

TESTING IN VARIOUS AREAS



EMPLOYMENT TESTING



- **Psychological testing is carried out for the selection of personnel**
- **Employment testing must meet acceptable professional and legal standards**
- **All tests should tie directly to the job description and standards required**

EMPLOYMENT TESTING



How are people hired for a particular job or position?

A. EMPLOYMENT INTERVIEW

- Can be influenced by extraneous factor such as age, disability status, gender, race

B. USE OF TESTS

- When used in addition to interview & other sources of information, can improve chances of successful selection

Examples of Psychological Tests Used to Select Employees



- Personality Tests
- Honesty/Integrity Tests
- Tests of Emotional Intelligence
- Vocational Interest Inventories
- Cognitive ability tests
- Aptitude tests
- Psychomotor tests
- Physical Ability and Sensory/Perceptual Ability Tests

ABILITY AND APTITUDE TESTS



- **Abilities:** enduring general traits or characteristics on which people differ and which they bring to a work situation
- **Skill:** an individual's degree of proficiency or competency on a given task, which develops through performing the task
- **Aptitude:** a specific, narrow ability or skill that may be used to predict job performance



- **Cognitive ability tests:** assess intelligence, general mental ability, or intellectual ability
 - Abilities include verbal and numerical ability, reasoning, memory, problem solving, and process information
 - Paper-and-pencil tests available

Practical Intelligence/Job Knowledge



- **Practical intelligence:** the ability to apply ideas in “real world” contexts
- **Tacit knowledge:** derived from experience when learning is not the primary objective
- **Job knowledge:** knowledgeable if issues and/or procedures deemed essential for successful job performance



- **Emotional intelligence:** the ability to accurately perceive and appraise emotion in oneself and others; to appropriately regulate and express emotion
- **Psychomotor abilities:** traits or characteristics that involve the control of muscle movements
 - e.g.
 - finger dexterity
 - multi-limb coordination
 - reaction time
 - arm-hand steadiness
 - manual dexterity



- **Physical abilities:** traits or characteristics that involve the use or application of muscle force over varying periods of time, either alone or in conjunction with an ability to maintain balance or gross body coordination
- **Sensory/perceptual abilities:** traits or characteristics that involve different aspects of vision and audition, as well as the other senses

Work Samples and Simulation Tests



- Tend to be used to assess skills and competencies
- Require the job candidate to produce behaviours related to job performance under controlled conditions that approximate those found in the job
- **Situation exercises:** assess aptitude or proficiency in performing important job tasks by using tasks that are abstract and less realistic than those performed on the actual job



- **Assessment centre:** a standardized procedure that involves the use of multiple measurement techniques
 - Multiple assessors to evaluate candidates for selection, classification and promotion
- **Honesty/Integrity testing:** self-report inventories designed to assess employee honesty and reliability
 - Increasingly popular method of screening out potentially dishonest employees

CLINICAL ASSESSMENT



- **The process of assessing the client through multiple methods, including:**
 - a. clinical interview
 - b. administration of informal assessment techniques
 - c. Administration of objective and projective tests

Contextual Issues



- Types of referral settings
 - Psychiatric setting
 - General medical setting
 - Legal context
 - Educational context
 - Psychological clinic

10 MOST FREQUENTLY USED TESTS



1. Weschler intelligence scales
2. MMPI
3. Rorschach
4. Bender
5. TAT
6. Projective drawings
7. Weschler memory scale
8. Beck depression inventory
9. MCMI
10. California Psychological Inventory

Evaluating Psychological Tests



- Theoretical orientation
- Practical considerations
- Standardization
- Reliability
- Validity

TASKS IN CLINICAL ASSESSMENT



1. Evaluate the referral question
2. Study the problem
3. Data collection
4. Interpreting the data

Phases:

- Collect data
- Generate hypotheses and test them
- Accept/reject hypotheses
- Make general statements based on hypotheses
- Describe and discuss general factors

Domains of Assessment: The Clinical Interview and Physical Exam



- **Clinical Interview**
 - ✦ Most common clinical assessment method
 - ✦ Structured or semi-structured

- **Mental Status Exam**
 - ✦ Appearance and behavior
 - ✦ Thought processes
 - ✦ Mood and affect
 - ✦ Intellectual functioning
 - ✦ Sensorium

- **Physical Exam**

Behavioural Assessment and Observation



- **Behavioural Assessment**
 - Focus on the present
 - Direct observation of behaviour
 - Purpose is to identify problematic behaviours and situations
 - Identify antecedents, behaviours and consequences
- **Behavioural Observation and Behavioural Assessment**
 - Can be either formal or informal
 - Self-monitoring vs. being observed by others
 - Problem of reactivity using direct observation

Psychological Testing and Projective Tests



- **Psychological Testing**
 - Must be reliable and valid

- **Projective Tests**
 - Project aspects of personality onto ambiguous test stimuli
 - Require high degree of inference in scoring and interpretation

Neuropsychological Testing



- Assess broad range of skills and abilities
- Goal is to understand brain-behaviour relations

NEUROIMAGING: PICTURES OF THE BRAIN

- Allows for a window on brain structure and function

IMAGING BRAIN STRUCTURE

- Computerized Axial Tomography (CAT Scan)
- Magnetic Resonance Imaging (MRI)



- **Imaging Brain Function**

- Positron emission tomography (PET)

- Single photon emission computed tomography (SPECT)

- Both involve injection of radioactive isotopes

- Isotopes react with oxygen, blood, and glucose in the brain

- Functional MRI (fMRI) – Brief changes in brain activity

Psychophysiological Assessment



- Assess brain structure, function, and activity of the nervous system
- Psychophysiological Assessment Domains
 - Electroencephalogram (EEG) – Brain wave activity
 - Heart rate and respiration – Cardiorespiratory activity
 - Electrodermal response and levels – sweat gland activity
- Use of Routine Psychophysiological assessment
 - Disorders involving a strong emotional component
- Examples
 - PTSD, sexual dysfunctions, sleep disorders, headache, hypertension

Objective Personality Testing



- A type of paper and pencil personality assessment, often in **multiple choice or true/false formats**, that assesses personality
- Often used to:
 - a. Increase client insight
 - b. Identify psychopathology
 - c. Assist in treatment planning
- Each objective personality test measures different aspects of personality based on the specific constructs defined by the test developer

Minnesota Multiphasic Personality Inventory - 2



- Most widely used personality test.
- Developed in 1942, revised last in 1989.
- 90 minutes to take the 527 items.
- To interpret requires grad level course in psychological testing and a grad level course in psychopathology
- Provides six validity scales, ten basic (clinical) scales, and fifteen content scales.
- Commonly used scales: three validity scales and ten basic scales (see Figures 9.1 and Table 9.1, p. 171).
- Adolescent version also exists: MMPI-A

MMPI - 2



- It is important to understand the meaning of each scale.
- A high L (Lie) means the client is having trouble admitting to his or her faults– makes entire test results suspect.
- The Basic Scales are useful in diagnosis and treatment planning
- Look at patterns of responses.
- “Clinical significance” is a T score of 65 or greater.
- Content Scales, identify 15 specific traits such as anxiety, fears, anger, cynicism, low self-esteem.
- Reliability estimates on the different scales (.37 to .92)
- Some high intercorrelations in scales, probably because scales share some items.

Millon Clinical Multiaxial Inventory, 3rd Ed. (MCMI – III)



- Second most used objective personality test.
- Designed to assess DSM-IV-TR personality disorders and clinical symptomatology.
- Adolescent version also exists.
- 175 true/false items take 25 minutes.
- Has six different major scales (Table 9.3, p. 174):
 1. Clinical Personality Pattern Scales
 2. Severe Personality Pathology Scales
 3. Clinical Syndrome Scales
 4. Severe Clinical Syndrome Scales
 5. Modifying Indices
 6. Validity Index

MCCMI - III



- Uses Base Rate (BR): Converts raw score to a more meaningful standardized score
 - ◉ Sets median for non-psychiatric individuals at 35, and 60 for psychiatric population.
 - ◉ A BR of 75 indicates that some of the features are present while a BR of 85 indicates that the trait is clearly present.
- Reliability ranges from .67 to .90
- Scales have been correlated with several other scales such as the MMPI and the BDI.
- Other studies demonstrated predictive validity for the instrument with DSM-IV-TR diagnoses.

The Beck Depression Inventory—II (BDI-II)

- BDI-II developed in 1996
- 21 questions on 0 to 3 scale to measure depressive symptoms.
- Takes 10 minutes to take.
- Cut-off scores are given to measure depression (see Table 9.4, p. 175).
- Scores related to groups of depressed and non-depressed individuals.
- High reliability estimates (in .90s).
- Convergent validity with original BDI and discriminant validity with other disorders.

The Myers-Briggs Type Indicator

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- Most widely used personality assessment for normal functioning (for adolescent through adults).
- Based on Jung's work, following characteristics derived: extroverted or introverted, sensing or intuiting, thinking or feeling.
- Myers and Briggs added judging or perceiving.
- Some have questioned the reliability of results
- Most agree with results and they seem to correlate with scores on other tests (e.g., CPI).

The California Personality Inventory (CPI)

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- Describe basic personality characteristics.
- Used with normal clients; helpful to further client insight.
- Uses T scores.
- Reliability: .68 - .76.

The Coopersmith Self-Esteem Inventory

- Measures self-esteem for children 8 – 15, in four areas:
 1. general self (24 items),
 2. self in relation to peers (8 items),
 3. self in relation to parents (8 items), and
 4. self in relation to school (8 items).
- Reliability ranges from .87 to .90, but information dates back to early 1970s.

Common Objective Personality Tests

- There are dozens of common objective personality tests. Some others, include:
 - 16 PF: Measures 16 personality factors identified by Raymond Cattell.
 - Taylor-Johnson Temperament Analysis: Assesses personality variables that effect social, family, marital, work, and other environments.
 - The Marital Satisfaction Inventory: Assesses the severity and nature of conflict in a relationship.
 - Miller Marriage Satisfaction Rating Scale: Reports how a couples' satisfaction compares to another couples'. (On-line—lack of validity data).

Projective Testing



- Type of personality assessment where a client is presented a stimuli and personality factors are interpreted
- Often used to identify psychopathology and to assist in treatment planning
- Much more difficult to measure validity when one is dealing with abstract responses to vague

Thematic Apperception Test (TAT)

- Developed in 1938 Henry Murray
- Series of 31 cards with vague pictures on them
- 8 to 12 cards generally used during an assessment
- Examiner asks the client to create and describe a story that has a beginning, middle and end.



- Most clinicians use qualitative process of interpreting responses.
- Controversy over reliability and validity of instrument.
 - Based on Murray's need-press theory: People driven by internal desires, such as attitudes, values, goals, etc. (needs), or external stimuli (press) from the environment.
 - No universally agreed upon scoring and interpretation method.

Rorschach Inkblot Test



- Herman Rorschach developed inkblot test in 1921 by splattering ink on paper and folding them in half (See Fig. 9.6, p. 186).
- 10 final cards
- When giving the Rorschach, clinicians show clients cards, one at a time, and ask them to tell them what they see on the card.
- Rorschach believed images on the inkblots allowed one to express his or her unconscious.
- Difficulty showing adequate validity.
- Requires extensive training and practice to use.

The Bender Visual-Motor Gestalt (2nd ed.)

- Lauretta Bender originally published test in 1938.
- Takes 5-10 minutes and measures developmental level, psychological functioning, as well as neurological deficits after a traumatic brain injury.
- 5-point scoring system. 0 represents no resemblance and 4 represents a nearly perfect drawing.
- Reliability in .80s and .90s.

House-Tree-Person and Other Drawing Tests

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- Drawing tests try to tap into unconscious. Focus might vary depending on content of test.
- Some popular ones:
 1. *House-Tree-Person*
 2. *Kinetic-House-Tree-Person*
 3. *Draw-A-Man*
 4. *Draw-A-Woman*
 5. *Kinetic Family Drawing*: Draw a picture of your family all doing something together.

Sentence Completion Tests

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- A sentence stem is given to client for client to respond to.
- Gather important content information and possible unconscious issues.
- Questions about the validity and reliability of sentence completion tests remain, but can be quick and useful way of gathering info.

PSYCHOSOCIAL ASSESSMENT



- an evaluation of a person's mental health, social status, and functional capacity within the community, generally conducted by psychiatric social workers

Psychosocial Assessment



- **Assessment Interviews**
 - Structured (most reliable) and Unstructured Interviews
 - Computerized Interviewing
- **Clinical Observation of Behaviour**
 - Self-monitoring
 - Rating Scales
 - Kinds of Clinical Observations
 - ✦ Natural Setting
 - ✦ Role Playing
 - ✦ Create a Transaction in Vivo



- **Intelligence Tests**
 - Vocabulary (verbal)
 - Non-verbal
- **Projective Personality Tests**
 - The Rorschach
 - Thematic Apperception Test (TAT)
 - Sentence Completion Test
- **Objective Personality Tests**
 - MMPI
 - MBTI
 - 16PF

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Assessment Data and Therapy

- Most clinicians do not routinely use assessment techniques
- Research supports use of assessment techniques in proper diagnosis and treatment
- When test results are shared appropriately with a client positive outcomes in treatment are noted
- Test feedback alone can produce therapeutic results that were comparable to or better than therapy without test feedback

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ETHICAL ISSUES



- Professional relationship
- Invasion of privacy
- Inviolacy
- Labeling and restriction of freedom
- Competency
- Interpretation and use of test results
- Communicating test results
- Maintenance of test security and assessment information

*The **main difference** between
a professional and a
nonprofessional is that
professionals take personal
responsibility for their work.*

Sources for Ethical Decisions



- APA Ethical Principles of Psychologists and Code of Conduct
- Code of Fair Testing Practices in Education
(<http://www.apa.org/science/programs/testing/fair-testing.pdf>)
- Code of Ethics for Philippine Psychologists
(http://www.pap.org.ph/includes/view/default/uploads/code_of_ethics_pdf.pdf)



- Given the widespread use of tests, there is considerable potential for abuse.
- A good deal of attention has therefore been devoted to the development and enforcement of professional and legal standards.
- The American Psychological Association (APA) has taken a leading role in the development of professional standards for testing.



CODE OF ETHICS

- The PAP shall take steps to ensure that all members of the PAP and the larger community of Philippine psychologists will know, understand, and be properly guided by this Code. As such the PAP will encourage continuous discussions on the Code and any of its specific provisions, with the goal of making the Code a priority concern for all Philippine psychologists.

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- Finally, any person who has a strong basis for asserting that a member of the PAP, especially a Certified Psychology Specialist of the PAP, has violated any provision of this Code should inform the PAP in writing, and provide supporting evidence for the assertion. This information should be addressed to the PAP President and Board of Directors (ATTN: Scientific and Professional Ethics Committee). Upon receipt of such information, the PAP shall take steps to investigate, make appropriate actions, and place proper sanctions, if necessary.

DECLARATION OF PRINCIPLES



- Psychologists in the Philippines adhere to the following Universal Declaration of Ethical Principles for Psychologists that was adopted unanimously by the General Assembly of the International Union of Psychological Science in Berlin on July 22, 2008 and by the Board of Directors of the International Association of Applied Psychology in Berlin on July 26, 2008



- The objectives of the Universal Declaration are to provide a moral framework and generic set of ethical principles for psychology organizations worldwide:
(a) to evaluate the ethical and moral relevance of their codes of ethics; (b) to use as a template to guide the development or evolution of their codes of ethics; (c) to encourage global thinking about ethics, while also encouraging action that is sensitive and responsive to local needs and values; and (d) to speak with a collective voice on matters of ethical concern.

PRINCIPLE I – Respect for the Dignity of Persons and Peoples



- a) respect for the unique worth and inherent dignity of all human beings;
- b) respect for the diversity among persons and peoples;
- c) respect for the customs and beliefs of cultures, to be limited only when a custom or a belief seriously contravenes the principle of respect for the dignity of persons or peoples or causes serious harm to their well-being;
- d) free and informed consent, as culturally defined and relevant for individuals, families, groups, and communities;
- e) privacy for individuals, families, groups, and communities;
- f) protection of confidentiality of personal information, as culturally defined and relevant for individuals, families, groups, and communities;
- g) fairness and justice in the treatment of persons and peoples.

PRINCIPLE II – Competent Caring for the Well-being of Persons and Peoples



- a) active concern for the well-being of individuals, families, groups, and communities;
- b) taking care to do no harm to individuals, families, groups, and communities;
- c) maximizing benefits and minimizing potential harm to individuals, families, groups, and communities;
- d) correcting or offsetting harmful effects that have occurred as a result of their activities;
- e) developing and maintaining competence;
- f) self-knowledge regarding how their own values, attitudes, experiences, and social contexts influence their actions, interpretations, choices, and recommendations;
- g) respect for the ability of individuals, families, groups, and communities to make decisions for themselves and to care for themselves and each other.

PRINCIPLE III - Integrity



- a) honesty, and truthful, open and accurate communications;
- b) avoiding incomplete disclosure of information unless complete disclosure is culturally inappropriate, or violates confidentiality, or carries the potential to do serious harm to individuals, families, groups, or communities;
- c) maximizing impartiality and minimizing biases;
- d) not exploiting persons or peoples for personal, professional, or financial gain;
- e) avoiding conflicts of interest and declaring them when they cannot be avoided or are inappropriate to avoid.

PRINCIPLE IV – Professional and Scientific Responsibilities to Society



- a) the discipline's responsibility to increase scientific and professional knowledge in ways that allow the promotion of the well-being of society and all its members;
- b) the discipline's responsibility to use psychological knowledge for beneficial purposes and to protect such knowledge from being misused, used incompetently, or made useless;
- c) the discipline's responsibility to conduct its affairs in ways that are ethical and consistent with the promotion of the well-being of society and all its members;
- d) the discipline's responsibility to promote the highest ethical ideals in the scientific, professional and educational activities of its members;
- e) the discipline's responsibility to adequately train its members in their ethical responsibilities and required competencies;
- f) the discipline's responsibility to develop its ethical awareness and sensitivity, and to be as self-correcting as possible.



Informed Consent in Assessments



- Obtain informed consent for assessments, evaluations or diagnostic services, EXCEPT when:
 - (1) testing is mandated by law or governmental regulations;
 - (2) informed consent is implied because testing is conducted as a routine educational, institutional or organizational activity (e.g., when participants voluntarily agree to assessment when applying for a job);



(3) one purpose of the testing is to evaluate decisional capacity. Informed consent includes an explanation of the nature and purpose of the assessment, fees, involvement of third parties and limits of confidentiality and sufficient opportunity for the client/patient to ask questions and receive answers.



Psychologists inform persons with questionable capacity to consent or for whom testing is mandated by law or governmental regulations about the nature and purpose of the proposed assessment services, using language that is reasonably understandable to the person being assessed.

Release of Test Data



- Test data refers to raw and scaled scores, client/patient responses to test questions or stimuli and psychologists' notes and recordings concerning client/patient statements and behavior during an examination. Those portions of test materials that include client/patient responses are included in the definition of test data.



- Pursuant to a client/patient release, psychologists provide test data to the client/patient or other persons identified in the release.
- Psychologists may refrain from releasing test data to protect a client/patient or others from substantial harm or misuse or misrepresentation of the data or the test, recognizing that in many instances release of confidential information under these circumstances is regulated by law.



In the absence of a client/patient release, psychologists provide test data only as required by law or court order.



- Should take into account the purpose of the assessment as well as the various test factors, test-taking abilities and other characteristics of the person being assessed, such as situational, personal, linguistic and cultural differences, that might affect psychologists' judgments or reduce the accuracy of their interpretations. They indicate any significant limitations of their interpretations

Assessment by Unqualified Persons



- Psychologists do not promote the use of psychological assessment techniques by unqualified persons, except when such use is conducted for training purposes with appropriate supervision.

Obsolete Tests and Outdated Test Results



- Psychologists do not base their assessment or intervention decisions or recommendations on data or test results that are outdated for the current purpose.
- Psychologists do not base such decisions or recommendations on tests and measures that are obsolete and not useful for the current purpose.

Test Scoring and Interpretation Services



- Psychologists who offer assessment or scoring services to other professionals accurately describe the purpose, norms, validity, reliability and applications of the procedures and any special qualifications applicable to their use.
- Psychologists select scoring and interpretation services (including automated services) on the basis of evidence of the validity of the program and procedures as well as on other appropriate considerations



- Psychologists retain responsibility for the appropriate application, interpretation and use of assessment instruments, whether they score and interpret such tests themselves or use automated or other services.

Maintaining Test Security



- The term test materials refers to manuals, instruments, protocols and test questions or stimuli and does not include test data
- Psychologists make reasonable efforts to maintain the integrity and security of test materials and other assessment techniques consistent with law and contractual obligations, and in a manner that permits adherence to this Ethics Code.

RIGHTS OF TESTTAKERS



- **Informed consent**
 - The right to know why they are being evaluated.
 - How the test data will be used.
 - What (if any) information will be released to whom?
 - In a language the testtaker can understand.
- **Generally, the client/subject must voluntarily consent.**
- **Psychologist must inform client about nature and purpose of assessment in understandable language**

Informed consent - exceptions



- Sometimes, it is acceptable to test without getting consent – e.g., you have given implied consent to be tested by registering in a specific course.
- Sometimes it is *necessary* to test without getting consent, even when consent is explicitly refused by person to be tested – e.g., when mandated bylaw

Least Stigmatizing Label



- If categories are used, must be described precisely.
- Sometimes diagnosis is related to treatment and even if counselor is trying to be helpful, it is both illegal and unethical to change a diagnosis.

DEBRIEFING



Post-administration debriefing should:

- Restate purpose of testing.
- Explain how the results will be used (usually, emphasize that the interest is in the group findings).
- Reiterate that findings will be treated confidentially.
- Answer all of the respondents questions fully.
- Thank the examinee.

Factors Not Under the Examiner's Control



- 1. How fatigued a test taker is.
- 2. Motivation level of the test taker.
- 3. Physical Discomfort
- 4. Test Anxiety

Ethnic and Cultural Variables



- Knowledge of attitudes of various racial, ethnic, or cultural groups toward testing.
- Ability to determine language proficiency.



- Ability to determine the potential effects of different test settings on different racial, ethnic, or cultural groups.
- Knowledge of specific biases that have been demonstrated for particular tests for individuals or groups of individuals from particular racial, ethnic, or cultural minority groups.

Test Use & Test Fairness



- **A test is most likely to be seen as unfair when:**
 1. It is the sole basis for the decision.
 2. The consequences of doing poorly on the test is harsh.
- **Ways to reduce concerns over test unfairness:**
 1. Multiple assessment procedures
 2. Use more intensive screening procedures for those likely to be treated unfairly by a given test

Test Fairness



- People with different values often disagree over the fairness of some testing practices.
- Factors that affect testing fairness:
 1. Obstacles that prevent people from performing well
 2. Test may provide unfair advantage to some people
 3. Some tests are not valid and used in wrong situations
 4. Some tests are used for purposes that are inherently objectionable

Ethical Issues in Psychological Assessment in School Settings



Most Frequent Ethical Issues Psychologists Confront



- 1.) Process of parental consent and involvement.
- 2) Obligation to select nonbiased test instruments and use them in a way that is not racially or culturally biased.
- 3) Appropriate administration and interpretation of projective tests in school settings.
- 4) Use of computerized psychological assessment

N ondiscriminatory Assessment



- Psychologists are obligated to be culturally sensitive in administering tests to pupils.
- Impact of assessing pupils without utilizing their native language.
- Impact of discrepancies caused by translators.
- Ensure pupil's ability to read prior to test administration.
- Is 'language' the root of the pupil's academic problems?

Computerized Psychological Testing



- Ethical issues in the use of computerized testing:
 - accountability for the psychological assessment.
 - appropriate application, interpretation, and use of assessment instruments.
 - disparity between automated report and the psychologist's clinical impression of the client.



- **Questions regarding the validity of computer-assisted assessment**

- lack of demonstrated validity for the printed interpretations they generate.

- test developer should establish validity and reliability of the test and resulting interpretations should be done with a professional review.

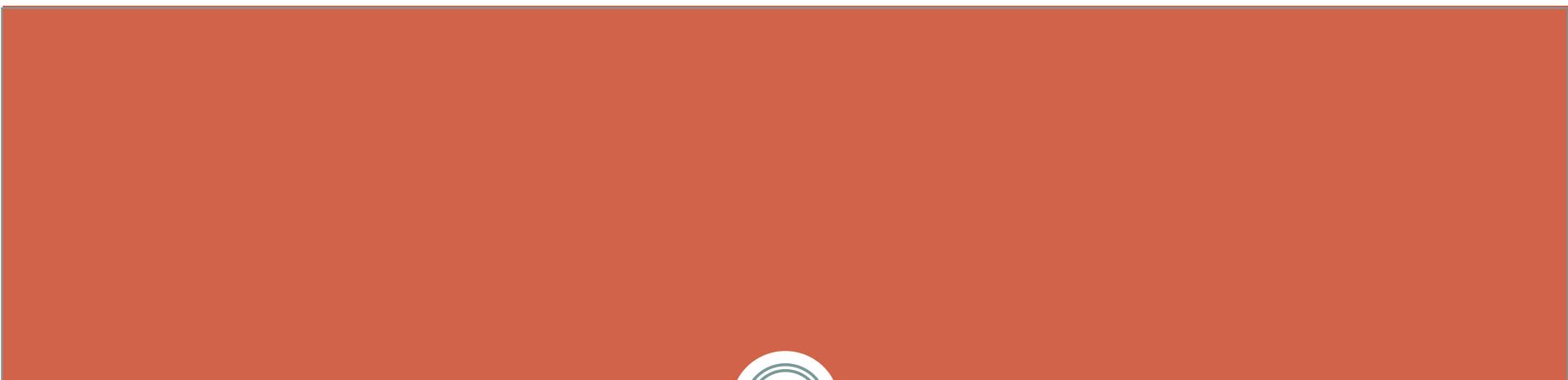


- A school psychologist should review and edit the narrative report done by the computer, so that it is specific to the individual who was tested. Test administration procedures and supervision of assistants.
 - familiarity with the instruments to be used.



- Computer programs are not a substitute for supervision because they are not designed to teach testing skills to the individual who uses these programs.
 - must be used in conjunction with the clinical judgment of well-trained professionals
 - psychologists are responsible in determining whether the test results are valid for a particular individual





END

