

Assessment of Perceptual Motor Skills
Contribution to Psycho-Evaluation: Unit 4

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INTRODUCTION

According to (Koppitz, 1975) manual suggests, “the use of the BVMGT is a rough test of intelligence. The BVMGT is not an intelligence test but a measure of a child’s skill in coping geometric designs. It provides a very limited sample of behavior.”

Although perceptual motor development has emerged as a very important instrument for the development of academic skills of those afflicted by the impairment, its reliability has become questionable. (See Salvia & Ysseldyke, 2004, p. 538).

Psychometric Purists suggest that it is one of the most difficult areas of assessment in the history of psycho-education and medical science. Is it simply because of the inconsistency of measurement which compromises the reliability and validity of the test or mere inconsistency? Bender (1938) suggests, “the BVMGT consists of nine geometric designs.” Through this vein, (Salvia & Ysseldyke, 2004, p.538) infers, “The majority of research has shown, however, that most perceptual motor tests are unreliable.” Why is (Koppitz (1995) book commendable? Yet it played down the need of any review of the literature. This concept perplexes the researcher, as the review of the literature is an essential part of any study.

More important, the researcher gives thanks to God for the United States. In the former Soviet Union, children with disabilities were normally annihilated. The Nazis thought that they could never meaningfully contribute to German society, simply because they were disabled. Some countries in the world today still have the same concept of either ostracizing the disabled or euthanizing them.

More importantly, because researchers have made these prognostications and judgments about perceptual motor tests, the researcher is about to delve deeper into the

causes and effects to find out why these tests have negative outcomes, as well as to ascertain from previous studies whether those researchers recommended that their studies be subjected to further study or replication. In this instance, there seems to be adequate identification of the performance gap, in that improving locomotive skills, hand-eye and foot-eye coordination are recognizable gaps that merit intervention. Thus, the necessary intervention is employed to close the performance gap.

Case Study:

A 5 year old child had been acting strangely in the classroom during class lessons. Out of the clear blue skies, he would just begin yelling, screaming and crying. The behavior being persistent, the teacher reported the matter to the parents and the principal, and the school psychologist. The principal then invited to the parents to the school for an administrative meeting with the principal, the guardian counselor and the school psychologist.

At the meeting it was mutually agreed upon by stakeholders that I conduct an evaluation of the circumstances surrounding the child's strange behavior pattern. From the explanation given by the teacher, I went to the classroom to first of all observe what was going on with the child. While in the classroom, I observed everything that the teacher reported to be true. Hence, I began my evaluation by recommending that child undergoes a medical examination to determine whether there is a presence of brain damage.

From questioning the parents, coupled with the examination itself, the M.D. diagnosed that the child had a brain damage that resulted from falling on the head while he was a toddler. This injury was never recognized by the parents. American Educational

Research Association. (1999) suggests, “Tests are administered to individuals with disabilities in various settings and for diagnostic purposes to determine the existence and nature of a test taker’s disabilities.” p.101.

Interestingly, it was apparent that I now had legitimate grounds for conducting the necessary psychological test for perceptual motor skills by presenting to the child the a sheet paper with the nine geometric designs for the child to copy on a separate sheet exactly the same designs that he saw on the paper given to him. The child although suffering from a brain damage, correctly copied the geometric designs, which authenticated that the child has passed the test. On the contrary if the child did not copy the designs correctly, on the test, the child must learn by being taught to do so, depending on the function of the injured brain. Predetermination must be made as to whether the child’s brain has the capacity to be receptive of this kind of special education learning.

More importantly, subtests such as Developmental Test of Visual Perception (DTVP-) by Hammill, Pearson & Voress (1993) may also be administered as a normed-referenced test. These subtests include, Eye hand coordination, position in space, copying, figure ground, spatial relations visual closure, visual-motor speed, form constancy. This test criterion-related validity, measurement ranges from .27 to .95.

Evaluation:

The evaluation is central to the study where the approach goes far beyond the testing by the assessor or school psychologist. The study may intercede for data collection, and review of the literature if deemed necessary. However the evaluation must include:

- The use of objective performance measures that are clearly related to the outcomes of the child's condition.
- Appointment of an advisory committee to help steer the evaluation plan.
- The principal, school psychologist and PE teachers will all work together to implement the evaluation Data collection and retrieving the necessary documents and raw data to determine that the outcomes and objectives were met.
- PTA board members will also be formed to help guide the evaluation, so that other students having similar deficiencies may be inclusive in the plan also.

The overall evaluation will include:

- a) meeting goals and objectives
- b) instruments and methodologies employed
- c) Final report on whether the No Child Left Behind (NCLB) Act was complied with under federal guidelines

Best Practice in the Assessment of Perceptual Motor Skills:

(Salvia & Ysseldyke 2004, p.541) from Koppitz's manual, suggest "Reliability coefficients ranged from .50 to .90 (mean=.71; mode=.76. On the basis of her review, Koppitz makes a claim for the essential reliability of the Bender Visual-Motor Gestalt Test (BVMTG)." This test was designed by Bender to detect not only signs of emotional disturbance, but to also differentiate between brain damaged adults and non-brain damaged adults. Moreover, perceptual motor skills in children vary from child to child. Some children may have minor setbacks such as, dyscoordination while other children's problems may be associated with learning disabilities in the form of multiple conditions for example, attention deficit, and other deficits. In particular, children with

multiple conditions are even at greater risks of developing behavioral complications in the short run. Obviously, several leading best practice authors in the field of psychology have recommended assessment tools such as, the WISC-III, the Wood-Johnson revised, Halstead-Reitan, Bender Gestalt and Luria-Nebraska. Other Best Practice instruments of grave importance are information on conducting clinical interviews, mental retardation, autistic disorders, social skills, curriculum-based assessment and perceptual motor skills.

Strategies in the Assessment of Perceptual Motor Skills:

Strategizing, analyzing and designing the approach in the areas of vision, visual perception and visual motor integration, non verbal learning disability, and perceptual impairments are essential elements to utilize when assessing perceptual motor skills. Psychological assessments of children are profoundly within the domain of assessing the psychological and educational measurement of children's adaptive behavior in the perceptual motor skills paradigm. A doctor may prescribe the proper medication or therapeutic service for potential cure of the disease prior to the child undergoing the perceptual motor skills test. However, only when the case seems so severe and there may not be any hope for medical or therapeutic treatment that may enhance the child's recovery, parents must be immediately notified at every step of the process, whether chances of the child's full recovery is viable or not.

Developmental motor coordination disorders, clumsiness, dycoordination disorder, motor dysproxia are results of brain damage. If detected early and the right intervention employed, may yield positive results for the patient. In contrast, if not timely intercepted, or taken seriously in its infancy may result in permanent disability. Some

parents whose children are victims of perceptual motor skills sometimes could be waiting for years and believing that the child may eventually over grow the defects, not knowing that it is the improper thing to do. Conventional wisdom suggests that parents detect early warning signals and seek medical attention very fast, in order to avoid the expense of unbearable medical and financial expenses when it has become too late.

Formal Assessment Approach:

The standard procedure is to use one or more norm-referenced instruments and the developmental checklists and other measures that have an established protocol to be included in the formal assessment approach, in that a reliability and validity must be established in making comparison of the child's ability to succeed with other students of the same age in the class. Moreover, the approach must not supinely rely on norm-referenced instruments. IDEA allows for the use of nor-referenced approaches, but the evaluator must be mindful that such an approach could compromise the validity and reliability of the study.

Informal Assessment Approach:

There are protocols for interviews in the informal approaches. Because caregivers, family members and others using a non-structured format with open ended questions, it is essential to collect assessment information from them. Informal approaches could also include interviews. Observational data in the naturalistic setting can also be useful, as it can provide the evaluator the opportunity to record the behavior pattern of the incidence being observed.

Recommendations:

1. Psycho-evaluation strategists and performance evaluators must take into consideration the complexities revolving around the validity and reliability of the Assessment of Perceptual Motor Skills.
2. By the same token, this study recommends that the psychologist must be assured that the medically afflicted or brain damaged child must be clinically determined by a medical doctor also.
3. The psychologist, psychiatrist or special education teacher who administers the perceptual motor skills test must determine the severity of the child's psychological condition and to what extent the brain damage has developed, that is contributing to the child's difficulty in learning.
4. The perceptual motor skills test must determine whether the impairment can be medically treatable, if detected in time.
5. As is customary, the diagnosis is recorded in the patient's medical history and also indicated on a certificate of disability, and given to the parent, providing proof as to the disability.
6. The fact being that it is normally for the doctor or psychologist alleging the existence of an impairment, adduces the facts, to substantiate the true existence of perceptual motor skills for futuristic reasons, such as to offset any case a

- dissatisfied party who subsequently decides to seek legal redress, wouldn't have legal justification for doing so.
7. This maneuver is to protect the patient, as well as the psychologist or doctor from frivolous malpractice law suits.
 8. The results from the diagnosis however, will ascertain whether chances of enabling the child to continue on with his or her educational dreams are grim, fruitful or fruitless endeavors.

Lessons from the Field:

The lessons from the field included, the work of Loretta Bender: The Bender Visual Motor Gestalt Test, (BVMGT), Koppitz's (1975) work which Bender's (1938) notion. I was very elated by the two integration errors in Koppitz's scoring of the BVMGT. In some of her findings relating to brain dysfunction and emotional disturbance, Koppitz concludes, "the BVMGT may be substituted "with some confidence" for screening test of intelligence." p. 541. I have learned from lessons from the field that although reliability for the BVMGT is low, yet it is essential for it allows for the child's copying of nine geometric designs, and it is not used in measuring intelligence, and the use of multiple measures. Moreover in this direction, there exist a degree of equation regarding subtests in intelligence and perceptual motor skills tests. Howard (1993) infers, "Few practices are more nefarious in education than the drawing of widespread educational implications from the composite score of a single test---like the Wechsler Intelligence Scale for Children. Even intelligence tests contain subtests and, at the very least, recommendations ought to take into account the "scatter" on these tests and the strategies for approaching particular items."(Kaplan, 1983).

According to (Morrison, J., 1995, p. 508), the Criteria for developmental coordination disorder may be categorized as follows:

- ✓ Motor coordination in daily activities is substantially less than would be expected from the patient's age and intelligence. This may be shown by dropping things, general clumsiness, poor handwriting, or poor sports ability, or by pronouncing delays in developmental motor milestone (such as sitting, crawling, or walking.)
- ✓ This incoordination materially impedes academic achievement or daily living.
- ✓ It is not due to general medical condition, such as cerebral palsy or muscular dystrophy.
- ✓ Criteria for a pervasive developmental disorder are not fulfilled.
- ✓ If there is a Mental Retardation, the incoordination is worse than would be expected from it.

REFERENCES

American Educational Research Association. (1999) *Standards for educational and Psychological Testing*. Washington: DC Author.

Bender, L. (1938). *Bender Visual-Motor Gestalt Test*. New York: Grune & Stratton.

Gardner, H. (1993). *Multiple Intelligences. The Theory in Practice*. Basic Books: NY.

Hammill, D., Pearson, N., & Voress, J. (1993). *Development Test of Visual Perception (DTVP)*. Pro-ed.

Kaplan, E. (1983). Process and achievement revisited. In S. Wapner & B. Kaplan (Eds), *Toward a holistic developmental psychology*, Hillsdale, NJ.

Koppitz, E.M. (1963). *Bender Gestalt Test of Young children*. New York, NY: Grune Stratton, Corp.

Morrison, J. (1995). *DSM-IV Made Easy: The Clinician's Guide to Diagnosis*. The Guilford Press, New York.

Salvia, J. & Ysseldyke, J.E. (2004). *Assessment in special and inclusive education* (9th ed.). Boston, MA Houghton Mifflin Company.