

1-2-3 TESTING

Kathy Williams

California Association of Child Care Workers, San Diego, CA

A major job responsibility of Child Care Workers is to become as familiar as possible with a child's background and current level of functioning. Prior to or soon after a child is placed in care, we examine his or her file. We want to explore every avenue. To not know about a child's family background and past school experience is unimaginable. But often our efforts to fully understand a case record are hindered by the inability to interpret evaluations and test results. Psychological evaluations fall into this category.

Few Child Care Workers have had experience with psychological testing. Often the names of the tests are familiar but not the purpose or format. Evaluations list the tests administered and the results. But how did a psychologist who has just met and spent only a few hours with the child come to valid conclusions? How are certain conclusions made and what do they mean? Taken by itself, the concept "visual-motor coordination" is not hard to comprehend, but sometimes when seeing the words along with "perceptual," "conception," "long-term," "short-term," "eye-hand," "fine motor," "auditory," and "discriminatory," it is easy not to deal with the words and their meaning. The recommendations seem to make much more sense but often do not detail all the results of the individual tests. Learning about a child from experience on the unit can often lead to the same conclusions, but why wait two months to find out that a certain child learns more easily through seeing than through hearing? Two months of telling the child how to do something may have possibly been accomplished in two weeks of showing him.

Psychological Tests

A psychological test is a scientific instrument defined as a standardized measure of a sample of behavior. A test has "standard operating procedures" which are not departed from just as a chemist does not alter his procedures in making an analysis of a solution (Moriarty, 1980). There are standards for administration (i.e., time limits), scoring, and interpretation. Psychological tests have been tested themselves for validity and reliability. An example of validity is how well a certain test or part of a test measures a child's ability to remember

details over a long period of time. Reliability is how consistently the same child scores when retested with the same test.

Psychological tests are excellent aids. They provide a more clear picture of the child, help move the child more quickly from referral to discharge, and assist in developing a more individualized program for the child (Moriarty, 1980).

The Tests

Only a few of the common tests administered will be discussed here. There is a wide selection of tests available and their uses vary according to the person administering the test—his/her preferences and professional experience. Also, a determination of what tests are to be used is made through knowing the special needs or problems of the child to be tested. Space does not allow for an extensive review of any one test in this discussion, but a demonstration or written review of the test could be very beneficial for the child care worker to investigate. Rarely are the tasks involved in any of the tests extensive or incomprehensible. By being able to visualize the tasks, one may have a better understanding of the test results and write-up.

Intelligence Tests

The purpose of the intelligence test is to provide an individual's general intellectual level. "The concept of intelligence is as hard to define as it is important. The concept of intelligence is really a hodge-podge concept. It includes things like the ability to think and plan ahead, the ability to learn, the ability to concentrate, etc. So, it is clear that the notion of intelligence doesn't refer to any one single ability or even sets of abilities. Rather, it refers to a broad range of abilities" (Moriarty, 1980, p. 105-5).

An intelligence quotient (IQ) is commonly what is arrived at by intelligence testing, with average IQ being 100. This IQ is important because research has consistently shown that the higher the IQ, the higher the level of functioning. Also some intelligence tests measure the mental age of the child.

The Wechsler Intelligence Scale for Children Revised (WISC-R) The WISC-R is probably the most popular and comprehensive intelligence test. It is used for children ages 5 to 16 years, 11 months and 30 days. The Wechsler Adult Intelligence Scale (WAIS) is used for persons 16 years and older.

Twelve subtests are included in the WISC-R with two of the subtests, digit span and mazes, being optional in use. As seen in the chart

below each subtest measures specific abilities, six related to verbal intelligence and six to nonverbal (performance) intelligence.

Verbal Scales	Major Function Measured
Information	Range of knowledge
Comprehension	Judgment
Arithmetic	Concentration
Similarities	Abstract thinking
Vocabulary	Vocabulary level
Digit span	Immediate memory, anxiety
Performance Scales	Major Function Measured
Picture completion	Alertness to detail
Picture arrangement	Planning Ability
Block design	Nonverbal reasoning
Object assembly	Analysis of part-whole relationship
Coding	Visual-motor functioning
Mazes	Planning ability and general intelligence

(Kaplan and Saccuzzo, 1983)

After all subtests have been administered, the results are compiled to formulate a Verbal IQ and a Performance IQ which are integrated into a Full Scale IQ. Information about the child, deficits, and strengths, can be found in each of the subtests separately as well as through the Verbal, Performance and Full Scale IQ. Generally, a scoring difference of 15 points (one standard deviation) or more leads the tester to investigate the discrepancy. Discrepancies between the Verbal and Performance IQs may be the result of language, cultural or educational factors, emotional problems or brain damage (Kaplan and Saccuzzo, 1983.)

The Peabody Picture Vocabulary Test (PPVT) The PPVT is a non-verbal intelligence test designed for those who cannot read or write or those who do not perform well on tests for emotional, cultural, physical or intellectual reasons (Botterbursch, 1978). The test is made up of a series of 175 plates with each containing 4 pictures. The tester says a word and the child responds by pointing to the appropriate picture depicting the word. It can be used for preschool children as well as adults. The PPVT is an untimed test, but usually takes about 10-20 minutes to administer. An IQ as well as a mental age can be determined from the results of this test.

Projective Tests

Generally projective tests are better defined as techniques or tools. They are not truly tests because they have failed to satisfy the standards required of a test (i.e., standardization of administration and scoring procedures, reliability and validity) (Anastasi, 1982 and Di Leo, 1983). These tests are nonobjective and unstructured but provide a wide range of information because they encourage the child to project his/her thought processes, needs, anxieties and conflicts (Anastasi, 1982).

The Rorschach Inkblot Test The Rorschach Inkblot Test is a very popular projective technique. It presents 10 inkblots on separate cards. The child is asked what each design could represent. The tester keeps a verbatim record of the child's responses, noting the time of response, the position the cards are held, spontaneous remarks, emotional expressions and other observed behavior. After all 10 cards have been shown, the child has a chance to clarify or elaborate his/her responses. Each response is scored on location, determinants, content and a popularity score. This test is extremely difficult to score due to the large number of responses given by the child (Anastasi, 1982).

Thematic Apperception Test (TAT) The TAT contains 19 cards depicting vague pictures in black and white and 1 blank card. The child is asked "to make up a story to fit each picture, telling what is happening at the moment, what characters are feeling and thinking and giving the outcome" (Anastasi, 1982, p. 571-2). Although there are 20 cards in this test most testers use only 10 of them. After each card has been viewed the contents are analyzed by determining who the child is identifying with and what needs are being met or unmet in each story.

For children 3-10 years old, the Children's Apperception Test may be administered. The test differs from the TAT in that each picture is substituted with animals in human situations.

Draw A Person (D-A-P) The child, in this test, is asked to draw a person, then to draw a person of the opposite sex. After the pictures are completed he/she is asked to make up a story about each person. The contents are analyzed by their placement on the page (e.g., upper half of page meaning optimism or right side, emotionalism), the details of the people (e.g., do they have no hands which could mean a lack of confidence), the consistency of the lines and shading. Age and the child's developmental stage are very significant in analyzing the contents. Generally, a child draws an adult figure rather than him/herself and their own sex first. Girls approaching adolescence often tend to draw the opposite sex first (Di Leo, 1983).

The House-Tree-Person Test (H-T-P) Trees tend to be less threatening to a child than a person. Their projective use is based on the assumption that trees are unconscious self-portraits of the child (Di Leo, 1983). The child is asked to draw a house, a tree, and a person in that order. The house represents affection and security; the tree, growth; and the person, personality. As with the D-A-P the placement on the page, details, lines and shading are analyzed. Details such as fruit on a tree can be very significant. It is normal added to a tree drawn by a 10 year old, but would be viewed as very childish on a drawing done by a 14 year old. The size of the person in comparison to the house and tree is also a significant detail analyzed.

The Kinetic Family Drawing (K-F-D) In the K-F-D test the child is asked to draw a picture of his/her family including his/herself with each member of the family involved in an activity. This test not only includes the child's family members but is significant in that when a child draws a person, he/she is drawing what the child knows intellectually. When the family is drawn, the child is drawing what is emotionally felt (Di Leo, 1983). Details are analyzed by what each family member is doing (are they working together or watching TV), where the child has placed him/herself and what is the spacing between each family member (have they been compartmentalized by furniture or lines).

Other Tests

The Wide Range Achievement Test (WRAT) The WRAT is a rapid screening instrument used to measure achievement in reading, spelling and arithmetic. The reading section tests the ability of the child to recognize and name letters and to pronounce words; spelling, the ability to copy marks resembling letters, writing the name and writing single words to dictation; and arithmetic, the ability to count, read number symbols, solve oral problems and perform written computation.

The WRAT can be administered in 20 to 45 minutes and determines the grade level of the child in three achievement areas.

The Bender Visual Motor Gestalt Test (Bender Gestalt) The Bender Gestalt test is used primarily for the detection of brain damage. It has also been found useful in assessing school readiness and predicting education achievement in the first grade as well as with the mentally retarded as a measure of intellectual level and a predictor of academic achievement. Nine simple designs are presented to the child, one at a time. The child is asked to copy each design. Their performance is independent of their drawing ability and significantly related to the amount of education of the child (Anastasi, 1982).

The Evaluation

Testing is only a part of the psychological evaluation. Not all evaluations are as extensive as others but many include: the reason for referral, background of the child, a clinical interview, behavioral observations, a list of the test administered, test results, a summary, and recommendations. The tester's role can be described as that of a data gatherer and data synthesizer. Information compiled beforehand from the case history, social workers, teachers, child care workers, etc., plus pertinent facts elicited from the child during the testing process help guide the tester in making certain hypotheses about the child. By further gathering or examining additional pertinent data, these hypotheses are strengthened, modified, or discarded (Anastasi, 1982).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-III)

One section of the psychological evaluation not previously mentioned could include the "Diagnostic Impression." An entire paper could easily be written about the highlights of the DSM-III which the Child Care Worker would find very enlightening.

Each axis has a purpose. The DSM-III describes the axes:

Axis I – Clinical syndromes

Conditions not attributable to Mental Disorder that are a focus of attention or treatment

Additional codes

Axis II – Personality Disorders

Specific Developmental Disorders

Axis III – Physical Disorders and Conditions

Axis IV – Severity of Psychosocial Stressors

Axis V – Highest Level of Adaptive Function Past Year (APA, 1980)

Axes I, II, and III are listed by codes, each of which are fully explained in the DSM-III. For children, the Axis II would be concentrated on the "Specific Developmental Disorders." Ordinarily children are not classified as having "Personality Disorders." Axes IV and V are stated in numbers spanning the degrees of severity. "1" of Axis IV is no psychological stressors; "4" being moderate (e.g., chronic parental fighting); "7" catastrophic (e.g., multiple family deaths), and "8" unspecified. These stressors are ones that have occurred within one year prior to the current disorder or the anticipation of a future event. Axis V is used under the assumption that the child will return to his/her previous level of functioning after an episode of illness. "1" is superior (e.g., does all things with ease and comfort); "4" fair (e.g., poor in school but adequate with family and peers); "7" grossly impaired (e.g., lacking in controls and skills), and "8" unspecified (i.e., no information) (APA, 1980).

Using the Evaluations

So, how can the evaluation be used by the Child Care Worker in the milieu? Many of the children in treatment have listed as one of their major goals "improvement of self-esteem." This is such a global statement and can be accomplished in many ways. Making a child's experiences successful is certainly the most direct method. By heeding the recommendations and the conclusions of the test results, a Child Care Worker can plan techniques to set the child up for success. Examining the child's strengths and emphasizing them is one way of accomplishing this. For example, if a child has the capability to think abstractly, benefit can be gained from having the child explore how the present situation, possible problems with peer interactions, is similar to or different from past experiences with peers. The child may be able to objectively compare the experiences without much denial. It could be wasted breath for the child care worker to use this same technique with a child whose abstract reasoning is poor. That child may need to be told, point blank, just what interaction is appropriate.

Abstract thinking is merely one term used frequently in psychological evaluations. As mentioned previously, psychological terms are usually defined but when a mass of terms are combined into one paragraph or one section of the evaluations, they can be overwhelming. It is very important for Child Care Workers who wish to fully understand a child to learn to readily recognize this language and its meaning.

A Few Terms

Short-term auditory recall: this term may be used in relation to the Digit Span subtest in the WISC-R. The tester says a series of numbers and the child is asked to repeat them. A child must be able to listen attentively, remember the numbers and verbally recall them. Often, after a child care worker has spoken with a child, the child is asked to repeat what was said. A child who has poor short-term auditory-verbal recall may very legitimately not be able to tell the worker what was said. Having a child listen to and repeat short phrases may be a more successful approach.

Cognitive and perceptual are two terms that are often used interchangeably. Used to explain the process of a child's understanding in a specific area, they are frequently linked with such terms as verbal, nonverbal, visual and auditory. Noting the child's strengths and weaknesses in these areas can give clues as to how a child can best function in certain situations.

Visual perception: the ability to understand what is seen.

Perceptual-motor skills: the ability to understand how a movement is made.

Fine motor ability: being able to make small movements, e.g., writing.

Visual-motor coordination: the ability to have the eye see something and the hand or another part of the body to replicate what is seen. These four terms are often referred to in the Digit Symbol subtest of the WISC-R. The child is shown a series of symbols paired with numbers, e.g., 1 with - or 8 with x. The child is then asked to fill in symbols under the numbers they have been related with. A child with strengths in this area probably learns easily through watching how things are done and then practices them easily. When there are deficits in this area a Child Care Worker will need much more patience with a child and may wish to explain the actions while they are being made.

At times sensory functions are linked together, i.e., auditory-oral, visual-oral, auditory-written and visual-written. The results of testing in these areas can often help the Child Care Worker who is assisting a child specifically at study time in the unit. The child who struggles in visual-oral functions may have greater difficulty reading. The first step a child care worker may take with this child is perhaps to read an assignment to the child, a paragraph at a time, while the child is reading silently to him/herself. The child could then read it back after he has heard the words before reading orally. If the weakness lies in visual-written areas a child may need to have his/her spelling words sounded out as he/she is looking at them so they can later be recognized.

No matter the deficit, it is always good to remember that any child learns more quickly when he/she is being stimulated by more than one sense at a time, i.e., visually and auditorally. That is one reason why the computer has become such a vital tool in the classroom. Using quarters, nickels and dimes when explaining money concepts to a child or filling two measuring cups when explaining pints can speed a child's learning process.

Concept formation ability is the ability to form ideas whether verbally or nonverbally. Often, a child, especially a young child, will find it much easier to explain a concept or a feeling in a drawing. This is true because a young child's verbal skills have not been thoroughly developed. A child who struggles with verbal concept formation would probably be more comfortable explaining him/herself with a drawing as well.

The Child Care Worker and Psychological Evaluation

This paper is only a brief review of the psychological evaluation. There has been much written on the subject and information is readily available. If Workers are to be viewed as truly professional, there is a great need to learn more about the other disciplines and their clinical tools. One would certainly question a social worker if the language he/she were using to describe a family situation was unclear. Through understanding and communication of the professions, the child care worker becomes more visual. By sharing views, psychological evaluations may be written with the child care workers' needs in mind.

There are new testing methods constantly researched by psychologists and other professionals. Many of them involve even simpler tasks than those explained here and their administration is just as simple. On a daily basis in the milieu, the Child Care Worker tests the abilities of the child in many situations, i.e., how well the child follows through on tasks or thinks through problems. A child who has successfully and skillfully learned to play such games as chess, backgammon or Monopoly, displays many abilities. But few, if any, of these abilities have been studied by Child Care Workers. As a profession, Child Care Work is emerging and with it must be research. Implications for research in the milieu are limitless and deserve to be studied further.

REFERENCES

- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders*, Third Edition. Washington, D.C.; APA.
- Anastasi, A. (1982). *Psychological testing* Fifth Edition. New York: Macmillan Publishing Company.
- Bolander, K. (1977). *Assessing personality through tree drawings*. New York: Basic Book.
- Botterbursch, K.F. (1978). *Psychological testing in vocational evaluation*. Menomonie, WI: Materials Development Center.
- Buck, J.N. (1974). *The house-tree-person (H-T-P) manual supplement*. 4th printing. Beverly Hills, CA: Western Psychological Services.
- Burns, R.C. and Kaufman, S.H. (1977). *Kinetic family drawing (K-F-D): An introduction to understanding children through kinetic family drawings*. New York: Brunner/Mazel.
- Buros, O.K. (1978). *The eighth mental measurements yearbook*. Lincoln, University of Nebraska, Buros Institute of Mental Measurements.
- Di Leo, J.H. (1983). *Interpreting children's drawings*. New York: Brunner/Mazel.
- Harris, D.B. (1963). *Children's drawings and measures of intellectual maturity*. New York: Harcourt, Brace and World.
- Jung, C.G. (1964). *Man and his symbols*. New York: Doubleday.
- Kaplan, R.M. and Saccuzzo, D.P. (1983). *Psychological testing: Principles, applications, and issues*. Monterey, CA: Brooks/Cole Publishing Co.
- Machover, K. (1949). *Personality projection in the drawing of the human figure*. Springfield, IL: Charles C. Thomas.
- Moriarty, J.B. (1980). *Psychological tests*. Charleston, WV: Human Development Associates.
- Sattler, J.M. (1982). *Assessment of children's intelligence and special abilities*. (Revised Edition). Boston, MA: Allyn & Bacon.
- Wechsler, D. (1958). *The measurement and appraisal of adult intelligence*. Fourth edition. Baltimore: Williams & Wilkins.