

# Assessment Techniques for Winning Outcomes in Health Training Programs

Leila J. Darress, PT

Mary B. Sylvester, C.V.E.

## ABSTRACT

In 1996, a new Physical Therapist Assistant program and vocational assessment services providers began an experiment using assessment techniques to identify factors contributing to retention and successful program completion for community college students enrolled in the program. Through the use of various assessment techniques, student profiles were developed and compared to the DOT profile of physical therapist assistant (medical services 076.224.010), and to competencies criteria. It was important to identify factors contributing to a good match between the student and the occupational demands for several reasons. These reasons included performance based funding requirements, a limited number of slots for a large number of applicants, expectations from local health organization funding partners for the program to produce job-ready graduates within a two year period, and the inability to replace student dropouts in midstream. Although a formal statistical analysis of results has not been conducted, some trends have been identified over a three year period that appear to be related to student retention and program completion.

## INTRODUCTION

In 1996, Indian River Community College in Fort Pierce, FL, initiated an A.S. degree Physical Therapist Assistant program in partnership with local hospitals, clinics, and other rehabilitation providers. Successful retention of students in both the classroom, lab, and clinical education phases is extremely important because the number of students slots is limited to 24 students and dropouts from the program cannot be replaced in midstream by new applicants.

As is the case with most health sciences programs, the physical therapist assistant (PTA) program uses selective admission criteria. The new program director was concerned that selection criteria were limited to prior grade point averages and scores on an Allied Health Aptitude Test. There was a need to develop student profiles and to compare these individual vocational profiles with both the demands of the training program and the competencies needed in the occupation of a physical therapist assistant.

A national study identified seven risk factors for persistence and attainment of a postsecondary two year or four year degree: (1) not having a high school diploma, including those who received a GED instead of a high school diploma (2) delayed entry into postsecondary training after graduation

from high school (3) financial independence (4) having children (5) being a single parent (6) attending less than full time during the first term (7) working 34 or more hours a week while enrolled in postsecondary training. Less than half (43%) of the students with three or more risk factors completed the programs they had begun. Two-thirds of those entering four year institutions had no risk factors at all, as compared with about one-quarter of those entering two year institutions. (National Center for Education Statistics, 1996).

Since a number of the applicants for the physical therapist assistant program had several of these risk factors at the time of entry, it became even more important to identify additional factors which could be related to retention and completion of training.

## Method

### *Assessment Instruments*

A variety of assessment instruments have been used during this experimental phase of the project. There are many assessment instruments which could be effectively used. The specific instruments used were selected primarily for their adaptability to site specific conditions such as time required to administer, cost, and applicability to group administration. Two of the instruments, the *LASSI* (Weinstein 1987) and the *Working* inventory, (Miles, 1996) have results which are based on student self-report. It is recognized that such instruments may have inconclusive results related to lack of student insight or responses based on "this is what I should say." One student who has had significant risk factors not identified by assessment instruments later admitted that he based his responses on what he felt were the responses he "should be

giving" rather than on his actual self-assessment. For further details on the instruments which have been used, the reader is encouraged to contact the authors. The instruments have been chosen in an attempt to generate a student profile and to determine the degree of match between the student's profile and the demands of PTA classroom training, the clinical education phase, and the occupation of physical therapist assistant. The purposes of generating a profile are to give the student and instructors additional information on strengths, weaknesses, and potential risk factors related to successful student and program outcomes. The project is operating on the belief that greater student self-awareness and instructor awareness of potential risk factors at an early phase of the program will contribute to developing interventions to reduce dropout rates and improve program outcomes.

### *Year 1 Assessment Techniques*

All 24 students in the first PTA class agreed to voluntary participation in the Health Sciences Career Assessment. Areas of assessment included interests, aptitudes, personality styles, learning styles, and learning and study strategies. Following the assessment, students were encouraged to meet individually with the vocational evaluator to discuss the results. Eleven of the twenty-four students took advantage of this opportunity. When potential academic problem areas were identified, students were given information on campus and community resources which could provide assistance. During the assessment results review session, the students spontaneously and voluntarily relayed information about themselves regarding prior educational and employment history, personal problems, and status of family support systems. The vocational evaluator identified

three students as having risk factors which could adversely impact retention and completion of the program. The first student had the following risk factors; low score on information processing ability, and difficulties in keeping up with academic assignments which involved extensive reading. The second student had a low score on the motivation scale, a high anxiety level related to academic assignments and test situations, and her reason for applying for the PTA program was primarily due to family pressure rather than personal choice. The third student had assessment results which indicated problems with anxiety, motivation, information processing, recognizing the main idea in reading assignments, knowledge of study aid support techniques and materials, reviewing and preparing for classes, knowledge of test strategies and preparation for tests. This student also reported several unsuccessful attempts in other health programs and an unsuccessful job history due to inability to adequately cope with on-the-job stress. These three students were among the six students who did not successfully complete the first semester of the PTA program, and did not meet with the vocational evaluator to review their career assessment results. A review of the assessment results for these three students suggested the following risk factors. The first student had a low score on the *LASSI* motivation scale and social occupations (Holland "S" code) was not one of the top three interest areas. The second student had a low score in knowledge of how to effectively use study aids and other academic support techniques. The third student did not have "S" as one of the top three Holland interest codes. In summary, each of the six students who did not successfully complete the first semester of the program had at least one potential risk factor.

The risk factors which were arbitrarily identified for the experimental project were

scores below the 50th percentile on any of the 10 scales measured by the *Learning and Study Strategies Inventory (LASSI)*; (Weinstein, 1987) not having "S" as one of the top three interest areas on *Holland's Self-Directed Search*; (Holland 1994), a prior history of lack of success in training programs or employment; the decision to apply for entrance into the program was primarily due to the suggestions of others rather than personal preference, and below average aptitude scores on the *Career Abilities Placement Survey (CAPS, 1976)*.

### *Year 2 Assessment Techniques*

Since additional potential risk factors had been revealed in the review of results with the students in Year 1, it was recommended by the vocational evaluation team that a structured, formal interview should be incorporated into the assessment process in Year 2. A structured, written interview form was developed using queries which were considered to be vocationally relevant and related to successful program outcomes. The standardized interview and assessment results were used to develop student profiles. Twenty-three students in the second PTA class agreed to volunteer participation in the second phase of the Health Sciences Career Assessment process.

Immediately following the structured interview and career assessment, the vocational evaluators divided the second class into three groups; students with multiple risk factors, students with minimal risk factors, and students with no risk factors identified. Four of the six students in the multiple risk factors category were program dropouts. Three of the dropouts had no prior experience in other health sciences training programs or

occupations. Several had below average aptitude scores in verbal reasoning and language usage. Five of the students had multiple problem areas indicated on the *LASSI*. In addition, vocational evaluators suggested potential communication difficulties, time management difficulties, or lack of personal responsibility characteristics as potential risk factors for two other students who were not dropouts. The same risk factors which were observed in the initial assessment phase were later observed in the clinical experience phase of the program for these two students.

### *Year 3 Assessment Techniques*

The same assessment techniques which were used in Year 2 were used in Year 3. Recently, the "*Working*" Inventory was administered to members of the 1997-98 class. In the future, this instrument will be used to compare student perceptions of their working styles in the clinical phase of the program with their clinical instructors' ratings on the "Clinical Education Performance Criteria."

At this point in time, (March 1999), six students in the current Year 3 class have withdrawn from the program. The first student had seven out of ten *LASSI* scores below the 50th percentile. The second student had considerable difficulty in communicating clearly, understandably, and concisely in the assessment interview and had *LASSI* scores indicating low motivation and high anxiety. The third student had three *LASSI* scale scores which indicated low motivation, high anxiety and limited knowledge of study aids. The fourth student had three *LASSI* scale scores which indicated difficulties with attitude and knowledge of test taking strategies. The fifth student had a *LASSI* score indicating difficulties with information processing. The

sixth student did not have any risk factors identified through assessment. Her reported reason for withdrawal was that she was a single parent and could not handle the program demands.

Table I contains the *LASSI* profiles for students who dropped out of the program during the three year period.

## **Preliminary Results**

At the present time the project has not conducted a formal statistical analysis of the data. However, over the three year experimental period, some trends have emerged which are believed to merit further research. Certain assessment measures appear to be closely related to specific classroom and clinical education performance criteria developed by the Physical Therapist Assistant Program.

### *Clinical Education Performance Criteria*

#### I.A. Communication

1. Utilizes written communication  
Related to: *CAPS* Verbal Reasoning (VR), Language Usage (LU), and Word Knowledge (WK)

2. Utilizes verbal communication  
Related to: Vocational Evaluator rating of responses during structured interview

#### II.B. Interpersonal Relationships

3. Establishes and contributes positively to interdepartmental relationships

4. Establishes and contributes to intradepartmental relationships  
Related to: *Working Inventory* (Working in Teams), *Vocational Implications of Personality* (VIP)

### III.C. Implementation of Treatment Program

1. Consistently performs program as related to plan.  
Related to: *LASSI* (Time Management), (Information Processing), (Motivation)

2. When indicated, contacts appropriate departmental personnel.  
Related to: *LASSI* (Information Processing); *Working* (Responsibility)

3. Demonstrates critical judgement in regards to the needs of the patient.  
Related to *CAPS* (Verbal Reasoning); *LASSI* (Information Processing); *Working* (Responsibility)

4. Uses appropriate methods of instruction and feedback to ensure correct performance of the procedure  
Related to: Related to *CAPS* (Verbal Reasoning); *LASSI* (Information Processing); *Working* (Responsibility)

### V. Personal and Professional Qualities

E.1 Demonstrates Appropriate Initiative  
Related to *LASSI* (Motivation, Attitude); *Working* (Quality, Taking Responsibility)

E.2 Exhibits Good Judgement  
Related to: *CAPS* (Verbal Reasoning); *Working* (Problem Solving), *LASSI* (Information Processing)

E.4 Exhibits Flexibility  
Related to: *Working* (Change)

E.6 Demonstrates Resourcefulness  
Related to: *Working* (Problem Solving), *LASSI* (Information Processing, Selecting the Main Idea)

### F. Ethical and Professional Responsibilities

F.2 Is Committed to Fulfilling Professional Responsibilities  
Related to *Working* (Responsibility), *LASSI* (Attitude, Motivation)

F.3 Demonstrates Commitment toward continued Professional Growth  
Related to *Working* (Learning), *LASSI* (Attitude, Motivation)

### VII. Administrative Skills

G.1 Organizes time effectively  
Related to: *LASSI* (Time Management)

### *Conclusion and Suggestions for Future Research*

In 1992, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) identified workplace skills that workers would need in the 21st Century (SCANS/2000 1992). SCANS consists of five workplace competencies and a three-part foundation of

skills and personal qualities needed for solid job performance. The five workplace competencies include (1) ability to use resources, (2) interpersonal skills, (3) using information (4) understanding systems (5) applying technology. The three-part foundation skills include (1) basic skills in reading, writing, arithmetic/mathematics, listening and speaking (2) using thinking skills for learning, reasoning, thinking creatively, solving problems (3) personal qualities such as responsibility, self-management, self-esteem, sociability, and integrity.

Trained, experienced, and professionally certified vocational evaluators can make meaningful contributions to this rapidly emerging need for identifying and measuring workplace competencies to better integrate training with workplace demands. In order to develop other venues for career assessment services, professional members of organizations such as VEWA and the National Association of Workforce Development Professionals will need to become more aware of assessment resources which appear to have potential for measuring workplace competencies. Assessment instruments which have been primarily used in private industry or technical training settings may have exciting implications for assessing and developing workplace competencies for special needs populations such as welfare-to-work participants and persons with learning disabilities. Examples of such instruments are *Workplace Success Skills* developed by Learning Resources, Inc.; *AES Skill Coach* developed by AES International; and *The Career Transcript System* developed by Johns Hopkins University.

TABLE I  
DROPOUT PROFILES  
(L.A.S.S.I.)

YEAR 1										
Student	ATT	MOT	TMT	ANX	CON	IN?	SMI	STA	SFT	TST
1		X		X		X	X	X	X	X
2	X									
3	X	X		X						
4		X				X				
5								X		
6										
No S Interest										
YEAR 2										
1		X	X	X	X	X		X	X	X
2				X		X	X	X	X	X
3				X	X		X			X
4		X		X		X	X	X	X	X
YEAR 3										
1	X			X	X		X	X	X	X
2		X		X						
3		X				X		X		
4	X									X
5						X				
6										

### References

*Career Ability Placement Survey (CAPS)* (1976) San Diego, CA: EdITS/Educational and Industrial Testing Service.

Haight, P.A. Hill, L.A. Walls, R. T., & Nardi, A.H. (1998) *Improved Learning and Study Strategies Inventory (LASSI)* and Academic Performance: The Impact of Feedback on Freshmen. *Journal of First-Year Experience and Students in Transition*, 10 (2), 25-40.

Holland, J. L. (1994) *SDS (Self-Directed Search, Form R, 4th Edition*. Odessa, FL: PAR (Psychological Assessment Resources, Inc.)

Miles, C. & Grummon, P. (1996) *Working: Assessing Skills, Habits and Style*. Clearwater, FL: H & H Publishing.

National Center for Educational Statistics  
(1996). *Descriptive Summary of 1989 -90  
Beginning Postsecondary Students: 5 Years  
Later*. Available: <http://nces.ed.gov>. NCES  
publication number 96155.

SCANS/2000, (1992) Baltimore, MD:  
Institute for Policy Studies, Johns Hopkins  
University.

Vocational Implications of Personality (VIP)  
Jacksonville, FL: Talent Assessment, Inc.

Weinstein, C.E., Schulte, A.C., and Palmer,  
D. R. (1987) *Learning and Study Strategies  
Inventory (LASSI)*. Clearwater, FL: H & H  
Publishing.

Reader may contact:

Mary B. Sylvester  
[mysylvest@ircc.cc.fl.us](mailto:mysylvest@ircc.cc.fl.us)  
(561) 462-4231

Leila B. Darress  
(561) 462-4477

Indian River Community College  
3209 Virginia Avenue  
Fort Pierce, Florida 34981-5599

