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AUTHOR Gourlay, Traci  
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 INSTITUTION Vocational and Rehabilitation Research Inst., Calgary (Alberta).  
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## ABSTRACT

Quantitative assessment instruments have been developed to identify those skills or behaviors which individuals with developmental disabilities need in order to become competitively employed, and to measure individuals' progress in the program and hence measure program effectiveness. Such assessment instruments are problematic, as each employment situation uniquely requires its own particular combination of skills. An attempt to apply quantitative assessment tools in a supported employment situation found that: (1) no job situation existed which required clients to demonstrate many of the skills or behaviors listed on the assessments; (2) some skills/behaviors listed on the assessments were irrelevant to the job situation; and (3) other relevant skills/behaviors were not listed. The second purpose of assessments, the measurement of program effectiveness, is only appropriate for groups of subjects and does not appropriately measure program effectiveness for individuals. Nor is the use of single subject designs appropriate, as they call for treatments that are introduced either systematically or randomly. A qualitative process model is suggested, where the actual process of implementing the model reveals the relevant variables of the job situation. Items in a qualitative assessment are not quantified but serve as reminders of important factors to be considered. (JDD)

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**Examining Community Employment Programs  
for Persons with Mental Retardation:  
A Comparison of Quantitative and Qualitative Research Approaches**

Traci Gourlay

The Vocational and Rehabilitation Research Institute  
3304 - 33rd Street N.W.  
Calgary, Alberta, T2L 2A6

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### Abstract

The utility of quantitative approaches (i.e.-assessment measurements) for facilitating employment for persons with developmental disabilities (DD) was explored. Examples were provided using an individual's data from an employment program which incorporated the use of assessments. Assessments were concluded to be problematic in terms of ; (1) identifying skills or behaviors which will facilitate an individual's employment and, (2) measuring an individual's progress or program effectiveness. A qualitative process model is proposed as a viable alternative.

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Examining Community Employment Programs  
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The recent trend toward moving vocational training for persons with developmental disabilities (DD) into community based employment settings, has encouraged a substantial amount of literature recommending various implementation strategies for such programs (Pankowski & Rice, 1985; Wehman & Kregel, 1985; Rusch, Martin & White, 1985). Strategies for implementing community-based employment programs are intended to bridge the gap between an individual's attributes and the demands of their work environment. To facilitate this, investigators have developed a proliferation of assessments intended for use in the implementation and evaluation of such programs (Malgady, Barcher, Davis & Towner, 1980; McDaniel & Flippo, 1986; Moon, Goodall, Barcus & Brooke, 1985). These assessments are usually intended to serve one of two purposes: (1) to identify those skills or behaviors which the individual needs to develop in order to become competitively employed or; (2) to serve as a measure of the individual's progress in the program, and hence measure program effectiveness.

The practical application for such assessments would involve practitioners assessing an individual to determine skills

he or she is lacking in or maladaptive behaviors the individual needs to eliminate to become employed. The practitioner would then develop a training program which would target the identified problem skill or behavior. Once the individual has achieved a desired configuration of skills and a repertoire of adaptive behaviors, he or she should be employable.

Unfortunately, the assumptions underlying such assessment instruments are problematic. Investigators have tried for years to identify a list of skills or behaviors to predict vocational success or failure (Foss & Peterson, 1981; Mueller, Wilgosh, & Dennis, 1987; Hanley-Maxwells, Rusch, Chadsey-Rusch & Renzaglia, 1986). Although the literature points to a variety of community-relevant vocational and social survival skills deemed necessary for individuals to enter and remain in competitive employment (Rusch & Schultz, 1979; Sowers et al., 1979; Wehman & Hill, 1980), there is no unanimity as to which particular skills are necessary for vocational success (Groeneweg, Gourlay, Perkins & Gibson, 1987). The large variety of skills measured across different vocational assessments also suggests that the relevant skills are not known.

In light of the aforementioned problems with vocational assessments, they do not accomplish what they propose to do. Each employment situation uniquely requires its own particular combination of skills. In fact, many assessments acknowledge the unique needs of a particular employment setting by leaving room

for the practitioner to add any additional "skill requirements" which may not be included in the existing list of assessment skills, yet are pertinent to particular work environments (eg. Moon, Goodall, Barcus & Brooke, 1985; White & Rusch, 1983a; Rusch, 1986). Although authors of such instruments recognize that the assessments may not contain an exhaustive list of skills or behaviors necessary for any work environment, they do, however, unrealistically assume that there are certain skills or behaviors universally applicable for all individuals and work settings.

This tendency to attempt to develop a predetermined set of skills necessary for competitive employment seems to be a carry-over from the traditional approaches to vocational training. Conventional models assumed that by training individuals in an institutional setting according to a prerequisite set of skills, the individuals would become "job-ready". That model met with limited success (Kiernan & Stark, 1987; Rhodes, 1986; Wehman & Moon, 1965). The current "supported employment" model assumes that individuals can be placed in the work environment prior to being job ready. Despite, this new approach to employment, professionals in the field are still attempting to determine a prerequisite set of skills which will ensure employment for individuals with dd.

Through an example we will illustrate some of the problems that we experienced when using assessments to implement and

evaluate one of our supported employment projects. Ray, a client at Calgary's Vocational and Rehabilitation Research Institute was placed in a furniture manufacturing shop. We assessed Ray on the job site with the Vocational Adaptation Rating Scale (VARS), (Malgady, Barcher, Davis & Towner, 1980) and the Community Integrative Scale (CIS) (The Vocational and Rehabilitation Research Institute, 1985). We wanted to find out what skills or behaviors we should focus on in Ray's training program in order to maximize his chances of employment. The VARS assessment listed over one hundred maladaptive behaviors. These behaviors had been previously identified to jeopardize employment for persons with developmental disabilities. After finding out what behaviors threatened Ray's employment, we could try to minimize, and hopefully eliminate those behaviors through an appropriate training program. The CIS listed a variety of skills and behaviors assumed to be critical to an individual's successful employment in the community. Again, by assessing Ray on the CIS we hoped to determine needed skills for the development of an appropriate program.

The first problem we encountered was that we could not evaluate Ray on many of the skills or behaviors listed on the assessments because there was no situation which required Ray to demonstrate such skills or behaviors. For instance, one of the skills listed on the VARS was - "fails to stand up for one's rights". Ray was never in a situation that required him to stand

up for his rights. Consequently we could not assess Ray on this item, hence making it difficult to determine whether or not we should train Ray in this particular area.

Another problem we had with the assessments was that they failed to address some of the areas which threatened employment for Ray. For example, one problem for Ray was that he never smiled. Consequently, he appeared angry and intimidated his supervisors. Ray's large stature compounded the problem. When his supervisors would ask him if everything was alright, he would stare back with a very serious look on his face, and in a deep voice answer "yes". This response intimidated his supervisors. Despite the clear negative impact of this behavior regarding employability, it was not listed on any of the assessments we used.

In some cases, the problem was reversed. The skills or behaviors listed on the assessments were irrelevant to the job situation. Ray scored low on several assessment items dealing with conversational skills including "initiating and interacting with others" (CIS). However, for his job this skill was not important. He was working alone at his work station and most of his co-workers were Vietnamese, who did not speak English.

Thus, the assessments used did not provide us with the instrumentation needed to develop an appropriate program for Ray. Because we could not obtain a measure for Ray on several skills and, neither the list of adaptive skills nor the list of

maladaptive behaviors were complete; nor were all items of the instruments relevant for Ray's particular work environment, we found that the assessments were inappropriate for us.

As mentioned at the outset, the ability to identify the skills necessary for competitive employment, is only one of the important purposes of assessments. The second purpose of the assessment to be considered here is the measurement of program effectiveness. A program may be considered as a treatment and the effectiveness of such a treatment may be measured by first determining pre-treatment behavior and then post treatment behavior. A comparison of the two should give an indication of program effectiveness (Posavac & Carey, 1985). Unfortunately, such designs are only appropriate for groups of subjects. Change in any individual may be due to random variations or the influence of extraneous variables. Since we wished to determine effectiveness for individuals such designs were not appropriate. Even if groups of subjects would be available, assessment instruments that inadequately measure the pre-treatment situation can not be expected to be appropriate for the measurement of change.

Another strategy to measure program effectiveness may be through the use of single subject designs. For these designs, a stable baseline of behavior is established, then treatments are introduced either systematically or randomly. A co-variation between treatment and absence - of - treatment measures allows

for an inference regarding treatment effectiveness (Conrad & Maul, 1981). However, assessment instruments of the kind discussed here have little utility for such designs. For such designs, the behavioral measure has to be relatively precise and appropriate to the treatment considered. Also, employment programs of the sort considered here do not easily lend themselves to the design - i.e. programs are not usually introduced repetitiously in a systematic or random fashion.

We will again illustrate some of the problems we had when trying to evaluate Ray's progress and hence, the effectiveness of the program. First of all, Ray's skills and behaviors seemed to be quite dependent on his environment which made it difficult to assess whether changes in Ray's behaviors were due to the program or environmental circumstances. For instance one of the behaviors on the VARS was "displays physical and/or emotional outbursts, or is withdrawn". At one point in the program Ray became withdrawn. From talking to Ray and the program manager, we concluded that Ray's behavior was a response to not being allowed to handle his own money at home. Thus the program may have had no bearing on this behavior. It was more likely a response to a change in his home environment.

In addition, as we have seen that skills or behaviors on the assessments were not necessarily important to Ray's job. Thus, improvement on such skills may not mean increased likelihood of employment, and hence program effectiveness. For instance, if

Ray's conversational skills increased on the post assessment, Ray did not necessarily progress because conversational skills had nothing to do with continued employment.

The message is clear. Assessment instruments of the kind considered here have little utility for supported employment models and attempts to introduce them to the field of rehabilitation should be carefully evaluated.

Each employment situation is a matter of unique and largely unknown person and situation characteristics. At this time we do not have enough experience nor information to allow predictions of success based on previous performance in various work situations. The reason seems to be that persons with (DD), quite contrary to popular opinion, are quite adaptive to situations so that behaviors across situations are not constant and are therefore unpredictable. Therefore, serendipity rather than predictions and control seems to be the guiding principle. Perhaps with enough experience in the field, factors which are constant over situations and persons will emerge. These would then provide a starting point for a predictive model and assessment.

In the meantime, a qualitative process model may best serve our purposes. The model is qualitative because the items on the lists are usually not quantified. Such lists are important only to serve as reminders of important factors to be considered.

The model is a process model because only the actual process

of implementing the model reveals the relevant variables of the situation. Although an employer may insist that certain vocational skills are most important to the job, after working in the job setting the individual may find that other related skills may be crucial. Such information usually reveals itself by the process.

A persons' orientation to such model should be that of an explorer rather than that of someone who knows the terrain. What is important is to gather available information, to initiate the process, to be open to new information, to take time to evaluate what is happening, and to be ready to train, counsel or teach as the situation requires.

In Ray's case it was important that problems were recognized as they developed, and that people and resources were available to deal with these problems. In our case, social skills classes were held weekly and resembled group counselling sessions. In them, the instructor made an effort to find out what was happening with each individual, thus addressing current problems and concerns as they arose.

In conclusion, our experience has shown that assessments are neither necessary, sufficient, nor desirable for the supported employment model. We will, one more time, draw upon our experience with Ray to illustrate this approach. With Ray, assessments were not doing what we wanted because: (1) we could not get an accurate assessment say on all of the skills or

behaviors listed on the assessment, (2) the assessment instruments missed relevant skills and behaviors which were important for Ray, (3) we wasted time assessing and/or training him on skills or behaviors which were not important to Ray's employment, and (4) we were not able to measure Ray's progress in the program or the effectiveness of the program.

The qualitative process model, on the other hand has several advantages: It's time efficient because time is not wasted assessing and training skills that are not important. Since it is time efficient it is also cost efficient. The program is tailored to each employment situation and recognizes that each individual, each employer and each set of job demands are unique. It is motivating for the individual because needs and demands of the situation are taken into consideration. Consequently, individuals are given more ownership over the program.

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