

## A TRIADIC APPROACH TO THE VOCATIONAL ASSESSMENT OF THE INDUSTRIALLY INJURED

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**ABSTRACT:** For many years the vocational assessment of the industrially injured worker has been standardized on a sequential two-step approach - psychometrics and work sampling. The Occupational Rehabilitation Center has added a third, work tolerance screening, which has effectively allowed the development of a unique program with comprehensive results. As a holistic, measurable approach, it has added a new dimension which allows all phases of assessment to interface completely with more successful outcome.

Various standardized psychological/psychometric tests are used at ORC to assess an individual's interests, aptitudes, intelligence, academic achievement levels, values/attitudes and personality. The selection of a particular psychological/psychometric test is directly related to the individual client, and, is used only to identify personal, social and vocational strengths and weaknesses of that individual client, and predict his vocational potential and work behavior.

Several of the worker characteristics which presently used Psychological/Psychometric tests are intended to assess and include the worker's ability to concentrate on tasks, comprehend and follow instructions, maintain motivation, communicate, think logically, remember, tolerate pressure and relate appropriately to co-workers and supervisors. In addition, such testing is conducted to evaluate other areas including stress, sensitivity to secondary gain, malingering behavior, and psychological trauma. As is the case with both work sample assessment and work capacity assessment, psychological/psychometric assessment places an emphasis on observing the client's related work behaviors which may enhance or interfere with successful employment.

In general, the ORC staff uses psychological/psychometric testing when there appears to be a need because:

1. There is a specific question that needs to be answered, including the individual's ability to concentrate, remember, think logically, manage financial benefits, read/figure, adapt/-adjust, and/or cope.
2. Data in the file is outdated, or seems to be outdated for some reason.
3. The individual has had possible involvement with head injury, alcoholism/substance abuse, emotional breakdown, psychotic

break, and/or deterioration in mental abilities.

4. There exists a need for individual factor/trait analysis including those of depression, hypochondriasis, emotional stability, maturity level, interpersonal relationships, chronic invalid role, self-esteem, sensitivity to secondary gain, stress/anxiety levels, malingering behaviors, social maladjustment, somatic complaints, pain involvement, conversions reactions, authority conflicts, adjustment reaction to adulthood, and/or possible family problems.
5. Behavior observation/worker characteristic information is needed, including the individual's attitude and cooperation, best effort, motivation, exaggeration/minimization of situation, ability to tolerate pressure, ability to comprehend and follow instructions, ability to relate appropriately to others, and/or ability to perform simple/complex tasks.

The work sample phase of our triadic assessment may be administered as either the second or final stage of the process. The decision as to the proper time to administer work samples will be based primarily on the quality and quantity of background medical information, the nature and degree of the client's impairments, and the evaluator's knowledge and understanding of the client's restrictions as it relates to the physical demands of jobs. In any case, the work sample phase would not be embarked upon until sufficient information had been accumulated (through background information, the initial interview, psychometric testing, etc.) to equip the evaluator to select work samples appropriate for the client. In other words, the work samples are not to be administered randomly or indiscriminately, but should be selected on the basis of the client's needs, interests, and abilities/limitations.

In addition, those work samples which will provide the types of information needed by the vocational evaluator should be selected. (Nadolsky, 1971)

Certainly, the standardized work sample has provided an important vehicle for gaining vocationally relevant information for many years. Their use plays an especially important role in the vocational assessment of the industrially injured worker. First, many individuals within this population (particularly unskilled and many semi-skilled "blue collar" workers) may not relate well to the "paper and pencil" format typically associated with psychometric testing. As defined in the VEWA Glossary (VEWA Glossary Committee, 1983), a work sample is "a well defined work activity involving tasks, materials and tools which are identical or similar to those in an actual job or cluster of jobs." This performance based, "hands on", experience with work samples provides a practical situation with which the industrially injured worker can usually identify readily.

For the adult client with prior work experience, the work sample can be very useful in evaluating whether the individual retains the ability to perform previous work skills or has lost that ability. When a determination is made that the client cannot return to a former occupation (or related job), the work sample becomes an important tool in assessing the injured worker's capacity and capability to acquire new work skills. In addition to the evaluation of specific work skills and/or more global worker traits, the work sample provides both the evaluator and the client the opportunity to observe and consider work behaviors and characteristics, client interests, and motivation. While working with an industrially injured population, these issues and concerns are particularly important for making appropriate recommendations and/or developing a realistic rehabilitation plan.

It is important to recognize that the work sample "experience" is often the injured worker's first real opportunity to view himself and learn about his "post-injury self" in relationship to work. Every effort should be made to make this a positive experience, and again, the selection of appropriate work samples is important. Specifically, an effort should be made to select work samples that will both challenge and interest the client in order to engage his/her motivation and best effort. In doing so the work sample "experience" will be maximized in terms of the work performance demonstrated and accuracy of information received regarding abilities and limitations.

Finally, work samples are designed to assess the behavior and abilities/limitations of an individual as related to the basic duties, equipment, and tools of a particular occupational area within a controlled environment. (Nadolsky, 1971) Ultimate success in relating the client's performance on work samples to performance in the actual work place will depend primarily on the experience and knowledge of the evaluator regarding the client's abilities/limitations, as well as the knowledge of specific job requirements and employer expectations.

The final portion of the triad consists of the work capacity evaluation (WCE). To define the meaning of work capacity evaluation, this writer shall use the definition provided by Dr. Leonard N. Matheson, Ph.D. in his manual, Work Capacity Evaluation, in which he states that the WCE is "A process of measuring and developing an individual's capacity to dependably sustain work performance in response to broadly defined work demands".

There is a definite correlation in our situation between measurement and development as it relates to the WCE. We try to look at the individual from the standpoint of capacity at the time of performance and to gain insight related to potential work capacity as indicated by our measures.

The demands of the WCE can be placed at many levels ranging from light to very demanding or in many cases from vocational classification, the heavy type of work situation.

Like any good vocational evaluation process, it begins with the vocational evaluation plan. Our basic concepts of the components of this portion of the assessment include:

1. Feasibility for rehabilitation/employment
2. Work capacity evaluation devices
3. Work tolerance screening - short term
4. Work capacity evaluation - long term
5. Work hardening
6. Vocational recommendations.

The question of feasibility for rehabilitation and/or employment is a measure that is part of the total rehabilitation process. We use questions of employability and skill acceptability to an employer.

Through the addition of this measure, we can gain further insight related to individual/productivity and knowledge of safety in the work place, and also gathering information about the individual's interpersonal behaviors in a multidimensional process. Behaviors and worker characteristics can be identified from either a positive or a negative standpoint.

The physical capacity evaluation is also an effective measure for building communication between a rehabilitationist and the rehab client. It helps us to gain information that will be important for further treatment, information that will be important to an employer, and information that can be verified through observation.

Determining whether an individual is ready for rehabilitation or employment is something that cannot be overstated. We are all aware of many cases where people were referred for services or employment with no knowledge of need or capacity. The work capacity evaluation process is just one more

building block related to good rehabilitation processing and positive outcomes.

The work capacity evaluation devices used include the WEST 2 and WEST 4 as manufactured by Work Evaluation Systems Technology of Huntington Beach, California.

The WEST 2 is a multi-purpose work capacity evaluation device which provides measurement of whole body range of motion under load. This device also aids in the simulation of work demands including postural tool usage when adapted and used with WEST 4. It provides information pertaining to worker safety and the proper use of body mechanics as well as symptom control techniques. Like many other of the evaluator's tools this work device is categorized using the standards of the U. S. Department of Labor.

The individual is allowed to work at various levels and weights depending upon their individual ability and capacity. The ranges of motion pertaining to each level and load are measured and reported by the evaluator. Specifics pertaining to symptomatology and pain, etc., are identified along with worker characteristics.

WEST 4 is a work capacity evaluation device used to measure upper extremity strength and fatigue tolerance. It also assists in the measurement of the ability to utilize hand tools and upper extremity work capacity. Torque and grip strength are important in this process as an actual work situation.

The individual works with wrenches and nut drivers in various positions with the evaluator adjusting the torque of the device. The specific measure is stopped at the point in time when the evaluatee can no longer use the specific tool. Torque and grip strength is subsequently measured at this level.

Work tolerance screening is a part of the work capacity evaluation. This is used to evaluate the person's capacity to perform work over a specific period of time. This is used in situations where a static rather than dynamic measure is needed and the information

provided is integrated into a full scale profile developed from the three segments of the total evaluation program.

As part of the process, the physical and psychological work performance factors are measured and the demands of the work situation are identified. The pace at which an individual works is also important in this process and gives us a baseline as it pertains to an individual's progress and assists us in predictive measures.

The work capacity evaluation-long term is the dynamic process built from the work tolerance screening. By having the evaluatee participate in specific measures over several days, we are in a much better position to determine what a person is capable of doing and measure the person's capacity to sustain work activity. Once the building blocks are initially laid, we are capable of looking at the individual in terms of positive or negative gain.

Work hardening as a part of the rehabilitation process is certainly nothing new. We use the work capacity evaluation and work tolerance screening in a manner to allow consistent positive growth. By developing and using the work capacity evaluation materials the ORC interdisciplinary team can make an effort to re-condition the injured party over the period of time designated in initial planning. Outcomes from this portion will hopefully allow the individual to condition himself to work activity and to be able to sustain activity without undue fatigue and/or pain.

In conclusion, we are interested in measuring the critical work demands in this phase. As professionals involved in vocational measurement and planning, we must assess those problem areas which produce symptoms that limit work tolerance. Through observation and feedback we can determine the individual's ability to dependably sustain work activity over a period of time. This assessment, under

load, assists the individual and the evaluator to make the best possible determination of vocational choices/needs.

By combining all three phases in this triadic approach we, as rehabilitation professionals, can, from a physical/psychological standpoint, profile the person by impairment, functional limitation, feasibility for certain work activities, potential employability and earning capacity. Taken together, these rehabilitation processes help us place the realities of physical activity and actual work in perspective.

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