

The Importance of Testing in Forensic Vocational Disability Assessments

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In forensic matters of vocational disability and earning power assessment, the vocational expert is challenged with making a comprehensive assessment, usually after one encounter with the litigant. Many vocational experts rely heavily, and often exclusively, upon one of several methods of Transferable Skills Analysis (TSA). Vocational tests and other psychometric procedures, including work samples, are commonly viewed as the primary tools of assessment in career counseling and vocational rehabilitation. TSA alone is not always an adequate means by which to determine an individual's post-injury job potentials. Ideally, a forensic vocational test battery might include standardized measures of academic achievement levels, aptitudes, personality characteristics, and occupational interests. Whatever its origin, vocational assessment with TSA alone can be inadequate, and the forensic vocational evaluation with both testing and TSA enhances the evaluator's capacities to accurately predict residual employability and earning power.

Background

The forensic vocational disability evaluation has received considerable attention since vocational rehabilitation professionals, initially subcontracted by the Social Security Administration as vocational experts, also began to provide testimony in workers' compensation matters and personal injury lawsuits. Field and Sink published their first of its kind monograph on the subject, *The Vocational Expert*, in 1981. At approximately the same time, the American Board of Vocational Experts (www.abve.net) was established to "preserve the integrity, standards, ethics, and uniqueness of vocational experts."

The vocational assessment and evaluation of an individual's earning power following the onset of injury and/or illness is generally considered a multi-dimensional process of reviewing pertinent medical information, gathering relevant data through interviewing, and determining an individual's worker traits and job skills that have the potential for transferability to the examinee's so-called residual functional capacity (RFC). In forensic matters of vocational disability and earning power assessment, the vocational expert is challenged with making a comprehensive and complete assessment, usually after one encounter with the litigant.

Notwithstanding the challenges of forensic disability assessment, it has been our experience over the past 30 years that many vocational experts rely heavily, and often exclusively, upon one of several methods of Transferable Skills Analysis (TSA), procedures that tap into databases of vocational traits, especially the *Dictionary of Occupational Titles* (DOT) (www.occupationalinfo.org), developed by the U.S. Department of Labor. TSA procedures were increasingly employed after Field and Weed published *Transferable Work Skills* in 1989. Vocational experts do not customarily employ standardized testing or measurement in their forensic vocational assessments, and in our opinion, that may be a methodological error in many forensic vocational assessments.

Havranek, Field, and Grimes (2001) detailed the VDARE process in *Vocational Assessment: Evaluating Employment Potential*. The authors wrote that "Vocational Assessment is a multi-dimensional process of observing and judging a person in action. Valid and reliable testing instruments should be used to assist the professional evaluator in gathering appropriate data for the decision-making process." (p. 60).

The proposition here is certainly not a criticism of the VDARE methodology of TSA, or for that matter, any other TSA product (most are proprietary). On

the contrary, the VDARE model is sound. But as a method of evaluating a person's future employability, like all other TSAs, it is limited. What is often overlooked in the VDARE model is the fact that the original called for the use of "documented references," including standardized tests and work samples to "clarify" aptitudes, interests, and temperaments among other characteristics in the Residual Employability Profile.

Vocational tests and other psychometric procedures, including work samples, are commonly viewed as the primary tools of assessment in career counseling and vocational rehabilitation. Why vocational tests and measures are not more frequently employed by vocational experts in forensic matters is subject to speculation. However, utilizing TSA only, even after having met with a workers' compensation claimant or personal injury plaintiff, may be an adopted methodology (even if limited) from the vocational experts' experiences in Social Security Disability matters. In Social Security Administration adjudications, the court-appointed vocational expert does not have access to the claimant but must come to court, review evidence, listen to testimony, and from those data make a determination of what the individual claimant's TSA might be in response to Administrative Law Judge queries or "hypotheticals." That tradition is, of course, less effective than when the assessment specialist has access to the injured claimant/plaintiff and can employ other assessment tools.

Walker and Petersen (2009) noted that many disability evaluators have traditionally relied almost exclusively on TSAs. Yet, despite its broad acceptance in the field of vocational disability evaluation, the TSA is not comprehensive enough to adequately assess disability and residual employability. As a method of assessment, TSA has several inherent flaws that argue strongly against its use as an exclusive approach. A major criticism of the TSA is its rigidity and potential for error, which often leads forensic evaluators to overlook a range of alternative occupations available to a person simply because the alternatives fall outside the TSA description of the person's prior employment. This is known as the unadjusted vocational profile (UVP) in the VDARE method of TSA. The UVP is achieved by collapsing the work history profiles into a single profile, representing the examinee's demonstrative pre-impairment worker characteristics or traits.

Walker and Peterson argue, however, that TSAs capture the essential functions of job descriptions that the person reportedly carried out in the past and are not necessarily representative of the evaluatee's work-

er traits and characteristics. Job descriptions are certainly not universal as presumed by the U.S. Department of Labor in their DOT and the O*Net. For example, it would be absurd to think that all workers who are called "Office Managers" perform the same duties, and it would be equally preposterous to conclude that all Office Managers, by virtue of having the same job title, also have the same level of linguistic capabilities, hold the same interests, function with the same temperament, and possess the same potentials to learn alternative work skills. Yet TSA models extract worker trait data from job descriptions, not necessarily the person being evaluated.

Dunn and Cain (2001) reported that TSAs may be more effective for persons with certain trait capacities with relatively limited physical effects from injury or illness. For those who have greater physical effects from their impairments, TSA may not be as sensitive in identifying vocational alternatives. Dunn and Cain concluded, "More traditional vocational assessment methods (such as psychometric testing and work sampling) may be more sensitive in identifying appropriate vocational goals or vocational potential."

We have had the privilege of evaluating individuals from all occupational walks of life; from longshoremen with limited educations who are quite introverted to college graduates with advanced degrees who enjoy working with others. In some cases, comprehensive vocational assessments employing standardized testing have revealed evidence that TSAs could not. For example, some longshoremen have demonstrated through standardized testing that they possess high linguistic capabilities, vocational aptitudes, and personality styles revealing they can perform favorably in nonphysical employment requiring complex interactions with data and people, and not simply handling objects and things their job titles alone might predict.

Measuring an individual's mental and psychological competencies has merit. Mental measurements have been employed since the beginning of the 20th century. Entrance testing for college, law school, medical school, and the military has become the standard because it has predictive value. Before the federal government stopped publishing the General Aptitude Test Battery (GATB), most state agencies assigned the responsibility of the vocational rehabilitation of impaired and so-called "handicapped" people (the generally named Departments of Vocational Rehabilitation) utilized the GATB. The O*NET promotes the Ability Profiler and Interest Profiler. The most frequently employed aptitude test in America is the

Armed Services Vocational Aptitude Battery (ASVAB) used to determine a person's skills and aptitudes in a variety of subjects. The results enable the military to place applicants and recruits in the best possible slot for a person with that particular skill set.

Standardized test procedures that measure abilities, personality, and vocational interests are, in our opinion, essential elements of comprehensive vocational disability assessment. This is the case whether the results will be used for the purpose of occupational rehabilitation planning or for forensic assessment. In the latter case, measuring instruments as a component of the evaluation can be crucial since the examiner may have limited access to the examinee.

Meyer et al. (2001) pointed out the many benefits of using standardized testing as an indispensable tool in assessment and even demonstrated that many published standardized tests are as reliable as medical tests like x-rays and CT scans. The use of standardized testing provides unique information in that it can measure a person's aptitude for retraining in an appropriate (new) vocation. This information can lead to considerations that are not generally discernable from a traditional TSA.

Employing TSA without having any testing results may be a tradition (however limited) that derived from experience in Social Security Disability matters where the court-appointed vocational expert does not meet the claimant before the actual hearing. When the assessment specialist has access to the injured claimant/plaintiff prior to the court appearance, however, the vocational testimony can be significantly more accurate and useful to a jury or judge in understanding the litigant's occupational limitations and potentials.

Vocational Tests

Ideally, a forensic vocational test battery would include measures of academic achievement levels, aptitudes, personality characteristics, and occupational interests. By gathering data in each of these domains, the vocational expert is better equipped to assess and determine an occupational match. The identification of potential occupations that may be viable for the claimant adds a critical dimension not found in the TSA alone. The results of the vocational tests, when coupled with an employment history of the injured worker, provide the litigation with significantly more information on which to base a court ruling.

Academic testing measures an individual's abilities to read, spell, and calculate arithmetically. In gen-

eral, these abilities are acquired through the course of formalized schooling. However, reliance on statements of educational attainment alone without contemporary academic testing is not recommended because rarely do educational levels equate perfectly with actual ability. On the contrary, it is unfortunate, but we have tested high school graduates who are functionally illiterate. Therefore, achievement testing is essential in determining decisively the injured worker's basic linguistic and mathematical abilities.

Aptitudes represent an individual's capacity for learning, and aptitude testing, therefore, is designed to predict an individual's ability to learn certain skills when given the opportunity. Such skills can include solving problems visually, understanding mechanical principles, perceiving differences in tabulated data rapidly and accurately, and comprehending written information. The work that a person is most likely to be successful in is work that involves aptitudinal strengths.

Personality testing is designed to determine an individual's specific character traits and can be used to assess whether an individual's temperament fits a particular type of work. That is, although a person's ability to perform specific work is critical in job placement, for that individual to have the right temperament to effectively carry out the work on a daily and sustained basis may be equally important for job success.

Measures of an individual's interests are equally useful. An interest assessment delineates the examinee's preferences for different forms of work. By determining likes and dislikes, work that a person would probably enjoy can be more specifically described. Obviously, individuals who enjoy what they do each day will have greater motivation to continue their work and will have a better chance to be successful in performing that work.

Assessment Validity

Along with the actual assessment of an individual's academic achievement, aptitudes, personality, and interests, vocational evaluation also requires making certain that the data obtained are an accurate reflection of the individual being tested. In determining the validity of test data, one would be well advised to examine three specific components of the process that include: standard performance level, consistency of performance, and response rate.

Additionally, motivation to perform can be assessed through observation of test-taking behavior and with

response style instrumentation. These factors, along with observed level of motivation, can be used to assess whether test results gathered are a valid representation of test takers' actual potentials.

Notwithstanding the surprise of sometimes discovering through testing that a high school graduate is illiterate, the concept of standard performance level would suggest that an examinee should perform at a level fairly consistent with his or her educational background or same age peers, and he/she should perform better on tasks that are more closely aligned with his/her academic and employment histories. That is, one would expect that an architect would demonstrate good mathematical and visual problem solving abilities, while an author would possess good language skills. A standard performance level would also suggest that there should be a correlation between an individual's intellectual ability (verbal and nonverbal) and acquired skills in verbal and nonverbal areas.

Performance consistency suggests that examinees should demonstrate a similar ability level on tests measuring similar skills (e.g., vocabulary, reading comprehension). Individuals should perform in a like manner on measures assessing like skills. In addition, test data gathered should not show significant variance during the course of test administration occurring at one particular time. Examinees should demonstrate minimal fluctuation within or between tests assessing similar skills that are administered at one sitting.

Response rate assumes that examinees should be able to respond to questions on timed (speed) tests at a rate that would place them within a performance range equal to their general ability as long as physical and/or mental impairments are not a factor in their test-taking speed. Additionally, examinees should be able to complete untimed measures within the time frame identified in the test manual.

Along with these specific factors, trained vocational evaluators can assess motivational levels through observational data gathered during testing. Although motivation is generally considered an internal dynamic, how examinees behave while taking tests can provide a significant amount of information about how invested the individual is in performing at a maximal level.

Obviously, motivation to perform optimally should also be questioned when individuals make statements about their disinterest in the test-taking process or in their performance while working. Additionally, one would hope that the test taker who is truly

invested in his/her performance would be observed taking the time available to check responses for accuracy. Further, motivation should be questioned in individuals who engage in superficial conversation while working, succumb to possible distractions in the environment, skip or ignore test instructions or example problems, or work in an overly rapid and non-thoughtful manner. Thus, standardized testing not only yields quantitative data, but also permits the examiner to gather observational data regarding the examinee's approach to work-like tasks, the tests themselves.

To identify subject manipulation of test results, some tests, particularly personality measures, are equipped with their own validity scales. Other published tests, such as the Validity Indicator Profile, will yield data informing the examiner as to whether the test taker set forth valid and consistent effort on verbal and nonverbal measures of ability given concurrently.

The Basics of Forensic Testimony in Workplace Disability Litigations

To be a credible witness, workplace disability experts must understand the issues specific to workplace related injuries or illnesses, as well as the rules and standards of the American judicial system.

The Daubert Requirement

In 1993, the Supreme Court articulated a new set of criteria for the admissibility of scientific expert testimony. The original case was *Daubert v. Merrell Dow Pharmaceuticals, Inc.* 509 U.S. 579. In 1999, the Court, in *Kumho Tire Co. v. Carmichael* 526 U.S. 137, extended Daubert's general holding to include non-scientific expert testimony as well. In either case, the rulings relate to a case before a judge where the admissibility and validity of expert testimony is challenged by opposing counsel. In such case, the "expert" is required to demonstrate that his/her methodology and reasoning are scientifically valid and can be applied to the facts of the case. (Rehabilitation professionals are considered to be engaged in a scientific endeavor.)

It must be noted that in most, but not all, jurisdictions, an earlier standard titled the *Frye* standard has been superseded by the *Daubert* standard. In federal jurisdictions, the *Daubert* standard maintains while in some state jurisdictions, the *Frye* standard continues to be accepted. States that still follow the *Frye* standard include California, Florida, Illinois,

Maryland, Michigan, Minnesota, New Jersey, New York, Pennsylvania, and Washington.

The *Frye* standard holds that scientific evidence presented in court must be interpreted by the court as being "generally accepted" by a meaningful segment of the appropriate scientific community. In *Daubert*, the "expert" is required to demonstrate that his/her methodology and reasoning are scientifically valid and applicable with no reference to acceptability. The difference between the two standards is one of "general acceptance" versus a demonstration of "scientific validity."

Additional Requirements

Additionally, vocational rehabilitation professionals could benefit from practical experience with case analysis and opinion development, as well as the following specific methodologies:

- earning capacity evaluation
- lost wage analysis
- labor market surveying
- future care needs and "Life Care" planning
- functional capacity evaluations
- methods of judging quality and contemporary vocational rehabilitation services
- catastrophic case evaluation and management (especially spinal cord injuries, amputations, complex orthopedic and neurological injuries, and psychiatric illnesses) and
- vocational diagnostics via tests and testing methods

Key aspects of vocational assessment are:

- transferable skills analysis
- vocational testing
- job and jobsite modification/ergonomics
- rehabilitation plan development
- occupational retraining
- on-the-job training programs
- job analysis
- transition-to-work methods, and
- job placement

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Therefore, a primary source of preparation for forensic testimony, including meeting the *Daubert* requirement, is the administration and interpretation of standardized measures that will be used to es-

tablish the professionally certain vocational opinion. The vocational tests available in the United States are of very high quality in terms of validity and reliability standards, and forensic experts must demonstrate that they are capable of understanding their use and applying them to achieve optimal results.

Summary

In summary, it has been our experience as vocational disability evaluators over many years that too few vocational experts employ more than a TSA model in arriving at conclusions regarding an individual's residual employability and earning power. Nonetheless, assessment of occupational disability, post-injury employability, and earning power is a comprehensive process with increased predictive validity and reliability when the examiner uses multiple methods, including standardized testing.

TSA alone is not always an adequate means by which to determine an individual's post-injury job potentials. Vocational testing has substantial merit and increases the value of the one-time assessment. Employing a TSA only may be a vestige of methodology used historically in Social Security cases where the vocational expert has no pre-trial access to the claimant. Whatever its origin, vocational assessment with TSA alone is often inadequate, and vocational evaluation with both testing and TSA enhances the evaluator's capacities to accurately predict residual employability and earning power.

To expect the courts to rely solely on a determination of the vocational skills that an examinee has had, or claims to have had, in deciding on the future course for that individual would be to provide the court with less than the comprehensive information needed. Both the court and the individual litigant deserve more information and a more thorough analysis of what is possible going forward. The issue is not that more information is the goal. The issue is that vocational assessment without employing all possible procedures may be inadequate.

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