

## **The Basics of Vocational Assessment**

### **A Tool for Finding the Right Match Between People with Disabilities and Occupations**

#### **What is the purpose of this paper?**

This brief paper is designed to offer guidance for the development of a vocational assessment programme for people with disabilities. This is not a comprehensive study of the field, techniques and issues involved but offers some guidance and addresses common questions about vocational assessment and designing a vocational assessment system.

The model described is a classical vocational evaluation model based on the concept of train/place. That is, first a person is assessed, trained and the placed in a job. Assessment is an important part of this approach to vocational rehabilitation and employment. According to the place/train model, assessment is less crucial. According to this approach an individual is placed in a supported employment situation with a job coach or other supports. He or she is assessed and trained on the job. The place/train model is more commonly used with people who have intellectual or psychiatric impairments, neurological problems, autism or other types of substantial disabilities.

#### **What is vocational assessment?**

Vocational assessment is the process of determining an individual's interests, abilities and aptitudes and skills to identify vocational strengths, needs and career potential. Vocational assessment may use a variety of standardized techniques (e.g., tests) or nonstandardized approaches (e.g., interviews, observing people). Vocational assessment is part of the vocational guidance process and usually results in recommendations for training or employment.

#### **Why conduct vocational assessment?**

Vocational assessment is used for different purposes and may differ according to a country's culture and social system. It may be used to determine a person's potential, the content of a vocational training programme, his or her employability or ability to adapt to different work environments.

Depending on the perspective, vocational assessment has many benefits. Vocational assessment assists an individual to make realistic job training and career choices based on their interests, aptitudes and abilities and the realities of the job market. It helps counselors, rehabilitation professionals and employment specialists work more effectively with their clients. It helps trainers and instructors adapt to the needs of the person with a disabilities. It helps administrators use resources more wisely. It helps employers make better hiring selections.

## **What are the differences between vocational assessment of disabled and nondisabled persons?**

Vocational assessment for people with disabilities should make use of the assessment procedures that are widely used in other assessment settings, such as schools, employment service and psychological settings. Sometimes these procedures need to be adapted for disabled persons. Additionally, specialized techniques and strategies have been developed for people with disabilities who seek employment or rehabilitation services.

Vocational assessment should focus on identifying abilities and strengths that can be used in training and work situations. It should compare these to viable job requirements and make recommendations. For people with disabilities, the recommendations may also include the need for support services, assistive devices, job accommodations or address other disability-specific issues that will further the person's training or job success.

## **What does the ILO standards say about vocational assessment?**

ILO Convention 159 concerning vocational rehabilitation and employment (disabled persons), 1983 and the related Recommendation 168 require that competent authorities should provide vocational guidance.

Recommendation 99 concerning vocational rehabilitation of the disabled spells out the following ten steps as part of the vocational guidance process:

1. An interview with a vocational guidance officer
2. Examination of record of work experience
3. Examination of scholastic or other records relating to education or training received
4. Medical examination for vocational guidance purposes
5. Appropriate tests of capacity and aptitude and, where desirable, other psychological tests
6. Ascertainment of personal and family circumstances
7. Ascertainment of aptitudes and development of abilities by appropriate work experiences and trial and other similar means
8. Technical trade tests, either verbal or otherwise, in all cases where such seem necessary
9. Analysis of physical capacity in relation to occupational requirements and the possibility of improving that capacity
10. Provision of information concerning employment and training opportunities related to the qualifications, physical capacities, aptitudes, preferences and experience of the person concerned and to the needs of the employment market.

These steps are described in the process of vocational assessment described below.

### **Who conducts vocational assessments?**

In many settings vocational assessment is carried out by a multidisciplinary team that may include, depending on the setting and person's disability, specialists from fields such as occupational therapy, rehabilitation medicine or psychiatry, psychology, social work, vocational guidance, education and rehabilitation. Employers or specialists from a technical field may also be involved.

In some countries or settings (such as a vocational rehabilitation facility), a specially trained vocational evaluator, knowledgeable a variety of disciplines related to assessment, conducts a vocational evaluation. Such evaluations are usually supplemented by assessments done by a psychologist, medical personnel or others depending on the person's disability.

Vocational assessment personnel should be knowledgeable about the labour market, job and training opportunities so that the recommendations they make are realistic.

The person with a disability should be kept fully informed about the processes and their purposes. Family members, employers, trainers or others may also be involved in the process.

### **What is assessed?**

In the narrowest sense, vocational assessments are usually concerned with the correlation between a person's abilities and skills and job requirements. However, since many issues other than skills and aptitudes influence job success, most vocational assessments take a more holistic approach.

The following is assessed as part of a comprehensive vocational assessment (assuming a medical or psychiatric assessment has already taken place):

- History, education, employment, background, etc.
- Psychosocial strengths and development
- Independent living skills
- Literacy
- Knowledge of the world of work
- Abilities/aptitudes
- Technical/ job skills
- Generic work behaviours (social, communication, etc.)
- Job seeking skills
- Job readiness

- Special needs

### **What are the techniques or methods used in vocational assessment?**

Vocational assessment includes a variety of methods and assessment techniques. Some are standardized and some are nonstandardized, that is are less formal and more subject to individual bias or educated judgment. As noted, standardized methods include various tests or work samples that have norms or averages form the general population against with the person's score or outcome is based. Nonstandardized methods may include observation of a person working. Nonstandardized methods are important and a mix of approaches will produce the best assessment.

Vocational assessment includes the following techniques and tools:

- Background information and reports of other professionals and the individual
- Interviews with the person with a disability and perhaps his or her family, former teachers, employers or others
- Checklists (for use by professionals or the individual being assessed)
- Vocational exploration and counseling to clarify goals and help direct the process
- Paper and pencil tests, including a variety of standardized psychometric and psychological tests (some which must be administered by a trained psychologist)
- Work Samples (work tasks that require individuals to perform work and compares his or her performance to that of others)
- Situational Assessment (observing people in work or training settings)
- Job-tryouts

### **What are work samples?**

Work samples are real or simulated work tasks that are used for both assessment and job exploration processes. By engaging in such tasks, the individual tests his or her ability to complete the tasks against a norm (collected data about the average performance of a certain population or normative group).

Through direct experience, the individual confronts his or own abilities and skills in relation to the task. The evaluator, through observation and a comparison to norms is able to make some assessment and judgment about the person's capabilities.

Work samples are commercially available and developed. For example, a company named VALPAR produces work samples in tasks such as sorting color tiles. Work samples can also be developed in response to assessment needs to local jobs. For example, an evaluator may develop a work sample related to filing, sorting, assembling a computer, using a sewing machine or sweeping a floor and so forth.

### **What is meant by situational assessment?**

Situational assessment involves placing the person in an actual work situation to assess their performance. Situation assessments are commonly used in rehabilitation facilities that have work shops and typically used to assess work behaviours, work tolerance, ability to follow instructions, work with others, etc. However such assessments can also be used to assess specific work skills and abilities. If a situational assessment is coordinated with specific job analysis (a checklist of sorts that outlines all the requirements of a particular job) it can be most effective in determining a person's ability to use a job.

Training centres and individual's classroom or experiential activities can provide a venue for situation assessment as well as vocational exploration.

A job try-out is like a situational assessment but it is usually at the end of the assessment process when the individuals is fairly certain about what he or she wants to do and seems to have all the requisite aptitudes, abilities and skills. The evaluator arranges for a short job try-out to determine if the person can do the job and if it is a good fit.

### **How are the methods used in assessment?**

A skilled and experienced evaluator will use the variety of methods noted, such as reviewing background information, interviewing, providing vocational exploration experiences, using tests and checklists as well as work samples, situational assessment, job try-outs and even individually tailored assignments to help a person determine the career potential and direction. The following are general approaches for each of the major areas of assessment.

### **How do you assess relevant psychosocial issues?**

Psychosocial factors refer the behaviours, attitudes and lifestyle conditions that can contribute to the individual's success in training or on-the-job. Some of these factors include:

- Motivation
- Self-esteem
- Social and communication skills
- Family situation

- Social life
- Personal stability and strengths
- Personality characteristics
- Problem solving skills
- Life goals
- Economic and financial situation
- Etc.

Many of these factors and their significance to the workplace will be culturally determined. However, they can be crucially important to success in the workplace.

These can be assessed by use of:

- Interviewing techniques
- Checklists (commercially available or designed to suit needs)
- Personality tests and inventories
- Psychological and aptitude tests
- Review of background information.

Note that many personality or psychological tests are culture bound and require administration by a trained psychologist.

### **How do you assess independent living skills?**

It is important to have some assessment of a person's independent living skills, such as:

- Self-care
- Grooming
- Ability to tell time and time management
- Ability to handle finances
- Ability to use transportation
- Ability to maintain a home
- Etc.

These can be assessed through various methods:

- Interviewing
- Checklists
- Paper and pencil tests
- Specially designed experiences
- Observation

## **How can literacy be assessed?**

Literacy levels, including math, reading/language and if needed, computer and foreign language literacy.

Tests are usually used to determine literacy level. Use whatever tests are commonly used in the country for the general population. Consult employers, schools and computer companies for tests related to computer or foreign language literacy.

## **How are interests measured?**

Interests refer to what a person wants to do.

Several methods exist for measuring interests:

- Interviewing
- Interest inventories
- A variety of vocational exploration activities
- Work samples
- Situation assessment
- Job try-outs

Interview techniques can be used to determine vocational interests. Many people who have not had experience or are not familiar with job opportunities will have limited exposure to the world of work to know what they would like to do. Interview techniques will have to include questions about past work and school work, hobbies, work experience both formal and informal to try to get at what interests the individual.

Many countries have interest inventories which are used to determine interest levels. Some are picture inventories for those who are illiterate; others are paper and pencil tests that ask individuals to respond to items.

As part of assessing interests and helping a person with a disability make career decisions, they need to understand the options available to them. Many may have not have had the experiences of learning about jobs or the world of work, or may assume that they cannot do certain types of jobs. As a result, it may be necessary to conduct some vocational exploration and counseling as part of the assessment process.

## **Why is vocational exploration part of the process?**

People need occupation information in order to make career choices or to know what they want to do. Their interests may point in the direction of career possibilities, however many disabled people have lacked the experiences that might expose them to the world of work and the possibilities that are available to them. For this reason, the evaluation process in some countries includes a process called vocational information.

There are many ways to assess a person's knowledge about jobs (interviews, checklists, etc.) and to help them explore job opportunities. The best thing to do is to determine what career guidance tools are used in schools and employment settings for a general population. Another is to use situational assessment, job try-outs, guided activities like having the person with a disability interview someone with a job they think they might like, arrange visits to training centres and work sites, for examples. Outside speakers and mentors can assist with the vocational exploration process. Job shadowing (the individual spends time just observing someone do a job that might interest them) is another technique. Many require employer support.

Without some knowledge of the possibilities the person with a disability will have difficulty in knowing about possibilities and what they want to do.

### **What types of abilities and aptitudes need to be measured?**

Abilities and aptitudes refer to natural talents or capacities, whereas skills refer to what a person has learned to do. Success in learning a skill is dependent on aptitudes and abilities. Some examples of aptitudes include intelligence and cognitive abilities, verbal, numerical, spatial, form and clerical perception, motor-coordination, finger dexterity, manual dexterity, eye-hand-foot coordination, colour discrimination, etc. Physical abilities, tolerance and stamina refers to another set of capacities.

- **Intelligence** is typically measured through Intelligence Quotient or IQ tests. Psychologists usually administer these tests. Other cognitive abilities such as learning ability, memory, concentration, and reasoning may require a psychologist or neuropsychologist for proper assessment if there appears to be significant loss in these areas of functioning.
- **Aptitude** is typically measured by a battery of paper and pencil tests, although some aptitudes can be measured through work samples and other means.
- **Dexterity, coordination and manual** abilities refer to a variety of aptitudes that require the use of body and are necessary for tasks such as use of the equipment, handicrafts, etc. They can be measured through tests such as the Purdue Peg Board which times the individual's completion of a manual task and compares it to a group norm. Many dexterity tests and work samples are commercially available. Others can be constructed locally.

- **Physical capacity or functioning** refers to an individual's ability to perform a range of physical functions such as sitting, standing, bending, lifting, range of motion for arms, etc.). Such assessments are needed for people with certain types of disabilities and are conducted by physical therapists, physicians, or in some cases by trained evaluators using commercially available work samples.
- **Work Tolerance** refers to how long and at what level of physical intensity a person can work. For example, can they work a full 8-hour day? This type of assessment is usually done by a skilled physiotherapist or in a situational assessment, such as a sheltered workshop, where people work and their capacity to perform and sustain work is measured.

### **What skills are measured and how is it done?**

Skills refer to what a person has learned to do. Successful skill development is often based on the existence of particular abilities and on successful training or life experiences. Specific technical or occupational as well as generic work and life skills are needed to success on the job. The types of occupational skills that are measured will usually be determined by the person's abilities, the outcome of the assessment to date and the type of job or career that interests them.

Skills as well as the knowledge of the process of how to apply skills (e.g., describe how you would fix a broken engine) can be measured in a variety of ways. These include:

- Interviewing
- Checklists
- Paper and pencil tests
- Trade tests
- Work sample
- Performance based tasks
- Situational assessment
- Job tryouts

Many companies have skill tests to determine if a person is skilled in the job duties. A typing test is an example of a simple skills test. Trade tests may also be available from associations, apprenticeship programmes, employers or other to evaluate capacity in a particular trade.

Work samples can also be designed to compare a person's performance to that of the average worker in the job. An easy example is piece rate in a textile situation. The performance of a person with a disability can be compared to that of the average worker to determine the level of his or her skill development. You might consider developing some work samples or tests that relate to specific and

common jobs in the country, such as sewing machine operation, computer operator, etc.

In evaluating the capacity of a person to do a specific job it is worthwhile to conduct a job analysis. On-the-job assessments with employers can be very useful for skills that are more difficult to assess in a testing situation such as cooking, meeting high-demand public situation, etc. and in many ways this is the best way to determine if a person can do a job. In such cases, you should provide the employer with a checklist or assessment, based on a job analysis. On the job assessment are also useful for assessing a person's generic or job readiness skills.

### **How are job-seeking skills measured?**

Job-seeking skills refers to all those skills needed to find a job, such as identifying job leads, making contact with employers, completing job application and interviewing to name a few.

Knowledge of these skills can be determined through:

- Interviewing
- Paper and pencil tests
- Observation
- Results of actual job searching

Proficiency and competency in these skills can only be determined through situation assessment and observation through role-play and real life experience and interviewing for job seeking skills.

### **What is job readiness?**

Job readiness refers to a series of criteria that may be culturally determined or dependent upon the availability on the job support services, which determine if an individual is ready for employment. These criteria could include things like:

- Has are a realist job goal
- Has transportation
- Is able to manage money
- Had good work habits and generic work skills
- Understands the work of work
- Has appropriate generic work habits and skills
- Etc.

Many organizations create checklists to assess job readiness. Aspects of job readiness are then determined through interviews, situational assessment,

observation and the entire assessment process that can culminate in a job try-out.

### **How do you assess for special needs?**

Before and throughout the assessment process, those involved in working with the disabled person should work with that person to determine what types of assistive devices or technology they need for independent living, training and employment. Once a specific job is identified or type of work, specific job modifications, support services or assistive devices can be identified with the evaluator or job placement specialist working with the disabled person and the employer to make the necessary determinations and adjustments.

### **Are there specific methods for assessing different types of disabled persons?**

For people who have limited intellectual capacities or verbal skills, paper and pencil tests, or interviewing may not yield the necessary information. Work samples, situation assessments and task and job try-outs may be most useful.

### **What kind of adaptations do people with disabilities require?**

People with disabilities may require a variety of adjustments in the assessment situation just as they might in the training and work situation.

Obviously those who are blind and visually impaired may require large print documents, print enhancers or Braille materials to complete certain activities and check-lists. Evaluators who can sign would need to work with hearing impaired persons. People with certain types of disabilities are at a disadvantage in completing certain types of tests such as psychological and others that are timed. However, amending time on standardized tests invalidates the results. Some experienced evaluators have found ways to adapt standardized tests so that they can still provide some needed information but many professionals would find this controversial.

Vocational assessment of certain disabilities groups is a specialized field and today, many people express concern that testing can be a way of screening people out of training, jobs and programmes, when with proper supports they could be accommodated and productive.

### **What about assessing for self-employment?**

Determining if someone is suitable for self-employment may also be culturally determined. In some rural areas of developing countries, self-employment and agricultural activities are the only option. In other settings, a self-employed person must show extreme motivation, independence, optimism and risk-taking capacity to succeed in business. The nature and size of the proposed business

will determine what personality traits are required, the technical skills and the business development skills needed for success.

In evaluating someone for self-employment their technical skills need to be assessed, as does the market to assure that a market exists for the proposed business. In addition, the individual's knowledge of the basic principles of profit, loss, credit, marketing and simple business practices should be determined.

Recommendations resulting from assessment could include referral not only for vocational training but to business development service centres, credit institutions, etc.

### **How can we learn more?**

In order to learn more, here are some suggestions:

- Online training. Several universities in the United States offer online training in vocational evaluation, however the training is offered in the English language. I suggest you identify a staff person who will become the government expert in this area, someone who knows English, and that the government sponsors them for training.
- Study tours. Several countries in the region have vocational training programmes.
- Consultant. The services a consultant could be secured to assist with training or setting up a programme.
- There are many Web sites to provide information. They are listed at the end of the document.

### **Overall Suggestions for Developing an Assessment Programme**

- Conduct Internet research. Many materials are available from Western countries and Japan, although the US, Canada, England and Australia are more likely to have materials available in English.
- Consult with local universities, educators, psychologists, and physical therapists, as well as private and public vocational schools and large employers to see what methods of assessment they are using, suggest, or might be interested in developing.
- Discuss with employers, especially those representing major job areas, such as garment work, and ask them what methods of assessment they suggest for specific skills as well as general work skills.
- Adapt assessment or testing procedures used with the general population if such exist.
- Use short term assignments in training classes, in real work settings, or even your office and ask work supervisors, trainers or your staff to evaluate a persons' performance according to preset criteria.

- Develop some simple work samples and tests (especially literacy) that can be administered in your office setting as part of the initial interview and assessment process.
- Develop checklists, goal setting and related tools that can be used by interviewers, trained observers, or the person with a disability for certain “soft skills” that are important to job success---these include communication, social skills, independent living, etc.

### **How do you assess trainers and employers?**

Since the government is looking to integrate students into mainstream vocational training, employment services and workplaces, I think it is critical to **assess the institutions and organizations that will receive them as trainees, clients or workers**. The success of integrating people with disabilities into mainstream vocational schools and service centres will depend on the awareness, receptivity and skills of the staff in these organizations. It is critical that they be trained, have the tools and are given adequate support to work with students with disabilities.

### **Web sites**

For continuing education:

<http://www.vecap.org/gwucourse.htm>

To learn about more than 4,000 commercially available tests:

<http://www.unl.edu/buros>

For information about commercially available work samples:

<http://www.valparint.com/index.htm> for VALPAR

<http://www.vri.org> for VITAS and Apticom

For information about assistive technology:

<http://cat.buffalo.edu/index.htm> University of Buffalo

<http://www.resna.org> Rehabilitation and Engineering and Assistive Technology Society of North America

<http://www.fernuni-hagen.de/FTB/AAATE.html> Association for the Advancement of Assistive Technology in Europe

For information about supported employment:

<http://www.worksupport.com/> Virginia Commonwealth University

Provider Web sites:

<http://www.crsrehab.com/index.html>

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