Ability refers to the student's ability to motivate others toward a common or shared goal. Leaders understand and monitor social dynamics and have strong interpersonal communication and conflict resolution skills. They effectively orchestrate collective action and influence group behavior.

Leaders exhibit strong social judgment and prosocial values such as integrity and trustworthiness. Leaders have the drive to lead and take initiative.

Motivation refers to the student's drive or persistence, desire to succeed, tendency to enjoy challenging tasks, and ability to work well without encouragement or reinforcement. Motivation is not viewed as a type of giftedness; rather, motivation is the energy that drives or impels a student to achieve. Motivation can be observed in a variety of contexts, such as when working on academic tasks or artistic endeavors or leading a group activity.

Both samples were stratified to match the U.S. census by ethnicity and by parent education level to ensure representative proportions of children according to each selected demographic variable. Census data gathered between 1999 and 2000 by the U.S. Bureau of the Census provided the basis for stratification within each age group. Each age band was split by gender. In addition, schools and students were selected from the four census regions of the United States roughly proportional to their relative populations.

Examination of the correlations between GRS scale scores and scale scores on the WPPSI-III and WISC-IV reveal overall convergent validity for the Intellectual scale. Examination of the correlations with the WIAT-II scores across forms of the GRS suggests that teachers' observations on Academic Ability are correlated with the WIAT-II scale scores.

REFERENCES

- ROSS, P.O. (1993). NATIONAL EXCELLENCE: A CASE FOR DEVELOPING AMERICA'S TALENT. WASHINGTON, D.C.: U.S. DEPARTMENT OF EDUCATIONAL RESEARCH AND IMPROVEMENT.
- STEPHENS K.R. & KERNS F.A. (2000). STATE DEFINITIONS FOR THE GIFTED AND TALENTED REVISITED. *EXCEPTIONAL CHILDREN*, 66(2), 219-238.

REYNOLDS BULLY VICTIMIZATION™ SCALES FOR SCHOOLS™

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How safe are schools? Which students are at risk for bullying behavior? Which students are at risk for victimization? Which students are at risk for both? Among students who are victimized, how distressed are they? Are they internalizing their distress as depression and anxiety, or are they externalizing their distress by acting out or planning their revenge? Are students afraid for their safety at school even though they are not being victimized or engaging in bullying behavior themselves? William M. Reynolds, Ph.D., psychologist and noted author of many assessment tools for children and adolescents had these and other questions in mind when he developed the *Reynolds Bully Victimization Scales for Schools*.

This suite of scales consists of three self-report instruments each addressing a different aspect of the school violence phenomenon. The *Reynolds Bully Victimization Scale (BVS)* addresses the frequency of the specific bullying behaviors and experiences of bully victimization. The *Bully-Victimization Distress Scale (BVDS)* addresses the degree of internalizing and

externalizing distress experienced by a child as a result of being bullied. The *School Violence Anxiety Scale (SVAS)* addresses more generalized concerns for one's safety at school, which might be due to perceived threat as well as to experiences that have already occurred. Taken together these scales represent a comprehensive picture of the child's experience of peer-related aggression or distress.

Background

A number of extreme occurrences of violence, such as the shootings in Littleton, Colorado, and in Springfield, Oregon, have galvanized the nation into recognition of the problem of school violence. There has been an increased recognition by schools of the pervasiveness and problematic nature of school violence, after many years of relatively passive attitudes (Furlong & Morrison, 2000). Consequently, federal mandates have emerged to reduce the level of violence in schools and to make schools a safe environment for students. For example, Title 4 of

the *Improving America's Schools Act* of 1994 (P.L. 94-103, HR 6), also known as the Safe and Drug-Free Schools and Communities Act of 1994, sought to meet the goal of violence-free schools by the year 2000. Unfortunately, the problem of violence in schools, including that against children appears to be unabated. Increased prevalence of public incidents of violence in the schools has highlighted the problematic phenomena of bullying and victimization that frequently are associated with these incidents. In spite of increasing need, there are few if any instruments available to help quantify or benchmark the severity of the problem for individual children or for various school environments. Therefore understanding of violence in schools is retrospective, after the violence has already occurred.

How violent are schools?

In a national sample of over 13,000 adolescents, 33.2% of respondents reported being in a physical fight one or more times in the previous year, including 43% of boys and 24% of girls. This was reported by the Centers for Disease Control and Prevention in their 2001 Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 2002). One out of 8 students had physical fights on school property. The CDCP also reported that in the 30 days prior to the survey, approximately 1 in 10 boys and 1 in 30 girls had carried a weapon, such as a gun, knife or club to school. In the 12 months preceding the survey, 1 in 11 adolescents had been either threatened or injured with a weapon at school, including 1 in 9 boys and 1 in 15 girls. Although not all schools may be considered violent environments for youth, the CDCP data suggest that schools are often a violent setting for young people. It would also be incorrect to state that school violence only affects a small proportion of the school population, when 43% of males and 24% of females in high schools surveyed by the Centers for Disease Control and Prevention reported being in a physical fight at least once in the previous 12 months (Centers for Disease Control and Prevention, 2002). It should also be noted that the level of violence in alternative high schools is significantly higher, with the CDCP (1999) reporting that 67% of males and 50% of females in a national sample of 8,918 adolescents in alternative schools indicated they were in a physical fight in the previous 12 months.

Reynolds Bully Victimization Scales for Schools

These three self-report measures are nationally standardized instruments for school-aged children and adolescents, each taking 5 to 10 minutes to complete. As a combined battery they

form a comprehensive picture of a child's experience of peer-related aggression, level of distress, and anxiety about school violence. Results can provide benchmarks for identifying a child for intervention, or for identifying what students perceive as a threatening or unsafe school environment. Use of the scales as screeners can help school districts target groups for special intervention and monitoring. These scales are also appropriate for use in the evaluation of safe schools violence intervention and prevention programs.

The Bully Victimization Scale (BVS) is a brief measure for grades 3–12 that evaluates the severity of bullying and bully victimization experiences and addresses the frequency of the specific behaviors. The BVS provides for the identification of youngsters who are being bullied and students

who engage in bullying behavior. The BVS may be used individually and as a school-based screening measure for the identification of bullies and bully-victims.

The Bully-Victimization Distress Scale (BVDS), designed for students in grades 3–12, is designed to measure students' psychological response to bullying in terms of externalizing distress and internalizing distress. The BVDS consists of two scales, the Externalizing Distress Scale and the Internalizing Distress Scale and provides the BVDS Total Scale score. These scales are designed to evaluate dimensions of students' psychological distress specific to being bullied. A child's or adolescent's response to being bullied can vary from mild, transient discomfort to extreme distress. It is this distress response that is evaluated by the BVDS. The form

that this response takes may differ from child to child. In some children and adolescents, it may be expressed by fearfulness or sadness; in others, by anger or aggression; and in some, both internalizing and externalizing symptoms of distress. Internalizing of distress in response to bullying may be more difficult to identify without the use of assessment tools such as the BVDS.

The School Violence Anxiety Scale (SVAS) is a measure of anxiety specific to students' perception of school violence and safety, evaluating the physiological, cognitive, and emotional components of anxiety. Designed for students in grade 5–12, the SVAS provides information about the students' perception of school as a safe or threatening environment.

The use of the RBVSS as screening measures may assist in the creation of safe schools by identifying youngsters who bully as well as their victims who often feel distressed, disenfranchised, and alienated from school.

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REFERENCES

FURLONG, M.J. & MORRISON, G (2000). THE SCHOOL IN SCHOOL VIOLENCE : DEFINITIONS AND FACTS. *JOURNAL OF EMOTIONAL & BEHAVIORAL DISORDERS*.
CENTERS FOR DISEASE CONTROL (1999). YOUTH RISK BEHAVIOR SURVEILLANCE-NATIONAL ALTERNATIVE HIGH SCHOOL YOUTH AT RISK BEHAVIOR SURVEY, UNITED STATES, 1998. *MORBIDITY AND MORTALITY WEEKLY REPORT*, 48, (SS-07) 1-44. RETRIEVED MARCH 8 2003, FROM *CENTERS FOR DISEASE CONTROL* WEB SITE: [HTTP://WWW.CDC.GOV/MMWR/PREVIEW/MMWRHTML/SS4807A 1](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4807a1).
CENTERS FOR DISEASE CONTROL (2002). YOUTH RISK BEHAVIOR SURVEILLANCE-NATIONAL ALTERNATIVE HIGH SCHOOL YOUTH AT RISK BEHAVIOR SURVEY, UNITED STATES, 2001. *MORBIDITY AND MORTALITY WEEKLY REPORT*, 51, (SS-07) 1-44. RETRIEVED MARCH 15 2003, FROM [HTTP://WWW.CDC.GOV/MMWR](http://www.cdc.gov/mmwr).

A TEST FOR ASSESSMENT OF DIVERSE POPULATIONS

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Assessment of Diverse Populations

The characteristics of the U.S. population are changing rapidly. The country has become more diverse, increasing the need to fairly assess children from a wide variety of backgrounds, including those with limited English language skills. For the culturally and linguistically diverse populations, tests of ability that contain verbal and quantitative questions have limited value because they can lead to an underestimation of the child's level of general ability. In comparison, nonverbal tests are minimally influenced by cultural and linguistic factors. The value a nonverbal test has for evaluation of diverse populations was noted more than 80 years ago by Yoakam and Yerkes (1920) when they wrote that people can fail verbal tests because of relative unfamiliarity with English and that nonverbal tests allow for better assessment of general ability in such cases.

What Is a Nonverbal Test of General Ability?

General ability is assessed using a variety of different tasks. Usually, general ability is measured using verbal, nonverbal, and sometimes quantitative tasks. The variety in the type of task used to measure general ability can help maintain interest but it can also lead to difficulties. If a child does not have good English language and/or quantitative skills, verbal and quantitative tasks can pose a formidable challenge and lead to inaccurate estimates of general ability. It is important to recognize that tests of general ability have traditionally been composed of verbal, nonverbal, and quantitative tasks or subtests. These different types of subtests are not intended to measure different abilities, but rather they are different ways of measuring general ability. Verbal (e.g., Vocabulary and Similarities) and

quantitative (e.g., Arithmetic) subtests provide ways of measuring how well a child can reason with words and numbers, for example, which is used to evaluate general ability.

It is important to remember that verbal and nonverbal refers to the content of the test items not the type of ability required.

Tests of general ability typically come in two types. First, there are those that contain verbal, nonverbal, and quantitative tasks, like the Wechsler scales. Second, there are those that contain nonverbal tasks like the *Raven Progressive Matrices* (Raven, J., Raven, J.C., & Court, J.H., 1998) and the *Naglieri Nonverbal Ability Test®-Individual Administration* (NNAT-I, Naglieri, 2003).

NNAT-I is a test of general ability that uses the progressive matrix format. The test has two 72-item Forms (A and B), each of which yields a total test standard score with a mean of 100 and standard deviation set at 15.

Standardization. NNAT-I was normed on a sample of 1,585 students, stratified to be representative of the U.S. population on the basis of age, gender, race/ethnicity, geographic region, and parental education level. The standardization sample included children in public and private schools. It closely matches the target population (for more details see Naglieri, 2003).

Children who were receiving special educational services because of learning disability or speech, language, motor, and hearing impairments were included in special validity studies.

Administration. Both Forms A and B of NNAT-I are administered using simple, concise verbal directions. Basal and ceiling rules and start points based on the age of the child allow for efficient administration of the most appropriate items. Testing time is approximately 25 to 30 minutes.



Scoring. NNAT–I is easily scored by converting the sum of the raw scores to a standard score (mean of 100, standard deviation of 15) based upon the form given. Confidence intervals are provided at both the 90% and 95% level of significance. All standard scores can be further described as percentile ranks and age equivalents.

Reliability. Internal consistency coefficients (Cronbach alpha) are reported for the normative sample of 1,585 students for each of the 12 age levels. Alpha coefficients for NNAT–I range from a low of .88 to a high of .95. The average across the ages is .91.

Interpretation. Interpretation of NNAT–I is focused on the total test standard score because it provides the best estimate of a child’s general ability measured nonverbally. This score has the greatest reliability and validity and should be utilized, like any score, within the context of additional information about a child. NNAT–I also provides a two page Parent Report Form on which the examiner can record information about the child’s NNAT–I score. The form includes ability categories (e.g., Low Average, Average), standard scores, and percentile scores plainly marked on a normal curve, a written description of the purpose of the test and how it should be used, as well as two sample items.

Validity. There are 14 validity studies reported with NNAT–I, including race/ethnicity comparisons, comparisons to other measures, comparisons with Spanish instructions, and performance by individuals in special populations.

When Should NNAT–I Be Used?

Knowledge of a child’s ability obtained using a nonverbal test allows professionals to evaluate general ability with a minimal impact of language and achievement. This provides fair assessment of diverse populations and utility in a wide variety of settings. The utility of NNAT–I for use with diverse populations is augmented by research on the NNAT–*Multilevel Form* (Naglieri, 1997) that has been shown to also yield small race and ethnic differences (Naglieri & Ronning, 2000; Naglieri & Ford, 2003).

Fair Assessment

The nonverbal assessment of ability constitutes sound professional practice for those who work with diverse populations, but particularly gifted children from disadvantaged backgrounds. In fact, Naglieri and Ford (2003) demonstrated that the NNAT–*Multilevel Form* is very effective in identification of gifted minority children and that through the use of this test similar proportions of White, Black, and Hispanic children were identified. NNAT–I can similarly be used as part of an individual assessment for identification of gifted minority children. Nonverbal assessment using NNAT–I is appropriate for a wide variety of children including those with hearing impairments, language disorders, communication difficulties, and motor problems.

Summary

NNAT–I is an effective way to measure general ability nonverbally for a wide variety of children and adolescents in a time-efficient manner. When used in conjunction with other information, NNAT–I will provide important information that will help practitioners make informed decisions for the benefit of a wide variety of children and adolescents.

REFERENCES

- NAGLIERI, J. A. (1997). NAGLIERI NONVERBAL ABILITY TEST–MULTILEVEL FORM. SAN ANTONIO: HARCOURT ASSESSMENT, INC.
- NAGLIERI, J. A. (2003). NAGLIERI NONVERBAL ABILITY TEST–INDIVIDUAL ADMINISTRATION. SAN ANTONIO: HARCOURT ASSESSMENT, INC.
- NAGLIERI, J., & FORD, D. Y. (2003). ADDRESSING UNDER-REPRESENTATION OF GIFTED MINORITY CHILDREN USING THE NAGLIERI NONVERBAL ABILITY TEST (NNAT). *GIFTED CHILD QUARTERLY*, 47, 155-170.
- NAGLIERI, J. A., & RONNING, M. E. (2000). COMPARISON OF WHITE, AFRICAN-AMERICAN, HISPANIC, AND ASIAN CHILDREN ON THE NAGLIERI NONVERBAL ABILITY TEST. *PSYCHOLOGICAL ASSESSMENT*, 12, 328-334.
- RAVEN, J., RAVEN, J.C., & COURT, J.H. (1998)
- YOAKUM, C.S., & YERKES, R.M. (1920). *ARMY MENTAL TESTS*. NEW YORK: HOLT.

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resources and the efficient use of working memory space used for higher order fluid tasks (Fry & Hale, 1996; Kail, 2000).

Summary

This article represents only the briefest summary. Detailed information on the new subtests, process scores, reliability, and clinical validity results can be found in a series of technical reports available at www.wisc-iv.com. This web site will be updated with the latest research on WISC–IV, training materials, and answers to frequently asked questions.

REFERENCES

- BEEBE, D. W., PFIFFNER, L. J., & MCBURNETT, K. (2000). EVALUATION OF THE VALIDITY OF THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN–THIRD EDITION COMPREHENSION AND PICTURE ARRANGEMENT SUBTESTS AS MEASURES OF SOCIAL INTELLIGENCE. *PSYCHOLOGICAL ASSESSMENT* 12(1), 97–101.
- FRY, A. F., & HALE, S. (1996). PROCESSING SPEED, WORKING MEMORY AND FLUID INTELLIGENCE: EVIDENCE FOR A DEVELOPMENTAL CASCADE. *PSYCHOLOGICAL SCIENCE*, 7(4), 237–241.
- KAIL, R. (2000). SPEED OF INFORMATION PROCESSING: DEVELOPMENTAL CHANGE AND LINKS TO INTELLIGENCE. *JOURNAL OF SCHOOL PSYCHOLOGY*, 38(1), 51–61.
- KAIL, R., & HALL, L.K. (1994). PROCESSING SPEED, NAMING SPEED, AND READING. *DEVELOPMENTAL PSYCHOLOGY* 30(6), 949–954.
- KAIL, R., & SALTHOUSE, T. A. (1994). PROCESSING SPEED AS A MENTAL CAPACITY. *ACTA PSYCHOLOGICA* 86, 199–225.
- LIPSITZ, J. D., DWORKIN, R. H., & ERLMMEYER-KIMLING, L. (1993). WECHSLER COMPREHENSION AND PICTURE ARRANGEMENT SUBTESTS AND SOCIAL ADJUSTMENT. *PSYCHOLOGICAL ASSESSMENT*, 5(4), 430–437.
- PERLOW, R., JATTUSO, M., & MOORE, D. D. (1997). ROLE OF VERBAL WORKING MEMORY IN COMPLEX SKILL ACQUISITION. *HUMAN PERFORMANCE*, 10(3), 283–302.
- SWANSON, H. L. (1996). INDIVIDUAL AND AGE-RELATED DIFFERENCES IN CHILDREN’S WORKING MEMORY. *MEMORY AND COGNITION*. 24(1), 70–82.

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