This report describes the role of the vocational evaluator in identifying technology that will assist the client in overcoming functional limitations. The traditional approach to vocational evaluation as well as problems with this approach, including the limitations of standardized assessment procedures, are discussed. The report then outlines a new approach that highlights the importance of identifying functional capacities and considering technology as a way to overcome functional limitations. The use of behavioral observation in assessing the potential need for assistive technology devices is also covered. Questions that vocational evaluators should consider in their evaluation are provided and steps they should take in consulting with the client after the formal evaluation are outlined. The report reviews the advantages of this approach to the client, the employer, and the vocational rehabilitation counselor. The relationship and complimentary roles of vocational evaluators and rehabilitation engineers are addressed under a section on territorial issues. (Contains 13 references.)

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ENHANCING THE ROLE OF VOCATIONAL EVALUATORS: SURVIVING IN A CHANGING WORLD

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Abstract

The traditional approach to vocational evaluation has consisted of identifying functional limitations, then selecting vocational fields for the client that do not require functioning in deficit areas. This approach is well documented in vocational evaluation reports, in VR Agency policy statements, and in work sample training manuals. However, with the advent of the Americans with Disabilities Act, this approach is no longer legal or valid. Vocational Evaluators are perfectly positioned to lead the Vocational Rehabilitation field in the introduction of technology to enable clients to perform jobs (often returning to their previous occupational fields) by identifying technology that will assist the client in overcoming his/her functional limitations. This approach will open many employment possibilities that have previously been closed to VR clients.

Vocational Evaluators are not expected to be Rehabilitation Engineers, just as they are not expected to be placement experts. However, evaluators are trained to recognize traits, to combine client abilities with job requirements and to make recommendations for vocational objectives. In order to ensure the survival of vocational evaluation as a profession, it behooves us to make ourselves indispensable to Vocational Rehabilitation Agencies. Utilizing the unique skills of the Vocational Evaluator, we must recognize when technology may be an appropriate solution. We should be able to envision the possibility of a device even though we are not called upon to design or fabricate the device. Once we have realized the vital part that evaluation can and should play in applying technology solutions to functional limitation problems, how do we put this into practice? Suggestions will be offered in terms of: recognizing opportunities for utilizing technology; information sources on assistive technology aids and devices; and suggested equipment listings for technology-related vocational evaluations.

Introduction - the Traditional Approach of Evaluation

Vocational evaluators are routinely asked to assess clients through psychometric testing, work sample administration, simulated job stations, on-the-job evaluations, and other techniques in order to provide case managers or VR counselors with documentation on the client's functional limitations. VR counselors use this information for a variety of purposes, including identifying vocational abilities and limitations, giving the client a more realistic understanding of his/her abilities, IWRP development, improving the likelihood of employment, and/or determining which services are needed, and others (Flynn, 1994). However, Schuler and Perez (1991) argue that "the proliferation of psychometric testing practices has served to restrict the lives of individuals with disabilities" and that the "focus on what someone cannot do, the preoccupation with norms, and the lack of concern for context is likely to undermine..."
perceived competence, as attention is being
diverted from more creative and adaptive
behaviors..." Traditionally, the next step for
the evaluator following assessment is to
eliminate all vocational objectives that
require functioning in deficit areas,
concentrating upon residual worker traits in
related occupational areas that minimize the
need for functioning in the deficit area under
consideration. There is some logic to this
approach in that it attempts to "salvage" the
abilities that the client still possesses and to
apply them to a "related" occupational field.

Problems with the Traditional Approach
of Vocational Evaluation

There are, however, problems with this
traditional approach to client assessment.
Langton (1991) states that traditional
approaches "were designed primarily to be
used without artificial aids or devices" and
that "this is reflected in strict standardization
practices and cautions in training about
'invalidating' normative data." Langton
further states that "standardized assessment
procedures and work sample systems
generally focus on what individuals with
severe functional limitations cannot do rather
than determine what they could be capable of
doing." Parhamovich (1993) states that by
modifying standardized assessment
instruments "evaluators may be able to
determine if the client can actually perform
the occupation with the modification or
adaption." Chubon, Stewart, and McGrew
(1991) stated that while vocational
evaluation practices have made some
improvements over the past few years, "there
are areas that have not kept pace," such as
"consideration of the extent to which
technology can enhance the functional
capacity of persons with disabilities..."
Schuler and Perez (1991) state that
evaluation has centered around a "deficiency
model" that focuses upon "symptomatic
deficiencies, which then become the focus of
remedial efforts, overlooking the adaptive
functions of the behavior of concern." For
example, a client who has years of
experience as a heating and air conditioning
system installer may be unable to lift more
than ten pounds following a heart attack.
Therefore, an evaluator may decide that the
client is unable to perform this kind of work
again, but perhaps can function as a
salesperson for a heating and air conditioning
company. However, if the decision is made
to change the client's vocational objectives,
ignoring ways that the client has attempted
to adapt his work methods and habits, the
client's skills, honed over a number of years,
will be effectively lost to the company. The
client may be a great mechanic, but poor
social skills may prevent him from being a
good salesperson. Additionally, the client
may feel that the decision, which affects the
rest of his life, has been taken away and
given to someone else to make in his stead.
Another problem with this approach may be
that the client who has 20 years' experience
in his chosen field, prevented by an injury
from returning to this field, has absolutely no
other skills. This could remove the client
from a job with a salary that keeps him and
his family comfortable to an entry level,
minimum-wage, highly unsatisfactory job
that doesn't pay the monthly bills. Traditional
evaluation practice has been, in many cases,
to find a job that the client can immediately
perform, with little thought given to career
development (Botterbusch, 1993). This
methodology "tends to legitimize the
isolation and segregation of individuals with
disabilities" (Schuler and Perez, 1991).

The traditional approach to vocational
evaluation was probably valid when it was
first conceptualized. However, with
continuing rapid advances in technology, this
approach can no longer be justified as the
only method. According to Langton (1991), "making occupational decisions without considering the potential impact of assistive technology will continue to perpetuate stereotyped vocational outcomes." If technology is not available to assist the client in overcoming functional limitations and if other accommodations are not possible, then steering the client towards employment in related occupations may still be the best option. However, the following suggested approach to evaluation should provide vocational evaluators with methods that will provide more satisfaction to all involved parties.

**Identifying Functional Capacities and Considering Technology Use**

Identification of functional capacities is the heart of any vocational evaluation. This is perhaps the essential job function of a vocational evaluator. Various methods are used to identify these limitations, but the most important tool that the evaluator has is behavioral observation. While the client's performance on standardized psychometric tests and on carefully normed work samples is important, it is nowhere near as important as is the evaluator's observations of the client's work habits, persistence, attitude, and other intangible but vital worker traits; "highly structured assessments do not take into consideration the type of adaptive problem-solving capabilities that are most critical to everyday coping skills and life satisfaction." (Schuler and Perez, 1991). Since vocational evaluators are in a position to observe the client's adaptive behaviors over an extended period, they are uniquely positioned to ask questions pertaining to assistive technology. Functional limitations can often be overcome through the use of assistive devices; Chubon et al. (1991) suggest that "the concept of matching abilities to jobs has been joined by the [concept] of adapting jobs to abilities..." Clients are often the best source of information on how they overcome their particular loss of function, often having functioned for years as their own adaptive technology experts (Williams, 1991). If the evaluator simply asks the client how he/she has attempted to compensate for the lack of a given function, chances are good that a great deal of time and frustration may be saved for the client and for the evaluator. If the client is unable (or unwilling) to verbalize what methods and/or devices have been used in the past, the evaluator will be able to obtain this information from observing the client during evaluation. If a task generally requiring two hands to complete is given to a client who has only one functional hand, how does the client complete the task? Is another body part (e.g., forearm, elbow, etc.) used to compensate for the other hand? Does the client manipulate objects well despite the loss of function? By observing the client's attempts to overcome the lack of functioning, the evaluator can begin formulating ideas as to what kinds of aids or devices may help the client to adequately perform tasks in spite of lost function.

**Effective Behavioral Observation and Assistive Devices**

Behavioral observation should not be confined to the evaluation period. How does the client interact with peers before and after evaluation? What behaviors are noted during breaks? Did the client bring any personal devices (purchased or homemade) with him? How does the client use objects to enable him to perform routine tasks? Many clients tend to act differently during evaluation than they do at other times. While they may attempt to demonstrate "correct" behaviors during formal evaluation, they will likely
revert to their usual methods of adaptation when they go to the soft drink machine.

Did the client utilize any devices that were available in the evaluation area to compensate for lost functioning? Do not limit your observation to assistive technology inventory devices. Although it is a good idea for evaluation centers to have a complete inventory of such devices, this is not always economically feasible. However, Langton (1991) stated that it is "reasonable to expect access to representative pieces of assistive technology" in evaluation centers. Whether or not the evaluation center possesses a representative sampling of assistive devices, a client who grabs a handy tape dispenser or stapler and uses it to hold a book open for reading is using an assistive device. If you ask this client if he has ever used an assistive device, he may tell you that he does not, primarily because the client is not thinking about assistive technology, he is merely attempting to function. As a trained observer, however, the vocational evaluator is constantly formulating ideas as to how utilization of assistive technology can permit this client to perform work in fields that may not be available to him without the use of an assistive device.

Even if there is no device available to the client either from the evaluation center inventory, from common office objects, or that the client brought to evaluation, the vocational evaluator can still formulate ideas for technology use. An astute evaluator can recognize that the client is having difficulty with his work sample slipping across the work surface even if there is no aid immediately available to alleviate this problem. The evaluator does not have to know what Dycem is or even that it exists; it is enough to know that the client could perform this job if something would keep his work sample stationary on the work surface. If there is any uncertainty as to the reason the client is having difficulty completing a task (if it is not evident through behavioral observation), it may become clear if the client is asked. Many times, the client will ask for an adaptation prior to beginning a task. The vocational evaluator should use all of this input to begin formulating assistive technology application possibilities.

**Client Consultation**

After the formal evaluation is completed, the next step is the consultation with the client.

- **First**, vocational options should be explored. It may be appropriate to begin by discussing interests, both tested and stated. Thoroughly explore the client's educational and vocational backgrounds, documenting all qualifying experience and noting the areas of required functioning for each listed occupation.

- **When exploring vocational options**, discuss job availability in the community. An ideal match which has been made between client and vocational objective is useless if the nearest "ideal job" is over 200 miles away.

- **Once the client's strengths and limitations are considered**, qualifying work experience and education has been documented, and the availability of suitable employment has been determined, the essential job functions of the chosen field should be carefully documented and discussed. Can the client perform these functions unassisted? If not, could a device assist in the
performance of these functions? This is where the evaluator's observations of the client's adaptive behaviors become a very valuable tool.

Careful analysis of the chosen occupation will permit the evaluator to isolate essential functions of the job; observations made in evaluation will provide information to the evaluator as to the client's ability to perform these functions with or without assistive devices.

If it is clear that the client cannot perform a function that is essential to the job, is it feasible to trade some duties with another employee? For example, a grocery store stock clerk may be unable to manipulate a 60 pound bale of sugar; however, if a co-worker loads the bales on a lift, the client can wheel the load to the appropriate location, open the bale, and easily handle the 5 pound bags of sugar inside. The client could take over some of the co-worker's inventory and ordering duties to compensate for time spent helping with his job.

It is vital for the evaluator to meet with the client after evaluation to discuss the client's abilities and functional limitations. These should be discussed in the context of the client's chosen vocational objectives. With or without assistive technology, it may be that some occupations are simply not realistic, and the client should be made aware of this prior to his next meeting with the VR counselor. Carefully discuss the requirements of any realistic vocations with the client, and focus on ways that the client can adapt his/her behavior with or without assistive devices to successfully complete assigned job tasks. Add your own ideas about technology to the client's.

Counselor Consultation/Report Production

Once vocational objectives have been agreed upon, the evaluator should meet with the VR counselor to discuss the client's strengths and limitations. This is also the time to discuss the client's adaptive behaviors, motivation, attitude, and other intangible attributes that would be assets to the client in becoming successfully employed. Since neither the VR counselor nor the evaluator are rehabilitation engineers, specific technology applications will probably not be discussed at this point; assistive technology may only be discussed in general terms. It is incumbent upon the evaluator to take the technology lead at this point; doing so ensures that technology is routinely considered for each client who undergoes evaluation. Accordingly, the evaluator should list occupational fields that should be considered if assistive technology is feasible (i.e., available, reasonably cost-effective, pertinent to the job, etc.) along with occupations that are available should technology to overcome limitations to the essential functions of the job be unavailable. At this point, the evaluation report is produced.

What Are the Advantages?

Benefits of this approach are shared by the client, the employer, and the VR counselor. The client is more likely to come away from the evaluation with a sense of inclusion. The client's job experience has been acknowledged and is considered a usable asset; contrast this with an approach that basically tells the client "well, you used
to do that, but you can't do it any more. Let's concentrate on a job that may not be exactly what you want, that pays minimum wage, that has no chance for advancement, and that you find totally unsatisfactory. But hey, you're working."

The inclusion of technology in the client's evaluation opens up more vocational options, since many vocations that would be unthinkable without technology suddenly become feasible. The client may be able to return to previous employment; if this is not possible, the client's previous experience will serve to make him more marketable in seeking other employment. If jobs that can be performed with the assistance of an aid or device are added to the list of jobs that the client can perform with residual functioning, it stands to reason that this will be a much longer list. Assistive technology opens the possibility that the client will obtain employment in line with his interests, skills, and abilities; this will create a more favorable impression of the evaluation process.

In cases where a client is returned to former employment, both the client and the employer are likely to benefit. The client is able to retain any seniority and company benefits; the employer is able to retain a valued employee whose work habits and expertise are known factors. Additionally, the employer is spared the expense of training a new employee, who may need several years to gain the expertise of his predecessor.

VR counselors can benefit from this process, primarily by having more options for providing substantial services. A VR counselor who demonstrates cost-efficient ways to comply with the ADA will be considered a valuable asset by employers, who tend to fear that ADA compliance has to be expensive. Clients may be more likely to feel that their concerns were heard and addressed if the VR counselor is able to assist them in obtaining employment in a satisfying occupational field. Additionally, VR counselors are more likely to value evaluation services as outlined above, since the evaluator is addressing technology issues, freeing the VR counselor to concentrate on counseling and guidance, follow-up services, employer contacts, job development, etc. These areas are established VR counselor strengths; behavioral observation and job analysis are strengths of the evaluator. By utilizing these strengths, evaluators are in a position to make their services more valued to clients and counselors.

"Territorial" Issues

If the vocational evaluator takes such a lead role in the introduction of technology in serving clients, what is the role of rehabilitation technology specialists such as the rehabilitation engineer, and how do the roles complement each other? Rehabilitation engineers are generally not as plentiful as evaluators. Accordingly, is not always easy to obtain their services in a timely manner. Also, they tend to deal with very specific aspects of service delivery. A vocational evaluator may recognize the need for some sort of lifting device, but the rehabilitation engineer will not be able to provide much assistance until a specific job is identified. Therefore, the evaluator, calling upon his/her ability to identify essential job functions and acting as the result of direct behavioral observation, concentrates upon general areas for device utilization during the career exploration/feasibility phase. The rehabilitation engineer, on the other hand, typically becomes involved much later in the process, acting only when called upon by the VR counselor or other staff member once a specific job has been identified. The rehabilitation engineer is then responsible for setting up worksite accommodations.
Summary

If vocational evaluation is to continue as a distinct entity in the vocational rehabilitation process, its territory must be firmly established. This may be best accomplished by relying upon traditional strengths of evaluators coupled with the continuously emerging field of assistive technology. Evaluators are perfectly positioned to take the technology lead, having the advantage of extended behavioral observation. If any professional in the vocational rehabilitation process is in a position to ensure that assistive technology is consistently introduced into the process, it is the vocational evaluator.

REFERENCES


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