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A NEW PARADIGM FOR VOCATIONAL EVALUATION: EMPOWERING THE  
VR CONSUMER THROUGH VOCATIONAL INFORMATION

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# Contents

PREFACE .....	IX
CHAPTER ONE: VALUING VOCATIONAL EVALUATION.....	5
<i>Value and Ethics</i> .....	7
<i>Value of VE</i> .....	8
<i>The Vocational Evaluator</i> .....	10
<i>Consumers</i> .....	12
<i>Employers</i> .....	13
<i>Rehabilitation Counselors</i> .....	14
<i>Rehabilitation Administrators</i> .....	15
<i>Conclusion</i> .....	16
<i>Self-Study Questions</i> .....	17
CHAPTER TWO: THE EMERGING PARADIGMS .....	19
<i>Introduction</i> .....	19
<i>Influence of Rehabilitation Regulations</i> .....	23
<i>Economic Status of Persons with Disabilities</i> .....	26
<i>The Changing Workplace</i> .....	27
<i>Careers of Tomorrow</i> .....	28
<i>Future Directions in Vocational Evaluation</i> .....	28
<i>A Career Development Perspective</i> .....	29
<i>Career Resilience and Maintenance</i> .....	32
<i>Staying Current</i> .....	33
<i>Anatomy of Emerging Paradigms</i> .....	34
<i>Culture</i> .....	39
<i>Individualization</i> .....	48
<i>Conclusion</i> .....	50
<i>Self-Study Questions</i> .....	52
CHAPTER THREE: EVOLUTION OF VOCATIONAL EVALUATOR KNOWLEDGE, SKILLS, ABILITIES, AND ROLES.....	55
<i>Selected Role and Function Studies</i> .....	58
<i>Back to our Roots—"Back to the Future"</i> .....	65
<i>Actual Day-to-Day Evaluator Responsibilities</i> .....	68
<i>Routine Vocational Evaluator Responsibilities</i> .....	68
<i>Expansion of Roles</i> .....	73
<i>Evaluators in the Employment Sector</i> .....	77
<i>Technology Innovations Expand Evaluators' Roles</i> .....	78
<i>Conclusion</i> .....	79
<i>Self-Study Questions</i> .....	80

CHAPTER FOUR: THE VOCATIONAL ASSESSMENT AND EVALUATION PROCESS.....	81
<i>Introduction</i> .....	81
<i>The Basic Assessment Process</i> .....	83
<i>Focusing on What People Can Do</i> .....	83
<i>A Closer Look at Vocational Assessment</i> .....	84
<i>Levels of Assessment: The Assessment Continuum</i> .....	90
<i>Periodic Reassessments: Vocational Assessment Throughout the Rehab Process</i> .....	92
<i>Emerging Paradigm: Assistive Technology and Vocational Assessment</i> .....	94
<i>What is Assistive Technology?</i> .....	95
<i>Assistive Technology and the Vocational Evaluation Process</i> .....	96
<i>When Should Assistive Technology be Utilized?</i> .....	97
<i>Suggestions for Using Assistive Technology</i> .....	98
<i>Quality Improvement and Vocational Assessment and Evaluation</i> .....	101
<i>Vocational Assessment and Special Populations</i> .....	101
<i>Influences on the Process</i> .....	103
<i>Conclusion</i> .....	104
<i>Recommendations</i> .....	105
<i>Self-Study Questions</i> .....	106
CHAPTER FIVE: DEFINITIONS AND CONTENT OF TRANSITION ASSESSMENT AND VOCATIONAL EVALUATION .....	109
<i>What is Transition Assessment?</i> .....	109
<i>What is Included in Transition Assessment?</i> .....	110
<i>Purposes of Transition Assessment</i> .....	110
<i>Timing of Transitional Vocational Evaluation</i> .....	113
<i>Models of Transitional Vocational Evaluation</i> .....	115
<i>Lombard's MAGIC Model (1993)</i> .....	115
<i>Selecting Assessment Methods for Transitional Vocational Evaluation</i> .....	117
<i>Conclusion</i> .....	123
<i>Self-Study Questions</i> .....	125
CHAPTER SIX: LANGUAGE AND COMMUNICATION .....	129
<i>Communication</i> .....	130
<i>Interpreting</i> .....	131
<i>Comparison of Uncertified and Certified Interpreters</i> .....	132
<i>Certification and Screening</i> .....	132
<i>Tips on Using an Interpreter</i> .....	134
<i>Function of an Interpreter</i> .....	134
<i>How to work with an Interpreter</i> .....	134

<i>Modes of Communication</i> .....	135
<i>Spoken</i> .....	135
<i>Print</i> .....	137
<i>Sign Language</i> .....	141
<i>Conclusions</i> .....	150
<i>Self-Study Questions</i> .....	152

## CHAPTER SEVEN: COMMUNICATING FINDINGS AND OUT- COMES.....155

<i>Introduction</i> .....	155
<i>Guiding Principles of The Vocational Evaluation Report</i> .....	156
<i>Consumer's Rehabilitation Stakeholder Team</i> .....	159
<i>The Narrative Report</i> .....	160
<i>Visual Reports</i> .....	166
<i>Alternative Methods for Communicating Findings</i> .....	168
<i>The Portfolio</i> .....	168
<i>Portfolio Formats</i> .....	174
<i>Communicating Findings through Electronic Collaboration</i> .....	177
<i>Conclusion</i> .....	179
<i>Self-Study Questions</i> .....	181

## CHAPTER EIGHT: PROMISING PRACTICES OF VOCATIONAL EVALUATION AND CAREER ASSESSMENT..... 183

<i>The Kansas Model</i> .....	186
<i>Individualized Services</i> .....	187
<i>Program Evaluation</i> .....	188
<i>The South Carolina Career Planning and Employment Services Model</i> 190	
<i>Underlying Goals and Objectives</i> .....	190
<i>Vocational Assessment and Career Planning</i> .....	191
<i>Implementation of the CPE Program</i> .....	192
<i>Community work experiences</i> .....	193
<i>Employment Readiness Classes</i> .....	195
<i>Marketing the CPE Program</i> .....	196
<i>Summary</i> .....	196
<i>The Virginia Model</i> .....	197
<i>Vocational Assessment Service Options</i> .....	198
<i>Program Enhancements</i> .....	200
<i>Evaluating Systems Enhancements</i> .....	201
<i>Vocational Evaluators as Team Members</i> .....	202
<i>Continued Program Enhancements</i> .....	203
<i>Summary</i> .....	204
<i>The Maryland Experience: Career Assessment Services Options Model</i> — A Collaborative Partnership .....	205

<i>Developing the CAS Options Model</i> .....	206
<i>Five Essential Components of CAS Options</i> .....	207
<i>Career Assessment Service Options</i> .....	208
<i>Implementation of the CAS Options</i> .....	209
<i>Increasing Availability of Services</i> .....	209
<i>Summary</i> .....	210
<i>Intensive Assessments: Integration of Vocational Evaluation and Assistive     Technology Resources</i> .....	211
<i>Background</i> .....	212
<i>Intensive Assessments</i> .....	213
<i>The Process</i> .....	214
<i>Summary</i> .....	217
<i>Conclusion</i> .....	218
<i>Self-Study Questions</i> .....	219
<b>CHAPTER NINE: LOOKING BACK</b> .....	221
<i>I. Beginning- 1960</i> .....	222
<i>II. Modern Rehabilitation Era: 1960-1973</i> .....	224
<i>III. Modern- Multi-Service Application Era: 1973-1990</i> ..	226
<i>IV. Contemporary (Post-Modern) Era: 1990 to Present</i> ..	229
<i>Lessons Learned from History</i> .....	233
<i>Historical Themes Encouraging the Development of a New Paradigm</i> 236	
<i>Conclusion</i> .....	236
<i>Self-Study Questions</i> .....	238
<b>CHAPTER TEN: MOVING FORWARD</b> .....	239
<i>Legislative Requirements</i> .....	239
<i>Implementation Models</i> .....	240
<i>Future Trends</i> .....	241
<i>Action Plan</i> .....	245
<i>Summary of Action Plan for Implementing the New Paradigm</i>	251
<i>Conclusion</i> .....	257
<i>Self-Study Questions</i> .....	258
<b>BIBLIOGRAPHY</b> .....	259
<b>GLOSSARY</b> .....	281
<b>APPENDIX A: APPENDIX TO CHAPTER THREE</b> .....	285
<i>Federal Web-based Resources</i> .....	285
<i>O*NET – the Occupational Information Network</i> .....	287
<i>Additional Resources</i> .....	288
<b>APPENDIX B: TRANSITION PROFILE</b> .....	291
<i>Uses for the Transition Profile</i> .....	291
<i>Student Information</i> .....	293
<i>IEP Transition Goals</i> .....	293

<i>Worker Characteristics .....</i>	294
<i>Eligibility Status for Adult Services.....</i>	294
<i>Vocational Training History .....</i>	295
<i>Interests and Preferences .....</i>	295
<i>Profiler Information .....</i>	295
<i>Attachments .....</i>	295
<i>Student Approval.....</i>	296
<b>APPENDIX C: SAMPLE KWL FOR VOCATIONAL EVALUATION</b>	
<b>.....</b>	297
<b>APPENDIX D: SAMPLE PORTFOLIO .....</b>	299
<i>Sample Electronic Portfolio Pages .....</i>	300
<b>APPENDIX E: E-COLLABORATION TOOLS.....</b>	303



# Preface

Vocational evaluation (VE) first appeared in professional literature in 1947 (Thomas, 1996). Since the 1960s, it has been utilized in varying degrees in the public vocational rehabilitation (VR) program to support individual employment plans for consumers. VE has been provided by employees of the public program, not-for-profit community rehabilitation programs, for-profit vocational providers, public schools and various college settings. As a relatively new profession, graduate degree programs and professional certification have been developed since those first published articles. VE has seemingly had periods of greater and lesser acceptance. At times of greatest acceptance, VE has been used as a critical component of the public rehabilitation process to ensure customer success. Other times, when VE has been under its greatest criticism, it has been used as a screening tool to limit services.

Vocational evaluators have long felt that quality, comprehensive, individualized vocational evaluations help increase the success of the VR planning process by more accurately helping the customer make informed choices about their personal career development. Research seems to support this belief (Thomas, 1996). Research suggests that the more closely the recommendations of VE are followed, the more likely the customer will be successfully placed in work (Williams, 1975; Ward-Ross, 1985; Marut & Bullis, 1985; Kosciulek, 1991; Brown, McDaniel & King, 1995). Interestingly, much of this same research indicates a lack of congruence between the recommendations made and the recommendations that are actually followed.

The 14<sup>th</sup> Institute on Rehabilitation Issues (IRI) addressed the foundations of VE practice in public sector VR. Many of those same principles of practice serve as foundational information in this IRI. However, as we look at VE in the 21<sup>st</sup> century, we must look to the critical changes in practice and the legislation that has driven these changes. Additionally, technology has added to the role of VE in the public sector. Together, these changes bring us to a new paradigm in vocational evaluation. The professionals who perform vocational evaluation may or may not be called vocational evaluators. Practices may vary from brief paper and pencil assessments to community based assessments that take several weeks to comprehensive assistive technology evaluations that change the work environment to a combination of all three. The common feature is a partnership with the customer, the counselor and the evaluator to select the best vocational choice for the consumer and develop a plan to enable the customer to reach this goal.

Various pieces of legislation have had an impact on the practice of evaluation. The 1992 and 1998 Amendments to the Rehabilitation Act bring “informed customer choice” to the forefront in public sector VR. Interestingly, some state agencies have interpreted these new guidelines as a need to diminish VE services while other state agencies have interpreted these same guidelines as reason to strengthen them. The Workforce Investment Act (WIA) of 1998 defined assessment as part of the core services and as part of the intensive services critical to the local “one stop.” Vocational assessment was deemed potentially important for all workforce customers, not just individuals with disabilities. As part of this IRI, we are proposing that VE should be strengthened in the public VR program. The call for informed choice in the 1992 and 1998 amendments serves as the foundation for good rehabilitation practice to be supported by VR. At their best, vocational evaluation and assistive technology create a partnership with the customer and the counselor in which the customer drives the process and chooses his or her career. Focus on informed choice is the new paradigm for VE and assistive technology. Additionally new opportunities exist for the public VR program to share its expertise and expand its value by participation as experts in the vocational assessment requirements in the Workforce system. Bottom line—vocational evaluation makes a difference. Outcomes are improved for customers and counselors. This new paradigm can improve the success of the public VR program.



## Chapter One

# Valuing Vocational Evaluation

Welcome to a new look at vocational evaluation (VE) and assessment. The rehabilitation professionals responsible for this publication have spent much time researching, writing, discussing and envisioning some new paradigms about the whys, whos, and hows of VE and assessment. It is understood that there are “pockets of perfection” around the nation that are already practicing many of the principles described here as new paradigms. In many areas, however, the assessment process has been diminished, watered down, or frozen in time.

There are two common threads throughout this document. The first is “empowerment.” Knowledge is power and the consumers we serve are empowered to make informed choices when provided with good information about themselves, services available, and the labor market. The second thread is “individualism.” One size does not fit all. The assessment process should always consider factors such as the unique disability and cultural differences among those we serve.

Related to this is the concept of universal design to include assistive technology to accommodate these differences. Most of the consumers we serve would benefit from a thorough assessment, which may or may not include a VE. This is particularly true when the assessment process is defined in broad enough terms to encompass a variety of tools and procedures that can be individualized. In some

states, however, “the baby has been thrown out with the bathwater” when the process needed improvement but was instead eliminated or greatly reduced.

It is important to remember that the process described here is not “Your Father’s Oldsmobile.” As mentioned, the process is defined in broad terms with the concepts of individualism, team approach, and the requirement that the questions are known before the answers are sought.

Vocational rehabilitation (VR) administrators should be particularly interested in this document. The VR program regulations emphasize informed choice, efficiency of service, and consumer satisfaction. Vocational rehabilitation administrators should also note that the right of all consumers to a thorough assessment related to their “strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choices” is mentioned throughout the Rehabilitation Services Administration (RSA) regulations. Regardless of a VR counselor’s qualifications and experience, it might be difficult to demonstrate that this assessment can be accomplished with an office interview in most cases. Indeed, there appears to be a resurgence of interest in the assessment process among other organizations that, at times, serve people with disabilities. One-Stop Career Centers, Department of Labor, Welfare to Work programs, and private temporary employment agencies are all developing methods of assessments and VE for the people they serve. State VR programs have an opportunity for taking a leadership role and collaborating with these partners in improving the VE process.

The most important paradigm shift in this document is from assessment as a screening tool to VE to empower the consumers with information. Consumers are beginning to realize the value of this information, and VR programs should be prepared to oblige them.

The IRI study group members believe that the value of VE in rehabilitation has not been fully appreciated. Yet when it is provided in a manner consistent with its true definition, it has repeatedly proved itself as a valuable resource for VR. VE is not as much a rehabilitation service as it is an employment outcome service that would be of value to anyone in society who seeks information to make informed choices about job opportunities and career direction. The general public has a better understanding of terms such as VE, and vocational or career assessment than it does the concept of VR, which is often confused with medical rehabilitation (e.g., physical therapy, occupa-

tional therapy, speech pathology).

VE is a valued professional discipline that most people, including people with disabilities, will want to use to help identify and achieve career goals. This chapter will explore those unique aspects that make VE a valuable service to the VR consumer, counselor and administrator.

## **Value and Ethics**

Two definitions will be used to describe the word “value” in this chapter. One refers to the worth in usefulness or importance to the possessor: utility or merit (e.g., the considered value of a service such as VE to a potential user). The other definition refers to a personal principle or standard that guides one’s decision-making and living (e.g., the behavior or actions of consumers and professionals that are based on personal or institutional beliefs). Both definitions of value play an important role in service delivery and must be recognized and addressed if a positive and desirable outcome is to prevail.

Ethical codes for vocational evaluators and rehabilitation counselors ensure that services are delivered with competence and integrity, and reflect the strong desire of credentialed professionals to provide a service offering real value to consumers, employers, and society in general. Within the ethical scope of the evaluator, value takes on another meaning. Evaluators must recognize and respond to the values of their consumers, the referral source, their own employers (e.g., agency, rehabilitation program), and the employers of consumers. Professionals must determine how these personal and business values positively or negatively influence their ability to ethically and competently offer services.

Individuals with disabilities value the same things as the rest of society: human rights and dignity, and access to the same services and opportunities afforded anyone in society including a meaningful job and the ability to live independently. Vocational evaluators also recognize the value of their service to consumers, rehabilitation counselors and to the work force, while at the same time responding to the personal values, preferences and dreams of consumers. When an individual’s values are positively addressed in evaluation, rehabilitation, and employment outcome, ownership is assured and success enhanced, and the consumer realizes and appreciates the value of the services received. In essence, VE is a value-added service within the VR process.

## Value of VE

Research has proved that VE can be both effective and efficient despite some criticism in the past; effective in its ability to help consumers become successfully employed, and efficient in identifying rehabilitation and employment options that lead to a positive outcome, while ensuring that limited resources are appropriately used. If VE can lead to successful placement, then the time spent in the process is far more efficient than a time-consuming “hit-or-miss” process that may or may not lead to a positive outcome. Put another way, the value of VE is embedded in its efficiency and effectiveness. Numerous follow-up studies conducted since the 1950s have demonstrated the success of VE (Miller, 1958; Rosenberg & Usdane, 1963; Hallenbeck & Campbell, 1975; Reid et al, in press). Studies that offer the best evidence of evaluation’s utility as an effective employment outcome service reveal three things:

1. There are higher success rates when evaluation recommendations are followed as opposed to when they are not followed;
2. The more closely VE recommendations are followed, the higher the placement success rate, and
3. When a more comprehensive and individually tailored VE was administered, successful prediction was maximized.

To support these three points, selected research on VE effectiveness will be highlighted.

Williams (1975) conducted a follow-up study to examine the relationship between VE report recommendations and status/outcome of VR consumers. Findings revealed that in the 68% of the cases where recommendations were followed, 92% percent of the consumers were successfully placed. In the 32% of the cases where recommendations were not followed, only 28% of the consumers were successfully placed.

Grosser, Schmitt and Scott (1993) conducted a follow-up of all students evaluated during the 1989-1990 school year at the PACES VE Center in Newport News, Virginia. Short-term follow-up revealed that in cases where students were placed in recommended areas, 83% were receiving grades ranging from A to C; for students not placed in recommended programs, only 39% received grades from A to C.

Long-term follow-up indicated that in the 33% of the students who could be reached by phone, 86% “were either working in the

field in which they were trained or they were receiving further training in the same area that was recommended. Of the students placed in programs that were not recommended only 13% were employed in the field for which they were trained” (p. 313).

Marut and Bullis (1985) conducted a study on the relationship between evaluation recommendations and outcomes of individuals who are deaf. It was found that when 50% or fewer of the recommendations were followed, only 16.6% of the sample was employed. When 75% or more of the recommendations were followed, 83.3% of the sample was employed. The authors concluded that “the closer the VE report is followed in the habilitation/rehabilitation process, the more likely it is that correct decisions regarding the subjects’ employment will be made” (p. 69).

Kosciulek (1991) conducted a study of the relationship between VE recommendations and rehabilitation outcomes for individuals with traumatic brain injuries. When 49% or less of the evaluation recommendations were followed there was only a 4% placement success rate. When more than 49% of the recommendations were followed there was a 68% success rate. The more evaluation recommendations were used in planning, the more successful the job placement.

In addition, little direct relationship was found between the type of recommendation (e.g., counseling, adjustment, training) and employment outcome. The study suggests that success was not the result of the type of service recommended, but whether most recommendations were followed in the rehabilitation plan.

When analyzing reports written by evaluators located in VR, rehabilitation hospitals and community rehabilitation programs and comparing them to their respective Individualized Plans for Employment, (IPE’s) Ward-Ross (1985) found that there was an 83% successful closure rate when recommendations were “followed,” a 67% success rate when reports were “followed somewhat,” and a 50% success rate when recommendations were “not followed,” regardless of setting.

Montgomery (1996) analyzed the files of VR consumers with chronic mental illness (CMI). The use of three evaluation techniques (psychometric tests, work samples, situational assessment) were examined and compared to successful (“26”) and unsuccessful (“28”) closure status to predict employment success. The probability of predicting employment success by technique was determined as follows: psychometric testing 20%, work samples 50%, situational assessment

68%, and all three techniques 95%. In support of these findings, Anthony and Janson (1984) reported that psychometric testing is the poorest predictor of employment success for persons with chronic mental illness. However, their research found that VEs, particularly those that used situational assessments, were useful in helping individuals with CMI achieve employment.

Determining the value of VE and assessment should be based on several key factors. The overall validity of VE must be looked at globally rather than as it relates to individual instruments and techniques. Studies must look at both the positive and the negative, successful and unsuccessful outcome information. Outcome studies should look at how extensively VE report recommendations were used in rehabilitation and employment planning, and if implementation of the plan led to success. Follow-up should also determine the impact of VE on the quality of life and satisfaction expressed by the consumer, family, employers, service providers, and significant others. Finally, here are two additional factors affecting outcome studies to consider:

1. When in the rehabilitation or transition process the VE occurs
2. The quality of rehabilitation, education, and employment services provided during the implementation of VE recommendations.

VE has proved its value within the rehabilitation and transition processes, and has proven to be a useful tool in accurately guiding planning and placement activities. Research suggests that the more evaluation recommendations are used in planning, the greater the chances of success in training and job placement. The efficiency and effectiveness of evaluation services cannot be fully determined by simply examining the validity of the instruments and techniques used in vocational evaluation. Ensuring that evaluation recommendations are thoroughly used in planning and placement is the key to overall success for consumers, rehabilitation counselors, employers, and vocational evaluators.

## **The Vocational Evaluator**

Although VE is a team effort, the vocational evaluator is the primary professional responsible for planning and delivering the service, ultimately synthesizing and integrating all findings into useful information (e.g., an evaluation report with recommendations). The skill of the evaluator, more than the available instruments, is the most important ingredient in the effective delivery of VE services. Without

appropriate knowledge and skills in understanding work, disability, rehabilitation, community resources, and the standardized and clinical use of instruments, techniques, and strategies to bring together pertinent and useful information, the results will not provide a complete and accurate picture of the consumer. Ensuring that vocational evaluators are properly trained and certified in the use of appropriate evaluation instruments and techniques will increase opportunities for improved state-of-the-art service delivery.

The role of the evaluator is being transformed into a new working paradigm that reflects its social value through three fundamental roles: the evaluator as vocational/career expert, disability specialist, and educator (Thomas, 1997, 1999). The evaluator's role as educator becomes a key ingredient in articulating the efficiency, effectiveness, and overall value of VE. To be seen as having social value and worth, the general public must understand how evaluation serves the rehabilitation, education, and human service sectors in our society in helping individuals with barriers to employment achieve independence, financial self-sufficiency, and improved quality of life (Thomas, 1994). Existing and potential referral sources need to understand how VE and assessment can help them meet or exceed their service mandates. In particular, rehabilitation counselors must understand that VE is a unique and distinguishing feature of the VR process.

Education has achieved its goal when consumers recognize how a partnership with evaluators will help them acquire valuable information to make informed choices about desired employment and identify and plan for their chosen careers. When this level of understanding is reached, consumers of VR services will know how to ask their counselors for a VE, just as they might ask for dental, medical, legal, or psychological services when needed. More than any other market force, *consumer demand* for VE will guarantee its growth.

Consumers, purchasers of services, and administrators are all part of the "general population," and must be treated as such when educating them to the fact that VE has social value and worth to everyone. To a certain extent, any service that is considered to be worthwhile markets itself. When evaluation benefits a consumer, that person will recommend the service to others living within the same community. This "word-of-mouth" process promotes the value of the service through continued demand, with minimal marketing and advertising. VE must also offer members of society what they want and need if it is to be valued and used.

## **Consumers**

### ***Perception is Key***

Depending on how the service is perceived, a VE could be either feared or desired by a VR consumer. Test anxiety is something that most of us have experienced to one degree or another. It is easy to see how a VE could be perceived as just another test upon which to perform poorly, be judged, labeled, etc. If however, the service is presented and administered as a positive, empowering event, most consumers would likely demand a VE.

### ***Expedience of Service***

In recent years, service providers have been pressured by consumer advocacy groups to expedite rehabilitation services. This pressure has led to faster service in some instances but less service in others. At one time, many service providers required consumers endure the same lengthy VE, regardless of severity, type of disability, or goal. Under these circumstances, it is easy to see why VE was perceived by many as a waste of time. Indeed, it often was. But a prompt, effective, individualized assessment can actually save time for the consumer.

How many of us have been frustrated in years past with the automobile mechanic who, through guesswork, replaces part after part until finally correcting the problem? Today's computerized diagnostic systems allow mechanics to assess the automobile first, hence, saving time and money. If VEs are offered at individualized levels and are used as tools for self-exploration and discovery, consumers will demand the service, feeling underserved without it.

### ***Meaningful Employment***

For most of us, the first job we obtained was not our last. Many of us moved from one job/career to another until finally (sometimes by luck) landing an employment situation that seemed to "fit." Most of us would have preferred the self-discovery process to occur earlier. It is not always as easy for some people with disabilities to independently jump from job to job in an effort to self-explore. VE as a process to promote self-sufficiency is critical for these individuals. Is the goal of the IPE simply a job or true, meaningful employment? If the answer were the latter, a thorough assessment would be critical.

### ***Empowerment***

Empowering the consumer is a common theme throughout this document. Indeed, the greatest empowering tool for consumers is information. It is understood that consumers have the right to choose

their vocational services and employment goals. The question is “Are we providing them with sufficient information to make effective choices?” Information is power.

## **Employers**

These days it is common knowledge that VR has two major groups of consumers. People with disabilities are the priority, but the second group, employers, is crucial in order to achieve quality employment outcomes. In today’s environment, employers are desperate for assistance in dealing with the need for diversity in the workplace. The Americans with Disabilities Act (ADA) has empowered people with disabilities yet frightened and frustrated many employers. Business Leadership Networks have sprung up all over the nation with the major purpose of dealing with the need to hire individuals with disabilities. VR and other service providers often approach these employers offering assistance. In order to maintain an effective partnership with employers, it is crucial that these providers be able to deliver the services promised. One of the services commonly offered to employers is a good “job match” between consumers and jobs. Many employers are more than willing to hire people with disabilities provided they can do the job. Often these same employers are experiencing a “fear of the unknown” because of their limited exposure to individuals with disabilities. They are depending on service providers to know more than they do in terms of the abilities of potential employees. It is crucial that service providers build trusting relationships with these employers by possessing the in-depth knowledge of consumers being served. A productive “job match” is the key to building this trust. A VE that is administered by a professional who can relate abilities to the local job market is a vital tool for providing employers this service.

“Reasonable accommodation” is probably the most common phrase out of ADA that employers, consumers, and service providers are familiar with. But, what is a reasonable accommodation? Employers often ask, “What is considered reasonable?” And more importantly, “What is an accommodation?” Employers look to service providers to answer these questions as they relate to specific jobs. VEs that do not address these issues do not measure up to the needs of all concerned. Matching the essential functions of the job with the functional limitations and abilities of a consumer is only part of the picture. Today’s vocational evaluator must have a thorough knowledge of

assistive technology available, as well as information concerning the variety of low-tech accommodating solutions. So what is reasonable? Only after understanding the accommodation and contextual factors can we determine what is reasonable. Oftentimes, even when considered unreasonable, additional assistance may be available from VR or other service providers. In the end, just as information from the evaluation empowers the consumer, it also empowers the service provider to build a productive, trusting relationship with another important customer, the employer.

## **Rehabilitation Counselors**

VE traditionally has been an integral part of the VR process. At some point it seemed to drift into the role of gatekeeper to VR services and was used as a means to say no to persons with severe disabilities. In the current environment VE as a service has come under tremendous pressure. Many states have chosen to reduce their use of VEs or have chosen to move to an outsource model.

Another issue that seems to affect the perceived value of VE to VR counselors is varying perceptions of just what a VE is. Many counselors equate VE with paper and pencil or dexterity testing in order to simply determine skills and abilities. The definition of VE from the Vocational Evaluation and Work Adjustment Association (VEWAA) glossary (Dowd, 1993b) states that "VE is a comprehensive process that systematically uses work, either real or simulated, as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational development." This reference to real or simulated work identifies VE as a process that supports career exploration. It becomes more instructive to inquire about the Taylor and Bordieri (1993) study where they surveyed 374 rehabilitation counselors from four Midwestern states to determine their perceptions on the information received from a VE. They noted that responding rehabilitation counselors found information from VEs important to vocational planning. Survey results from the VE Information Questionnaire (VEIQ) resulted in three factors—Work Personality, Physical and Cognitive; Specific Job Selection; and Formal Education and Training—which correspond to information needed by VR counselors. Taylor and Bordieri also noted that many of the respondents to their survey indicated that there was information they believed important to vocational planning which was not included in the VE results they received.

Taylor and Bordieri noted survey respondents purchased VE services for 20% to 80% of their clients. Ashley and McGuire-Kuletz (1999) in their survey of VR counselors in the state program in Virginia found that 98% of the counselors had used VE services within the previous year and 99% of the survey respondents viewed the VE services helpful for vocational planning. In this survey the VR counselors noted that they wanted the state agency provided evaluation services more available; and that they used the VE services as they believed the information to be reliable and useful when developing IPEs.

Ashley and McGuire-Kuletz (1999) point out the importance of the VR counselor being consulted in developing VE services which will address the needs of consumers with severe disabilities. These authors report follow-up to a focus group process that addressed the perceived need of VR counselors for evaluation information. They report an increased use of VE services after the continuum of rehabilitation services was revamped according to the identified needs by VR counselors.

### **Rehabilitation Administrators**

As noted by O'Brien, Ashley and McGuire-Kuletz (in press), many state agency VR administrators use the 1998 amendments to the Rehabilitation Act as a rationale to reduce the availability of VE services. In contrast, other state agency VR administrators use these amendments to emphasize the importance of VE services. O'Brien, Ashley and McGuire-Kuletz (in press) suggest that VE is an excellent service to address the reauthorized Rehabilitation Act amendments, with its focus on increased employment outcomes for persons with severe disabilities and informed consumer choice. Many state agencies viewed VE services as a strategy that would particularly enhance the process of increased, informed consumer choice by providing information to the consumer and the VR counselor that can be used for joint consumer career planning. This became particularly relevant after RSA issued a Policy Directive (PD-97-04) on August 19, 1997. The Policy Directive stated that "the State VR Services program is not intended solely to place individuals with disabilities in entry-level jobs, but rather to assist eligible individuals to obtain employment that is appropriate given their unique strengths, resources, priorities, concerns, abilities, and capabilities."

## Conclusion

Effort needs to focus on increasing awareness of consumers, service providers, and employers of the value of VE. This awareness should be based on a VE model that empowers the consumer and creates ownership of the information obtained. To assist in this effort, it is essential that vocational evaluators strive to fill the role of vocational expert, disability specialist, and particularly educator. These services should be perceived to have value to all individuals with or without disabilities. “Informed choice” should be the most important marketed value of VEs. Consumer demand is the market force needed to ensure that this service survives and grows. The correct perception of the service is essential for this demand to occur, and the perception that a VE will expedite services and increase the likelihood of obtaining meaningful employment is the key. Likewise, employers, when properly informed, should see the value of thorough assessments for both potential employees and on-board staff who may need to change positions for various reasons. Second in importance to consumer demand is VR counselor demand. In recent years, for many counselors, the role of VE has either disappeared altogether from the rehabilitation process or shifted to the role of gatekeeper. Rehabilitation counselors need to be reeducated on the true definition and purpose of the service. And finally, rehabilitation administrators should realize that VEs are an important tool to increase positive outcome, develop consumer-informed choice, and indeed, justify the need for specialized services provided by state VR programs that lead to employment success.

## Self-Study Questions

1. (T/F) The 2 common threads throughout this document are “knowledge and power.”
2. (T/F) RSA regulations support the idea of a thorough assessment for all consumers.
3. (T/F) There is evidence of higher success rates when recommendations from vocational evaluations are followed.
4. (T/F) The skill of the evaluator, more than the available instruments, is the most important ingredient in the effective delivery of VE services.



## Chapter Two

# The Emerging Paradigms

### Introduction

Vocational evaluation (VE) has always worked hard to adapt to adjustments in vocational rehabilitation (VR) regulations, populations, and service priorities when required. These continuous shifts in VR, and other sectors that rely on VE services, have led to changes in the way evaluation and assessment services are delivered.

From these and other changes in society (e.g., globalization, employment, diversity) have evolved new and emerging paradigms for vocational evaluation that ensure its relevance and utility.

The four major areas that drive the paradigm shifts in evaluation which will receive attention in this and following chapters are: empowerment, universal design, culture, and individualization.

The official definition of *vocational evaluation* currently accepted within the profession was developed by the Vocational Evaluation and Work Adjustment Association (VEWAA) and is contained in the VEWAA Glossary (Dowd, 1993b):

A comprehensive process that systematically uses work, either real or simulated, as the focal point for assessment and vocational exploration, the purpose of which is to assist individuals with vocational development. Vocational evaluation incorporates medical, psychological, social, vocational, educational, cultural,

and economic data into the process to attain the goals of evaluation.

This definition still has value within rehabilitation, transition and employment training settings. VE services have progressed over time and this definition has evolved, and will continue to evolve, to reflect current state-of-the-art practice and to guide future delivery of services. In order to meet changing service needs, regulations and philosophies, VE has experienced many changes in its model of service delivery as well (i.e., paradigm shifts) to ensure optimum employment outcome. Another important term contained in the VEWAA Glossary (Dowd, 1993b) is *vocational assessment* (VA), which is defined as follows:

A comprehensive, informal process conducted over a period of time, usually involving a multidisciplinary team with the purpose of identifying individual characteristics, rehabilitation, education, training, and placement needs, serving as the basis for planning an individual's rehabilitation, employment, career development, education, and/or transition program(s), and that provides the individual with insight into vocational and career potential (modified from McCray, 1982, for this publication).

Much like the definition for *vocational evaluation*, the definition for VA still has value within the rehabilitation profession. Although it is often used interchangeably with VE, it refers to the more informal, ongoing process conducted by all service providers as they make decisions throughout case management, service delivery, and the rehabilitation and education processes. When VA reveals a need for more detailed and specific information, a formal, time-limited service such as vocational evaluation can be used and incorporated into the ongoing vocational assessment to keep planning and services on track. Over time this definition may undergo revision to reflect changes and paradigm shifts in the field.

When VR counselors or consumers complained about the lengthy VE process (e.g., two or more weeks) that relied on a variety of instruments and techniques, the process took a radical swing to a brief screening ranging from several hours to a half-day, primarily using standardized tests, rating scales, transferable skills assessment, and com-

puter testing software. Unfortunately, these brief screenings continued to be referred to as vocational evaluations even though they did not comply with the accepted definition that includes “work, either real or simulated.” This paradigm shift failed to produce a more useful service, and in some cases VE was dropped as a rehabilitation service altogether. This swing to a shorter evaluation was also prompted by dwindling resources and a demand for faster overall service delivery within vocational rehabilitation; a philosophy that was passed on to VR’s service providers.

*To be of value, vocational evaluation should help make the rehabilitation counselor’s job more effective and efficient in achieving desired employment outcomes and long-term career development.*

Financial exigencies and Federal regulations that required a more timely delivery of VR services had a similar impact on VE services. Regulations emphasizing empowerment and career development have also led to new and evolving paradigms within VE. The following table compares some of the old views and practices of VE to the evolving paradigms that mark its shift to a more inclusive and dynamic employment outcome service.

It is important to note that current, and even past literature on VE has proposed and described many of these new and evolving paradigms, offering glimpses of what VE should be. With the support of their employers and referral sources, a few creative evaluators have long practiced what are considered to be new paradigms. Unfortunately, for a variety of reasons such as a lack of expertise, time, support, acceptance, expedience, or resources these new ideas were never fully and uniformly applied on a large scale throughout the field. Many current and past ideas have potential for improving vocational evaluation services for individuals with disabilities today and tomorrow if embraced by consumers, VR counselors, and evaluators and routinely applied as best practice. A shift to the new paradigms for VE does not need to occur all at once, but over time and in phases to ensure success. These same shifts can be generalized to other evaluation settings such as community rehabilitation programs, transition programs, and private sector rehabilitation to name a few. It is recommended that evaluators, rehabilitation counselors, assistive technology (AT) specialists, and placement specialists form strong alliances to ensure that the implementation of these paradigms significantly improves em-

ployment outcomes for all consumers.

Old Paradigm	Current and New Paradigms
VE used as gatekeeper (eligibility determination)	VE used to optimize consumer-driven employment outcome and long-term career development
Screen client in/out of rehabilitation services	Facilitate customer's success in effectively choosing and maintaining desired employment despite severity of disability
Fit client to the VE process	Tailor the VE process to fit the consumer
Provide long-term evaluations	Provide individualized evaluations of varying lengths that are sensitive to specific information needs and outcomes
Focus on VE process	Focus on employment outcome with the consumer
Evaluator is the sole provider of VE	VE is a team approach directed by the evaluator
Evaluator in control of the VE process	Evaluator facilitates a consumer-driven process emphasizing participant involvement and decisionmaking (the basis of empowerment, self-determination, informed choice))
VE offered primarily in a clinical setting	The community is one of the many VE settings
VE only offered once	VE offered more than once as a dynamic process to evaluate change and accomodation
Offered in isolation as a stand-alone service	Incorporates other disciplines (assistive technology, career development, transition, empowerment using profiles and portfolios for consumer involvement and ownership)

Old Paradigm	Current and New Paradigms
Initially offered in sheltered workshop settings primarily for Vocational Rehabilitation	Offered in a variety of community-based settings for numerous populations (VR, secondary and post secondary schools/colleges, social services, training and employment programs, community rehabilitation programs, supported employment, hospitals, private proprietary settings [e.g., industrial rehabilitation, career counseling services])

## Influence of Rehabilitation Regulations

### *Chapter 34, Part 361 of the Code of Federal Regulations (34 CFR.361)*

It is no secret that vocational evaluations have declined nationwide over recent years. There was once a time when virtually every VR consumer received some type of VE. Some of the new regulations over recent years may have contributed to this decline as various state VR agencies have interpreted them and changed their approach in providing services. Now that the door has been opened to the practice of omitting VE, some consumers may be missing out on a needed service in the interest of saving time and money.

### *Existing Information*

New regulations that allow and encourage the use of existing information to determine eligibility and planning has influenced some states to rely more heavily on information from schools, doctors, etc.

#### **361.1 Purpose**

The “Purpose” section of the VR program regulations at 361.1 (b) states that all VR programs should be “Designed to assess, plan, develop, and provide vocational rehabilitation services for individuals with disabilities, consistent with their strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice, so that they may prepare for and engage in gainful employment.” It could be argued that even the most educated, experienced VR counselor would have difficulty assessing an individual in terms of all of these traits with merely an office interview and a medical report. Yet, all of these traits are typically addressed in a

thorough vocational evaluation. Can a consumer truly exercise informed choice without systematically addressing these traits? Is not addressing these traits what distinguishes VR services from the generic employment agency?

### ***361.5 (b) (6) Applicable Definitions***

Part 6 of this regulation defines assessment. Once again, the consumers' strength, resources, priorities, concerns, abilities, capabilities, and interests must be considered. It is emphasized that any appropriate existing information should be used. The question is "When a counselor chooses to use existing information, are all of these issues being addressed?"

### ***361.41 Provisions and Scope of Services***

Processing referrals and applications, section (b) (1), requires that a consumer's eligibility be determined within 60 days of application. This period may be extended for a specific amount of time, during which VE may occur, if the individual agrees.

### ***361.45 Development of the Individualized Plan for Employment***

Section (b) (1) of this regulation once again states that "The designated state unit *must* conduct an assessment for determining vocational rehabilitations needs." Section (b) (2) also states that once the assessment is completed, "The IPE *must* be designed to achieve the specific employment outcome...that is selected by the individual consistent with the individual's unique strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice" (emphasis added).

### ***361.48 Scope of Vocational Rehabilitation Services for Individuals with Disabilities***

The VR program regulations in Parts (a) (b) and (c) emphasize the importance of a thorough vocational assessment when necessary. This assessment should provide information to the VR counselor and consumer related to disabilities and interests.

Clearly, the intent of these regulations is to stop VR agencies from wasting consumers' time by marching everyone through the same evaluation process without first recovering existing information.

### ***Expediency of Service***

The requirement that eligibility be determined within 60 days from application may also have influenced VR to omit evaluations, whenever possible. This could especially be true if the only evaluation

process is considered to be too lengthy. It is common knowledge that the number one complaint from consumers concerning VR services has been the length of time required to get from point A (application) to point B (successful employment). If a wide variety of assessment and evaluation services ranging anywhere from two hours to two months were available, perhaps counselors would be more willing to recommend them. Obviously, a more individualized approach is more user-friendly to the consumer.

### ***Supported Employment***

The requirement in the regulations for all states to have a supported employment plan may also have had a diminishing affect on the number of vocational evaluations. The “place and train” concept and the idea of using a “real-life” situation to determine needs suggest that paper/pencil tests or even simulated work is less effective for certain populations. Indeed, there is merit to this approach. However, the case could be made that a “real-life” trial work assessment with coaching is simply one of the many methods for producing a vocational evaluation result/report.

### ***A Different Perspective***

Regardless of previously mentioned trends, there are certain RSA regulations that could be interpreted to support vocational evaluation. This is particularly true when they are defined in broader terms to assess individuals in different ways depending on the severity and type of disability. Consider the following: Influences on Emerging Paradigms in Vocational Evaluation

The new and current paradigms for vocational evaluation are based on the following principles:

- consumer-driven
- based on principles of empowerment and self determination
- employment/outcome focused
- community-based
- part of a larger service delivery system
- holistic and inclusive of all aspects of the individual's life
- fully inclusive of the consumer in the assessment process
- ongoing and focused on long-term career development

- customized to meet the needs of the consumer

Unfortunately, due to systemic constraints and misinterpretation of current rehabilitation legislation, widespread acceptance of new and more progressive thinking and practices in vocational evaluation has been difficult and slow. Because of this, the profession has suffered ongoing criticism and has been wholly under-valued. While evaluators in private practice and community settings have more flexibility to integrate new and innovative practices into their services, significant financial and time pressures continue to haunt evaluators in state rehabilitation settings. They are typically only able to offer a one-time, static approach to assessment. The evaluator is able to afford very little time to personalized service and long-term career development.

As a result, skills of the vocational evaluator as a career expert are often underutilized. The current economic situation of persons with disabilities and the realities of the 21<sup>st</sup> century workplace present a compelling case for the full adoption of the emerging paradigms in vocational evaluation across all systems.

### **Economic Status of Persons with Disabilities**

While the US has invested billions of dollars in workforce development programs, the economic gains of persons with disabilities continue to be unimpressive. Many individuals with disabilities still live in poverty, and people with disabilities continue to have the highest unemployment rate in the country. Data from the 2001 Current Population Survey (CPS) conducted by the US Census Bureau for the Department of Labor point out that the unemployment rate for persons with disabilities is 10.2% while individuals without disabilities faced only 4.4% unemployment. Additionally, of those individuals with disabilities who are working only 18% work full-time as compared to 65% of individuals without disabilities. The National Organization on Disability's 2000 Harris Poll found that only 32% of individuals with disabilities ages 18–64 were employed as compared to 81% of individuals in the same age group without disabilities. For those who have jobs, many are underemployed and have very little opportunity for career growth. *Futurework* (DOL, 1999) reported that 10% of people with significant disabilities working full-time fell below the poverty line.

Finally, persons with disabilities still face significant attitudinal barriers by employers. In the *Work Trends Report: Restricted Access* published by the John J. Heldrich Center for Workforce Development

at Rutgers University, 17% of employers surveyed report that lack of skills and experience on the part of the job seeker was the greatest barrier to employment. However, 15% of employers surveyed reported a general reluctance to hire a worker with a disability regardless of experience. Less than half of those employers surveyed provided training around disability related issues in the workplace. The survey found that nearly 13 years after the passage of the Americans with Disabilities Act, individuals with disabilities continue to face significant barriers to employment and continue to be under-represented in America's workforce.

## **The Changing Workplace**

Changing workforce demographics, continual technological advances, and globalization have changed the landscape of the American labor market. The workforce is becoming more diverse including older workers, women, and more people of color. According to a Department of Labor report, *Working in the 21<sup>st</sup> Century*, these three demographic groups will comprise close to 40% of tomorrow's workforce.

The workplace has become more demanding, requiring workers to do more in less time and to handle issues that are more complex. Employers also expect workers to multi-task, work in teams, use technology to solve problems, be flexible, and have broad knowledge beyond their specialty area (DOL, 2000; Partnership for 21<sup>st</sup> Century Skills, 2003; Dept. of Commerce, 1999). Additionally, workers now perform many of their regular tasks in self-led project teams (Boyett, 2000). Because the workplace has become fast paced and dynamic, workers are expected to add value quickly. While foundation skills such as those outlined in *Learning a Living* produced by the Secretary's Commission on Achieving Necessary Skills (reading, math, writing) remain important, only those employees who are able to demonstrate value added to the company's core mission will show significant progress and advancement (Boyett, 2000). According to Boyett and Associates, (2000) new leadership skills such as envisioning, spanning, organizing, and socializing will become the norm of the new self-managed teams. This trend is also known as the diamond shaped workplace, where employees who innovate, accept broader responsibilities and demonstrate agility become most valued.

The social contract of lifetime employment between employer and worker no longer exists, and work not considered part of the

company's core area of business is being outsourced to temporary and contract workers (contingent workforce). For those reasons, job security has become a thing of the past. The Bureau of Labor Statistics (2002) estimates that by the year 2008, free agents and contingent workers will make up over half of the US workforce. While some individuals are forced to become free agents because of layoffs or terminations, many high-skilled workers choose it. This new approach to career development is known as the "protean career." The protean career benefits both the employer and the employee. Employees work because of loyalty to the profession and opportunities for growth and development and employers receive talented, skilled workers without the cost and long-term commitment.

Globalization's impact on the type of work available to American workers is causing a phenomenon known as "upskilling." Traditional low-skilled jobs are requiring more and more technical knowledge and skills to perform everyday activities. The semi-skilled and unskilled jobs have begun to move off shore to countries such as India and China. While upskilling creates higher paying jobs, it also reduces the availability of lower-end positions (Department of Labor, 1999). Without training or opportunity to "skillup," low-skill workers find themselves in a cycle of poverty (working poor) without opportunities to advance.

## **Careers of Tomorrow**

Computer and technology related jobs are among the occupations that continue having the highest level of growth and highest incomes.

Technology occupations can be classified into three broad areas: creators (programmers, web designers), implementers (network administrators, pc technicians) and users (accountants, data entry), (White, 2000). Because of continued advances in technology, professional specialty occupations have increased. Professional specialties are expected to increase to 27% of technology jobs by the year 2008 (BLS, 2000).

Specialty careers in nanotechnology have begun to flourish as the new manufacturing industry in the 21st century. Nanotechnology is no longer a scientific wonder of the future.

## **Future Directions in Vocational Evaluation**

Vocational evaluation can play a key role in this country's economic and workforce delivery system. Vocational evaluators can serve

as a bridge that connects the demand side (employers in need of skilled workers) and supply side (skilled, potential employees), thereby enabling employers to access an otherwise untapped and underused human resource pool.

The secret is to recognize the value of VE beyond the field of rehabilitation. In fact, the current workforce development policy has permanently linked VR to the broader workforce investment system. The Rehabilitation Amendments of 1998 were included as Title IV of the Workforce Investment Act of 1998 (WIA). WIA mandates collaboration and cooperation between the two systems. Rehabilitation is one of nineteen mandatory partners under WIA. Rehabilitation Services are required partners of the one-stop career center under the federal WIA regulations. Assessment of individuals served is emphasized as a core service to be provided at these new career centers. In the WIA federal regulations under Part 660, Section 662.240, (b), the 11 required core services are listed. Numbers 3 and 5 read as follows:

- 3) Initial assessment of skill levels, aptitudes, abilities, and supportive service needs.
- 5) Provision of employment statistics information, including the provision of accurate information relating to local, regional, and national labor market areas, including
  - i) Job vacancy listings in such labor market areas;
  - ii) Information on job skills necessary to obtain the listed jobs; and
  - iii) Information relating to local occupations in demand and the earnings and skill requirements for such occupations.

Clearly, an individualized, comprehensive vocational evaluation, as described in this publication, is an excellent method to provide these core services, and is proof that a skilled vocational evaluator will play an even more critical role in connecting persons with disabilities to the workforce.

## **A Career Development Perspective**

Because individuals with disabilities often face discrimination, negative societal views/attitudes, poor access to accommodations and assistive technology, and in some cases limitations due to the nature of their disability, they do not always achieve their highest vocational

potential. Also, because of the traditional short-term nature of the rehabilitation system and focus on job placement, people with disabilities do not get the opportunity to receive comprehensive career development and planning services as adults. Fortunately, emerging trends are changing the focus from short-term interventions to long-term career development and planning. With changing workforce realities and the renewed focus of VR and VE on consumer choice, self-determination, and empowerment, a career development framework becomes a natural paradigm shift that enhances the services received by persons with disabilities.

Szymanski (1999) also supports a career development perspective in her article on career resilience portfolios. She suggests that career development can be a key tool in reducing workplace stressors for individuals with disabilities thus leading to improved career resilience. By developing a career portfolio one is able to better focus on the future and plan for potential barriers. Career development/planning is a valuable tool for enhancing self-management for persons with disabilities.

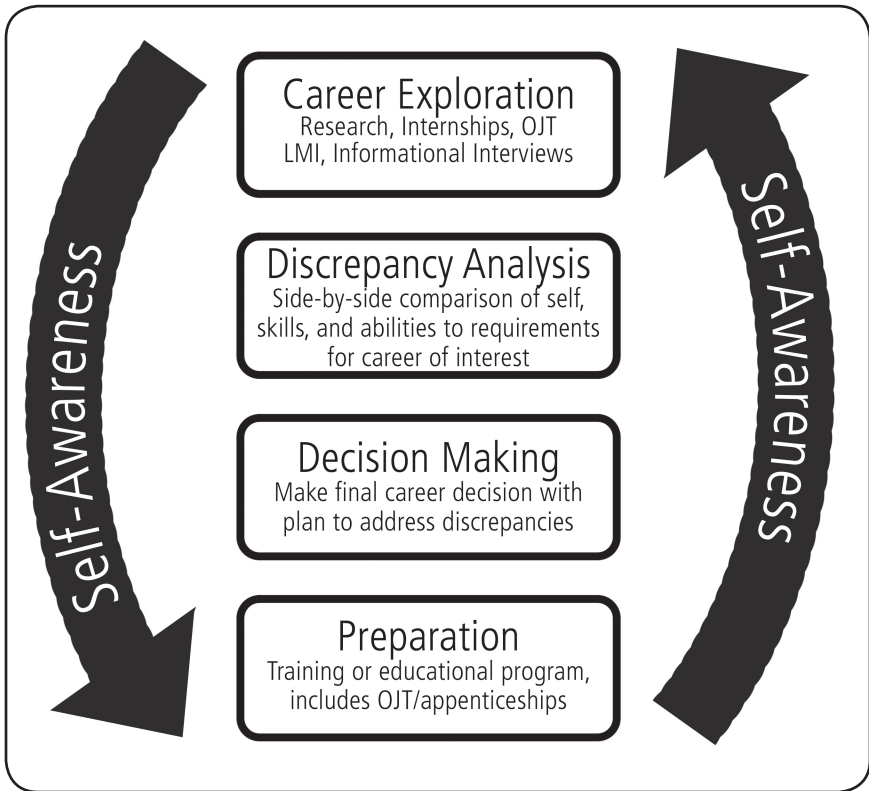
Rumrill & Roessler (1999) examined Donald Super's Life-Career Rainbow model of career development as a framework for delivering VR services. Super's model is comprised of five phases that occur over a life span. The five phases—growth, exploration, establishment, maintenance, and decline—reflect the changes in an individual's motivation, priorities, and ability to carry out specific career related tasks throughout life. More specifically, Rumrill and Roessler (1999) focused on three stages of Super's model that they felt needed to be addressed by the VR system in a more effective manner.

1. Exploration: crystallizing, specifying and implementing a vocational choice
2. Establishment: stabilization, consolidation, and advancement in one's position
3. Maintenance: coping with on-the-job stressors to retain and advance on-the-job

If consumers do not have access to adequate, comprehensive career development services, the impact on long-term career outcomes is likely to be negative.

VE should play a key role in guiding consumers through the career

development process. Hilyer (1997) presents a career development



model for VE that enables the consumer to participate fully and actively in the assessment process from choice to assessment planning. By using the National Career Development Guidelines established by the National Occupational Information Coordinating Committee (NOICC) as the framework, individuals are able to move through each stage of the career development process with the assistance of a vocational evaluator. The NOICC stages of career development are:

1. Self-awareness: Understanding one's interests, attitudes, aptitudes, values, worker style and basic skills as they relate to careers of interest.
2. Educational and occupational exploration: Becoming educated about and understanding requirements for careers of interest by utilizing information resources for research.
3. Decision-making and career planning: Understanding the interrelations between self and the world, and developing skills to make realistic choices and rational decisions about careers.

The NOICC approach presents a career development model that is fluid and enables individuals to move through each phase in a continuous fashion throughout their life and career. This augmented NOICC model includes analysis of discrepancies as a deliberate process in career development and illustrates career development as an ongoing process of self-discovery and decision-making.

By assisting individuals through the career development process, vocational evaluators enable consumers to become more self-aware and able to understand themselves and their relationship to the world of work.

## **Career Resilience and Maintenance**

Collard et al. (1996) present several definitions of career resilience. One of these is “the ability to adapt to changing circumstances, even when the circumstances are discouraging or disruptive” (p. 33). Another definition of career resilience is “the result or outcome of being career self-reliant” (p. 34). Although career self-reliance and career resilience have been used interchangeably, there is a slight difference in the focus of each term. Career self-reliance refers to individual career self-management—taking responsibility for one’s own career and growth while maintaining commitment to the organization’s success; career resilience refers to individual career development—developing the knowledge and skills required to make a visible and personally motivated contribution to the organization and its customers.

The growing contingent workforce and free agency as a norm in American work culture will influence the incorporation of the concepts of career self-management and resilience into the assessment process. Employers no longer guarantee long-term careers, placing the responsibility upon the employee to manage and develop skills necessary for long-term career growth and success. It is no longer enough for evaluators to recommend the next job but rather a series of jobs along a career ladder and avenues for career advancement. Evaluators can assist consumers in preparing for the realities of a career by incorporating the use of portfolios and/or career plan development as the result of the assessment process. Syzmanski (1999) suggests that the portfolio include the sections “current knowledge and skills;” “future goals and required knowledge, skills and experience;” “plan for acquiring necessary skills;” and “stress analysis and strain prevention.” She views portfolios as personal planners that are designed to promote career resilience by establishing a framework for short

and long-term planning. Career resilience is a natural by-product of a career development approach to assessment. It requires consumers to think about and prepare for long-term career development.

## **Staying Current**

### ***Use of Technology***

Because of growing technological advancements and the speed at which these advancements have been integrated into the workplace, vocational evaluators will need to stay abreast of the current tools and technology with which individuals will be required to work. Evaluators should incorporate the use of current technologies during the assessment. Some current examples include: net meeting, web cameras, digital cameras, the Internet for research, memory sticks, scanners, PDA's, computers and popular software. All of these tools enhance effectiveness and productivity in the new workplace and can help individuals with disabilities add value. The key of course, is to stay abreast of the current workplace technologies.

### ***Staying Abreast of Emerging Careers***

The new paradigms require evaluators to be regular consumers of economic and labor market information. The ability to forecast emerging employment trends and emerging careers better enables evaluators to make realistic recommendations for careers that really exist. Doing regular job analysis and community based assessments will help evaluators to have a more realistic perspective on what is truly required in the workplace. The evaluator's "unit" becomes the community. If evaluators are to ensure that individuals with disabilities can fully participate in the new economy, they need to be able to assess for the essential skills in current and emerging careers in science, engineering, information technology, new manufacturing, and higher skilled positions.

### ***Assess for New Workplace Skills (SCANS +)***

In 1991, The Secretary's Commission on Achieving Necessary Skills (SCANS) described essential skills needed to be successful in the 21<sup>st</sup> century workplace (U.S. Dept. of Labor). Those skills were divided into two groups, described as foundation skills (academic, thinking, and personal qualities) and five competency areas (resources, interpersonal, information, systems, and technology).

Though they provide a good foundation from which to build basic workplace competencies, they are no longer enough for success in the 21<sup>st</sup> century workplace. In addition to traditional observations

such as punctuality, dependability and time management, vocational evaluators will need to incorporate observations, such as the ability to learn, organize and understand one's role in a larger system, into the VE process. No longer are basic work skills and behaviors enough for success in the workplace. The ability to add value with or without an accommodation is what will ensure long-term career resilience.

## **Anatomy of Emerging Paradigms**

*Four major components drive the paradigm shifts in vocational evaluation—empowerment, universal design, culture, and individualization.* Each of these components will have a significant impact on the successful delivery of employment and career development services to a changing disability and social landscape. VE, empowerment, universal design, and individualization are unique concepts and resources that distinguish VR from other state and Federal services. Without these beneficial concepts and resources, VR would have difficulty achieving employment success with individuals with the most severe disabilities. The four major components that drive the paradigm shifts in evaluation will be presented in the remainder of this chapter.

### ***Empowerment***

Empowerment is a relative newcomer as a component of rehabilitation and its philosophy and application have been supported through RSA legislation and Commission on Accreditation of Rehabilitation Facilities (CARF) standards. Since the 1970s vocational evaluators have discussed the concepts of client self-assessment and the idea has become realized through terms such as empowerment, self-determination, and informed choice. Unfortunately, full application of the concept of consumer ownership through empowerment and informed choice has been unevenly applied throughout VR and its various services such as VE.

VE is extremely well suited for initiating consumer empowerment because of its focus on systematically collecting, synthesizing, and reporting information. VR consumers must have accurate and useful information about themselves and the world of work in order to make informed choices.

*Vocational evaluation provides the best opportunity for the consumer to engage in the collection of meaningful vocational and career information essential for successful decision-making and planning.* This naturally emerging paradigm in VE shifts the focus of the process and outcome from an evaluation report sent to and used by the VR counselor to plan

services, to a consumer-centered process of exploration and decision-making facilitated by the counselor and evaluator that is dedicated to employment and career development. What was perceived as a difficult and stressful “testing” process that created a hardship for the evaluatee is becoming a consumer-oriented resource geared to opening up realistic and desirable vocational and career options.

A well-designed and flexible evaluation process requires little modification to fully incorporate an empowerment philosophy. Redesigning the VE orientation to describe and initiate the participant’s active role in achieving an employment outcome is the first step. Explaining the role of each instrument and technique and how to use the acquired results in systematic decision-making and planning develops an important sense of consumer ownership in the VE process, and ensures active participation and success in the remaining rehabilitation and employment readiness process. Teaching consumers how to complete and use their own profiles or portfolios as a record of their abilities, interests, needs, and goals provides direction to the consumer, the VR counselor, and other service providers in achieving success in satisfying and stable employment. What is included in the VE report for the counselor is also reflected in the profile or portfolio in language the consumer can understand and use.

As consumers learn about themselves in the VE process, they also learn how to enter the data on their “profile” sheets. Once they engage in career exploration they learn how to record job information on the same profile for matching, planning, and decision-making. With a “portfolio,” consumers enter information on a profile as described above, but have the benefit of an additional section within their workbook in which to file key information and materials for later retrieval and use (e.g., Social Security number, resume, references, diplomas and certificates, transcripts, test and work sample reports, employment resources, and job information). Profiles and portfolios are available in hard copy (e.g., notebooks, workbooks) and through computer software and Internet career sites. Consumers own and control their workbooks and can take them home to complete assignments that can help internalize information about self and the world of work (e.g., searching for job openings, learning about specific jobs through the library, local paper, telephone book, or the Internet). More time will be needed to fully involve consumers in this comprehensive empowerment process. However, this increased time can be offset through the implementation of empowerment groups

that serve several participants at one time. Consumers ultimately learn the lifelong skill of how to conduct ongoing self-assessments and job assessments for continual career development.

Vocational evaluators can provide consumers and counselors with open-ended recommendations to aid in the long-term career development process (Thomas, 1997). An open-ended recommendation describes future career options for a consumer that is based on the primary recommended job, and offers a plan(s) of action that can be followed to achieve the targeted career goal. For example, a 20-year old female with a learning disability who lacks a high school diploma has expressed a desire to become a Registered Nurse (RN). She is unsure about returning to school and would like to consider immediate employment. An initial recommendation for employment as a nurse aid or in another entry-level health care position in an environment where she can work with nurses would give her an opportunity to acquire knowledge of the role of a nurse and other health professionals (career exploration), gain confidence and work experience in a medical setting, and learn and use medical terminology—an essential skill in medically related education and employment settings. When she gains sufficient confidence in her skills and abilities, and makes a decision as to the health field that is right for her she can begin the planning process with the portfolio she was previously taught how to use. She might choose an option from the open-ended recommendation to continue working and enroll in a local community college part-time (possibly with financial support from her employer who has an interest in upgrading her skills). With the assistance of the disability support services office, she could prepare for and pass her GED. Her next step would be entry into the college's RN or an allied health degree program that would lead to her desired career. Her current work experience will be an asset to admissions and classroom success, and her portfolio would be the means by which she can plan her move from the initial job to her career choice without the need for additional VR services.

Although the empowerment and portfolio implementation process may begin in earnest with the vocational evaluator, it should continue with the VR counselor through planning and monitoring, and other rehabilitation service providers who can contribute to the consumer's ability to ultimately attain desired employment. When all members of this interdisciplinary empowerment team (consumer included) work together using a uniform process, continuity in ser-

vice delivery is achieved and lasting success optimized. The emerging paradigm would require that rehabilitation and employment teams be created with well defined, overlapping roles that facilitate a seamless service delivery model from VE to successful employment, including ongoing, individually initiated career development throughout the consumer's remaining work life.

### ***Universal Design***

Universal design has direct application to VE and the VR service delivery system. Assistive technology (AT), more commonly known and understood within the rehabilitation sector, falls under the concept of universal design. Whereas AT is an individualized process with a specific functional outcome for individuals with disabilities, universal design and access is a broader and more holistic plan that affects all environments and individuals. Universal design addresses issues related to physical functioning and learning without the need for adaptation. Universal Design for Learning, which emphasizes instruction and assessment as defined by The Ohio State University Partnership, includes all learning styles through specialized design of course content and materials (Smith, 2003). The North Carolina State University Center for Universal Design has focused attention on physical design and access.

Universal Design is the design of products and environments to be used by all people, to the greatest extent possible, without the need for adaptation or specialized design. The intent of universal design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities. (The Center for Universal Design, 1997b)

The following seven Principles of Universal Design (The Center for Universal Design, 1997a) play an important role in the assessment process in guiding AT decisions and the future application of Universal Design in assessment and rehabilitation service delivery.

1. **Equitable Use:**

The design is useful and marketable to people with diverse abilities.

2. Flexibility in Use:

The design accommodates a wide range of individual preferences and abilities.

3. Simple and Intuitive Use:

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

4. Perceptible Information:

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

5. Tolerance for Error:

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

6. Low Physical Effort:

The design can be used efficiently and comfortably and with a minimum of fatigue.

7. Size and Space for Approach and Use:

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

As universal design for learning and physical access becomes more widely and commonly applied throughout every environment it will minimize the need for individualized assistive technology services. Without universal design and AT, rehabilitation counselors and other service providers would find it difficult if not impossible to help individuals with severe physical and mental disabilities to fully achieve their personal goals in independent living, transportation, education and training, and work. As vocational evaluators and AT specialists incorporate universal design into the evaluation, rehabilitation, and transition processes, consumers experience greater independence and opportunity that translates into higher levels of more satisfying education and employment. A more specific focus on AT provides direct application of universal design to a consumer's everyday life.

Assistive technology is not a new concept or service. It has opened up new opportunities for people with disabilities in learning, living

and working settings for several decades. Other terms that have been synonymous with AT, with minor variations, include rehabilitation engineering and rehabilitation technology.

Assistive technology and VE are complementary services and an excellent match for comprehensive service delivery. Through real and simulated work and learning experiences, evaluators can identify an individual's learning and employment potential and the services needed to achieve even greater potential, including AT. Given the work orientation of evaluators and reliance on instruments and techniques to answer questions and formulate recommendations, AT is a natural fit within their expanded role in the emerging paradigm. A team approach combining the expertise of a vocational evaluator and an assistive technology professional (e.g., AT specialist, technician, rehabilitation engineer) as now practiced in a few isolated settings, would maximize the effectiveness of both services and enhance consumer satisfaction and success.

When individuals with disabilities participated in VE without the prior benefit of AT services, results of the evaluations were unable to take advantage of customer's improved functioning, thus leading to less than optimal outcomes and recommendations. When a VE report recommended AT and the service was offered, a follow-up evaluation was usually not provided, though it might have determined the accommodation's effect on improved functioning and potential, and generate additional recommendations for expanded opportunities. When assistive technology evaluations and tryouts can be simultaneously offered within vocational evaluation, the efficiency of the services can be maximized and VE and AT recommendations combined to optimize rehabilitation and employment success.

## **Culture**

The concept of culture and its impact on rehabilitation in general, and VR evaluation specifically was an area that was largely ignored in the past. If culture was taken into consideration at all during VE, it was usually a brief afterthought, with no real overt attempt to include cultural issues as a component of the evaluation process. During the last few decades there has been a movement within the rehabilitation field to include cultural issues that affect services to individuals with disabilities from diverse cultures. Multicultural counseling has been one of the most important issues in the last decade, becoming critical within the counseling field (Lee, 1991). It is clear that culture has a

significant impact on every aspect of an individual's life, including VE results. All phases of the VE are affected by culture, from the assessment of work performance, to the results of standardized testing and behavioral observations. Culture also affects the participant's view of the assessment and the VR system (Power, 2000). There is evidence that individuals with disabilities from cultural minority groups have much higher rates of disability and are consistently underserved (National Council on Disability [NCD], 2003a). Feist-Price and Kundu (as cited in National Council on Disability [NCD] 2003b) found that persons with disabilities in the dominant culture do not experience the multitude of barriers faced by individuals with disabilities from minority cultural groups. Outcomes, as well as service quality, are less favorable for persons with disabilities from minority cultural groups. To serve individuals with disabilities in the manner they deserve, the examination of the role of culture should be an integral part of the VE process.

To determine how culture affects VE, culture and the related terms must first be defined. Culture has often been viewed within very broad categories, usually related to racial and ethnic categories. In the United States references have often been made to the dominant Caucasian/White/Euro-American culture, and what would be referred to as the minority cultures, including the African American/Black, American Indian/Native American, Asian American/Asian, and Hispanic/Latino cultures. Middleton et al. (2000) describe these minority categories as the four "visible" groups, which have been underrepresented in VR in the past. Often, when culture has been discussed, it has been limited to these broad categories. Goode (as cited in NCD 2003b) describes culture as "the integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values and institutions of a racial, ethnic, religious, or social group." This definition will better serve to be inclusive of all cultural groups and subgroups. Thus, for the purposes of this publication, the definition by Goode (as cited in NCD 2003) will be utilized. The term diversity is also utilized quite often and much like culture there are many definitions of diversity. Rasmussen (1996) defines diversity as "The mosaic of people who bring a variety of backgrounds, styles, perspectives, values, and beliefs as assets to the groups and organizations with which they interact." This definition obviously refers to everyone, thus like culture it is inclusive. In addition, and most importantly, this definition is clear that diversity is an

asset (Rasmussen, 1996). In addition to previously mentioned groups, all other cultures are included, such as those that may be disability specific, such as the Deaf community, the deaf/blind community, and the blind community. Also included are the gay/lesbian community, individuals/groups with gender identity issues, and any other group that has similar cultural characteristics. Last, the term minority is often used in relation to culture and diversity. Formerly, the term minority referred to people who were not Caucasian/White, or part of the dominant racial/cultural group. The term is now being used to designate individuals who are part of any group or subgroup that is not the majority culture due to some characteristic that may or may not be racial. This change has taken place in response to demographic changes in the society. In some areas the minority/racial group is now the majority and there is a realization that there are other minority groups, such as persons with disabilities or older individuals (Rasmussen, 1996). Thus the term “people of color” is gaining popularity for individuals that are from a racial minority and the Hispanic/Latino cultures (Rasmussen, 1996).

The general population in the United States has become an increasingly diversified group over the last 30 years. Cultural minorities comprise over 40% of the population. In addition to cultural minority groups that have been in the country for generations, the immigration of individuals from other cultures continues to increase. In thirty years the ratio of foreign-born persons in the United States has increased from one in twenty to one in ten (Jezewski & Sotnik, 2001). Today with the population of this country increasingly culturally diverse, best practices would appear to dictate the examination of culture in the most comprehensive manner. For example, the American Indians/Native Americans are often grouped together as one homogeneous group. Society has been conditioned by books, movies, and the media to look at the American Indian as a single cultural entity. In reality there are more than 500 federally recognized American Indian Tribes throughout the United States. Historically, most of these tribes seldom had contact and there was, and is, enormous diversity among the various tribes (Jezewski & Sotnik, 2001). There are many cultural differences among the tribal groups/subgroups, including social structure, economic systems, and language. They often have differing kinship or clan systems, rituals, ceremonies, healing practices, burial practices, and mythology. An individual from the Potawatomi Tribe in the Midwest would display many cultural differences from an indi-

vidual that is a member of the Hopi Nation in the Southwest.

The tendency to perceive the broad cultural and/or racial groups as single homogenous entities is not limited to the American Indian. Often the Asian American/Asian, African American/Black, and Hispanic/Latino cultural groups are looked at as a single cultural group, similar in most aspects. It is clear that an individual from Viet Nam has many cultural differences when compared to an individual from India, China, or Japan. An African American from Georgia may have great cultural differences from an individual of African decent who was raised within the Haitian Culture, and both would exhibit many cultural differences from a recent immigrant from Nigeria. In the United States, the ten largest foreign-born groups by country of birth include four countries that would be considered Hispanic/Latino Cultures, including Mexico, Cuba, Dominican Republic, and El Salvador (Schmidley & Campbell, as cited in Jezewski & Sotnik, 2001). Even though individuals from these cultures are all considered Hispanic/Latino, they have many cultural differences that would affect the way they function. It is obvious that many cultural influences cannot be generalized in broad cultural terms. There is a multitude of cultural issues and factors that impact individuals with disabilities and the way they function within the vocational evaluation. Rasmussen, (1996) describes primary and secondary dimensions of diversity. Primary dimensions are those that cannot be changed, including race, ethnicity, gender, sexual orientation, age, and physical qualities (Rasmussen, 1996). Secondary dimensions of diversity are those that individuals have some power to change, including geographical location, marital status, religious beliefs, education, parental status, income, and military experience (Rasmussen, 1996). Whether these factors are considered cultural, issues of diversity, or both, they all may have an impact on the VE process.

Aspects of a person's culture may affect the perception of disability and the acceptance of treatment and participation in VE (Power, 2000). The Euro-American would likely perceive that a disability is the result of an accident or disease, accept the condition, and would seek treatment (Jezewski & Sotnik, 2001). An individual from the Dine/Navajo Nation may believe that illness and disability are caused by a state of disharmony within the spirit, mind and body. The disharmony may be due to the violation of a tribal taboo or an evil power/witchcraft. For the traditional individual, treatment may be limited to traditional healing practices, while others may seek modern inter-

ventions, or both, depending on the level of acculturation (Pichette, Garrett, Kosciulek, and Rosenthal, 1999). An individual from Korea may believe that a disability is a curse of the devil or a punishment from God, or they may feel the disability is a result of the mother violating an expected practice while pregnant (Kim-Rupnow, 2001). An individual with these beliefs may feel that the disability is fate and not seek treatment. An individual from Viet Nam may have a traditional view that disability is caused by sins committed by ancestors, or they may have a more modern view that the disability was a result of the Viet Nam War and exposure to Agent Orange (Hunt, 2002). Individuals with the traditional view would be much less likely to seek treatment, due to the shame associated with the disability, while those with the modern view would be more likely to seek intervention (Hunt, 2002). Culture affects every aspect of life and all rehabilitation professionals involved in the vocational evaluation process should do everything possible to explore the various aspects of culture and/or diversity that affect the consumer and the evaluation process.

The consumer that comes from a culture that is less likely to seek intervention for a disability may be quite uncomfortable with the VE process. They may often distrust the process and assume that the process is unfair to individuals with their cultural background (Power, 2000). The cultural exploration should go beyond a person's broad cultural background and examine every aspect of a person's culture. It is the individual and the way his/her personal cultural experiences are manifested that must be closely examined and considered when conducting a VE. The consumer participating in the VE is often the best source of cultural information.

When considering the VE and cultural implications, all phases of the evaluation must be examined for cultural issues that will affect outcomes. The evaluator should examine the proposed evaluation components to determine any problems and be willing to utilize the most appropriate methods to evaluate the individual, (Power, 2000). Beginning with the evaluator's initial contact with the referral source all cultural factors should be considered, and efforts should be made to learn as much as possible about the consumer's culture prior to first contact. The interview with the consumer should be a time to further evaluate the consumer's cultural background, degree of acculturation, and general comfort level with the VE process. To increase the consumer's comfort level, the inclusion of family members and others close to the consumer may be encouraged. In the ideal

situation, an evaluator from the consumer's culture is available. Often that is not possible, and the use of an intermediary or liaison from the consumer's community may assist in the process, providing language interpretation, if needed, and acting as a bridge between the consumer and evaluator. The availability of a liaison from a diverse cultural community is greatly enhanced by a consistent and ongoing outreach program by VR agencies dedicated to improving services to that community.

The use of standardized measures must be examined to ensure that the consumer's potential for employment is realistically assessed. There has been much research concerning the use of standardized measures with minority and culturally diverse populations, and resulting evidence that many measures do not accurately assess individuals from these groups. Sue (as cited in Austin, 1999) found that cultural bias and errors related to ethnocentricity regularly occur in test administration and interpretation. The evaluator should make every attempt to determine if the measure is appropriate given the consumer's cultural background. The evaluator should examine the conceptual equivalence, which refers to the meaning of the constructs that are assessed, to ensure that no culturally-based conflicts exist (Power, 2000). Care should be taken to ensure that the instrument has been normed with a group that is consistent with the cultural background of the consumer. The question of language should also be examined to determine if the measures are appropriate given the consumer's culture and language abilities (see Chapter 6, Language and Communication). The evaluator may choose to utilize other methods of assessment when standardized measures are not appropriate. The evaluation may focus on situational assessments where performance on culturally appropriate tasks would provide needed information. In addition, behavioral observations may be utilized to a much greater extent than usual. The evaluator should be flexible and creative during the VE process. Evaluators should determine what is culturally appropriate and strive to utilize methods of evaluation that will result in a true and accurate assessment of the consumer's potential.

Throughout the VE observations are made and interpreted and included in the assessment results. The consumer may be observed while participating in the evaluation interview, while taking tests, during the administration of various work samples, and during an ecological assessment/situational assessment in a real work environment. Observations tend to focus on the analysis of a variety of be-

havioral characteristics. There are many behaviors commonly analyzed, including communication abilities, social interactions, ability to work independently, attendance and punctuality, appearance and hygiene, and general task performance. If appropriately interpreted, the analysis of these characteristics may provide valuable information related to a person's vocational potential and ability to function within a work environment. The cultural aspects of an individual's behavior should always be considered when analyzing behavioral observations.

The manner in which an individual communicates or interacts with others is culturally based and should be evaluated with that in mind. Evaluators should have as much information as possible regarding the verbal and non-verbal communication patterns that vary with the cultures of the consumers they serve. Verbal communication in the dominant American method tends to be very direct and exact, while in other cultures, verbal expression is much less direct and is related to the situation at hand (see Chapter 6, Language and Communication). In addition to verbal communication, non-verbal communication must be understood to appropriately evaluate an individual. A variety of non-verbal actions may differ cross-culturally, including hand gestures, personal space, eye contact, and the amount of non-verbal expressions versus verbal utilized to communicate. The "OK" sign in the U.S., with the thumb and forefinger is very insulting to someone from Brazil, and greetings such as a handshake, acceptable in the U.S., would be offensive in Japan (Jezewski & Sotnik, 2001).

Personal space between individuals in social or work situations vary with culture. Hall (1966) reported that Americans tend to feel comfortable with a distance of 4-7 feet, while an individual from France or the Middle East would tend to move much closer. When assessing social interactions within the context of the VE, an individual that always tended to move closer to others may be seen as overly friendly, or somewhat aggressive, when they are only adjusting to their culturally-based comfort level. Some cultures tend to use much more non-verbal communication and less verbal than is common to most individuals from the dominant American culture.

The results of a study conducted by Long (1999) indicated that Cherokee children who only speak English tend to use less verbal communication than individuals from the dominant culture (see Chapter 6, Language and Communication). Consumers from cultures that utilize less expressive language may be unfairly labeled as

uncommunicative or withdrawn when assessed during a VE. In the final analysis, the cultural factors related to communication should always be closely examined.

The concept of being punctual on a job, or to an appointment, is related to the concept of time. Various cultures have different concepts of time and place different values on punctuality. The dominant American culture values strict adherence to timelines while others, such as Hispanic/Latino cultures tend to be less concerned with promptness (Jezewski & Sotnik, 2001). American Indians/Native Americans often refer to “Indian Time” to describe the tendency to ignore strict timelines in favor of a more relaxed view of life. At a Pow Wow, Grand Entry may be scheduled for 1 p.m., which means it may actually start by 2 p.m., give or take a while. For individuals from cultures that place less emphasis on punctuality, the results of a VE may incorrectly label them as irresponsible. Individuals tend to learn to adjust to work-related timelines, when given the appropriate support and “time,” which a VE may not provide.

The vocational evaluator must learn as much as possible, given available time and resources, about the culture of the consumer being served. Often, there will not be time to become an “expert” on a given culture, but the evaluator must increase cultural awareness as much as possible. A few, but by no means all, resources that can be utilized to increase cultural knowledge are listed below:

- Individuals from target culture within state VR agency, as well as other state/federal departments
- Centers for Independent Living
- Cultural/social organizations within geographic area; if unavailable, seek organizations in nearest large urban areas. Examples; Latino/Hispanic Family Services, NAACP, Urban League, Urban American Indian Organizations, and culturally specific social clubs
- Religious organizations that may serve specific cultures
- University/college departments and student organizations that are culturally specific, locally or nationally
- Web sites. Most Federal and State recognized American Indian Tribes have their own Web sites, as do many cultural orga-

nizations. Also, basic cultural information is available through various search engines.

- Consumer's family and friends
- Often the best source, the consumer

Many of the above resources may also have leads to other resources. Often it is the creativity and flexibility of the evaluator that results in a culturally appropriate evaluation. Historically, evaluators have adjusted many aspects of an evaluation to ensure that a disability did not affect the positive outcome of a VE, and extending this practice to culture is a logical next step.

When examining culture and its impact on the VE process, the culture of the consumer is not the only factor to be examined. The evaluator, other rehabilitation professionals, and organizations/ agencies should examine their own cultural backgrounds and biases. Middleton et al. (2000) stated that individual cultural biases are formed by the individual's cultural values, thus evaluators and other rehabilitation professionals must engage in a cultural self-evaluation. The term cultural competency is often utilized in rehabilitation today. The National Center for Cultural Competence has embraced the following definition and conceptual framework of cultural competence based on the work of Cross et al. (1989).

Cultural Competence requires that organizations:

have a defined set of values and principles, and demonstrate behaviors, attitudes, policies, and structures that enable them to work effectively cross-culturally.

have the capacity to 1. value diversity 2. conduct self-assessment 3. manage the dynamics of difference 4. acquire and institutionalize cultural knowledge and 5. adapt to diversity and the cultural contexts of the communities they serve.

incorporates[sic] the above in all aspects of policy making, administration, practice, service delivery, and involve systematically consumers, key stakeholders and communities.

CARF has realized the importance of cultural/diversity issues and

has taken action to reinforce their commitment to the principles of nondiscrimination and inclusion. Each of CARF's accrediting divisions applies standards, based on these principles. The standards require sensitivity to racial, ethnic, and cultural beliefs of the persons receiving services.

It is obvious that issues of culture and diversity must be thoroughly integrated into the VE process. The inequitable evaluations experienced by various cultural groups, including the American Indian/Native American, African American/Black, Asian American/Asian, Hispanic/Latino, Gay and Lesbian, the deaf community, the deaf/blind community, the blind and all other cultural groups must stop. All agencies, organizations, and rehabilitation professionals must adhere to the values of cultural competency if the discrimination experienced by so many individuals is to cease. The VR system and the individual rehabilitation professional have an obligation, first and foremost, to serve persons with disabilities. This service must be provided without bias and in a manner consistent with the ethical principle of justice. Hopefully, the need for a section on culture and diversity will not be necessary in the future. Hopefully, society and the rehabilitation profession will have embraced diversity and truly value diversity. All must cherish what everyone, from every culture, brings to this society and profession. Hall (1977) stated "man needs the experience of other cultures. I.e. to survive, all cultures need each other."

## **Individualization**

Most VE services have a general process that can be adapted to varying service needs (e.g., consumer goals, referral questions, type and severity of disability). However, time and cost constraints are just a few of the variables that limit the evaluator's flexibility in individualizing the VE process. When vocational evaluators have the opportunity to use different instruments and techniques (e.g., interviewing, standardized tests, work samples, situational assessment, community-based assessment, career exploration, portfolio development, universal design/AT assessment) to tailor the evaluation to specific consumer characteristics, needs, and desires then more valid and useful results can be achieved. The length of evaluation and the types of instruments and techniques to be used are interdependent (i.e., the more instruments and techniques used, the longer the evaluation). For example, a participant with a severe mental disability being considered for supported employment might profit from situational assessment

and on-the-job evaluation requiring several weeks; whereas a college graduate with paraplegia considering additional education in accounting may only need standardized testing requiring a day or less. If the evaluator does not have flexibility in individualizing the process to use the most appropriate instruments/techniques then the recommendations will not be consumer-driven and rehabilitation and employment success minimized. *When consumers are forced to fit a "one size fits all" evaluation process, then a restricted range of recommendations will be forced to fit every consumer. It is reasonable to assume that if the process is not individualized then the recommendations cannot be individualized (i.e., the scope of the recommendations will reflect the scope of the process).*

Referral questions are an important means by which counselors and consumers can express what they want from an evaluation, and evaluators can choose what will efficiently and effectively answer those requests. Pre-evaluation staffings can be used to reach consensus on the appropriateness of the questions and proposed evaluation plan. Complex questions may require a more comprehensive evaluation. In addition, plans can be modified when results indicate that another direction needs to be taken and other instruments and techniques used. This mutually agreed upon extension in evaluation among consumer, counselor, and evaluator will ensure that new questions can be formulated and the most appropriate employment and career directions identified based on the new questions.

The nature and extent of a disability also influences the content of the evaluation. Many evaluation instruments and techniques are disability sensitive, in that what works well for one individual with a disability may not work well with another consumer with a different disability. For example, Montgomery (1996) found that in evaluating consumers with chronic mental illness, the probability of predicted success of psychometric testing was 20%, while situational assessment was 68%, results also supported through similar findings by Anthony and Janson (1984). Consumers who have disabilities that affect processing speed (e.g., depression, TBI, stroke) will perform much better on untimed rather than timed tests, thus extending the length of evaluation in situations where the use of untimed instruments is required.

Vocational evaluations of varying length and complexity should be available to the consumer, VR counselor, and evaluator to fully answer individualized referral questions and give consumers accurate and complete information that can be used in the empowerment process

of informed choice. Vocational evaluations of varying length are not a new concept since the choice of instruments and techniques to be used are influenced by consumer and counselor issues and needs.

Reaching agreement on specific referral questions to be answered helps consumers and VR counselors better understand what will be required in evaluation to achieve their desired information outcomes.

The content and outcome of a two-hour evaluation is different than the content and outcome of a two-week evaluation, and understanding these different expectations and outcomes by the length and content of the VE service will ensure that consumers and VR counselors will appreciate and respect the individualized nature of the process. Someone with good academic and functional skills may profit from a relatively brief evaluation process consisting of an interview, and interest, work values, and aptitude testing, possibly ending in profile development and self-guided computer-based career exploration. Someone who is test anxious would require a heavier reliance on work samples that need more time for administration than psychometric tests, supplemented with the development of a profile or portfolio. An individual with severe or multiple disabilities (e.g., dual diagnosis) who cannot read and may need extensive support during evaluation might require an AT assessment, and situational and community-based assessment, ending in portfolio development. A "one size fits all" VE process cannot effectively or efficiently meet the evaluation and information needs of these three different consumers, illustrating a strong case for individualization. The cost of individualized evaluations will often create compromises between what is wanted and offered, but it is important to remember that the cost of a VE that provides consumers and counselors with useful information that ultimately leads to employment success may be the most cost-effective service a counselor can purchase.

## **Conclusion**

The new and emerging paradigms in VE reflect changes that address VR philosophies and regulations which emphasize consumer individualization, empowerment and informed choice, career development, collaborative use of universal design, cultural recognition and competence, and a focus on the evolving labor market. Limitations in time and resources within the VR process have had a negative impact on the effective and efficient delivery of evaluation services and

have minimized its thoroughness and utility. The ability to provide consumers and counselors with information and resources to make consumer-driven job choices and engage in life-long self-assessment and ongoing career development enhances ownership in the process and its outcomes, and ensures employment satisfaction and success. Vocational evaluation has always been open and adaptable to change and flexible in its ability to meet the needs of VR and the people it serves. Some of the new and emerging paradigms have been available to the field for some time but have only been offered in isolated settings. The goal of the paradigm shifts is to ensure that dynamic and individualized evaluations are offered uniformly to consumers and counselors across the country to maximize employment success

## Self-Study Questions

1. The four major components that drive the paradigm shifts in vocational evaluation include, empowerment, universal design, culture, and:
  - a) assistive technology
  - b) service planning
  - c) individualization
  - d) employment outcome
2. Portfolio development is part of the (blank) process.
  - a) empowerment
  - b) report writing
  - c) situational assessment
  - d) job placement
3. SCANS refers to:
  - a) new process of computerized self-scoring assessment
  - b) the essential skills needed to be successful in the 21<sup>st</sup> century
  - c) workplace
  - d) a long-term follow-up process
  - e) consumer resource development through career exploration
4. Universal design refers to the design of products and environments usable by all people without the need for adaptation, and also to universal design for:
  - a) learning
  - b) evaluation and assessment
  - c) technology
  - d) transportation
5. Open-ended recommendations used within the empowerment process refers to:
  - a) culturally sensitive and appropriate jobs for non-English speaking individuals.
  - b) employment support needs for consumers being recommended for supported employment services.
  - c) the myriad of services that will be needed by a consumer before employment can be considered.

- d) the description of future career options for a consumer that are based on the recommended job.



## **Chapter Three**

# **Evolution of Vocational Evaluator Knowledge, Skills, Abilities, and Roles**

Vocational evaluators possess a unique set of knowledge, skills, and abilities (KSAs) that can be used to serve a variety of clientele in varied settings. Their KSAs and the roles they play in rehabilitation, workforce development, and education have “grown in complexity and scope” (Boyer-Stephens, Waechter, and Newman, 1999) since the first role and function study was conducted by Coffey in 1978 (Coffey, Hansen, Menz, and Coker, 1978). The historical development and factors that have influenced vocational evaluators’ KSAs and roles are described elsewhere in this document. Different KSAs are required of vocational evaluators than for other professionals involved in rehabilitation, workforce development, and education. Others may conduct assessments, but not comprehensive vocational evaluation. For example, VR counselors conduct initial, cursory assessments to determine who should be referred for vocational evaluation as well as for other evaluations that can inform rehabilitation planning (e.g., neuropsychological, occupational therapy, speech).

Evaluators demonstrate “an exclusivity of skill and practice that distinguish vocational evaluation from vocational assessment” (Ayella & Leconte, 1987, p. 20). Assessment can be practiced by coun-

selors, educators, supported or customized employment specialists, etc., whereas evaluation “once known as the assessment of last resort” (VEWAA Project, 1975), typically is more comprehensive, in-depth, and complex; and it is planned, coordinated, conducted, and initially interpreted by vocational evaluators. At times, people question if the roles of VR counselors and vocational evaluators are the same. A study conducted by Sink & Porter (1978) found that although many functions do overlap, there were sufficient differences in competency requirements to warrant two distinct roles in the rehabilitation process. With the increasing complexity of serving people with the most severe disabilities, these distinctions are becoming more pronounced.

Vocational evaluation evolved as an alternative to standardized and/or cursory assessment practices for people who face major challenges to vocational preparation, career development, and employment (Nadolsky, 1971; 1983; 1984; VEWAA Project, 1975). It has followed the path that Julian Nadolsky predicted in 1984:

The development of a concept often takes years, decades, or even generations before the practical application of that concept is fully recognized, accepted, and rendered operational. Furthermore, as a concept develops, several noteworthy, but isolated, attempts may be made to apply that concept in different settings prior to its acceptance and widespread application. Such was the case with the development of the concept that underlies the experiential, work-related approach to vocational assessment, which has become known as vocational evaluation. (p.1.)

Today, VE is an accepted, proven practice and alternative to vocational assessments that rely exclusively on standardized or psychometric tests—a practice that can be discriminatory to people with disabilities. A body of knowledge undergirds the service and a profession has evolved from its practice. Professionals who practice VE are able to conduct all levels and types of vocational assessment, but their distinctive skills are demonstrated within work environments where work functions help define their roles.

Evaluator roles are often shaped or refined by the diverse needs of consumers, advancing technology, an ever changing labor market and demands of specific service systems. For instance, vocational evaluators in hospitals work in tandem with occupational and physical

therapists and work hardening specialists. They may be called upon to help measure the distance between ladder steps on an oil container truck or orient a supervisor for a situational assessment in the medical records department. Evaluators working in the state–federal rehabilitation system work closely with the VR counselor and, possibly, a job development and placement specialist or an employment specialist to plan community–based assessments with the consumer. Though roles and functions may vary within settings or systems, those identified in the figure Vocational Evaluator Roles and Functions Emerging from the Evolution of Vocational Evaluation, remain thematically consistent. Importantly, the nature of VE demands that evaluators participate as members of multidisciplinary teams to receive and provide information and make recommendations for planning. The primary partners on these teams are the consumers. Thus, evaluators must have skills to work with a variety of individuals who have different types of disabilities from diverse cultural backgrounds (Arthur, Bjorlie–Ellis, Collins, Colyer, Denton, and Smith, submitted for publication).

On the other side of the multidisciplinary coin, VE is a team effort, where evaluators are the primary professionals responsible for synthesizing and integrating findings from counselors, the consumer, employment specialists, assistive or rehabilitation technologists, educators, and others into useful, vocationally relevant and valid information (e.g., a VE report and recommendations). As in any professional practice, skills of the evaluator (more than any “instrument” or method) remain the most critical ingredient in vocational evaluation service delivery. Among the many KSAs needed by evaluators, their understanding of work, work requirements, and demands rank high in the hierarchy. Evaluators must have in–depth understanding of disability, rehabilitation, community resources, learning, and the clinical use of methods, techniques, and strategies to bring together pertinent and useful information that provide a complete, accurate, and unique “picture” or profile of consumers.

Numerous role and function studies are available along with CVE (Certified in Vocational Evaluation by the Commission on Work Adjustment and Vocational Evaluation Specialists) certification and CARF (Commission on Accreditation of Rehabilitation Facilities) accreditation standards that define the roles and expectations of vocational evaluators and evaluation services. However, many of the emerging paradigms in vocational evaluation rely on skills and approaches that have been practiced to some degree in innovative pro-

grams and that have been noted in vocational evaluation literature and graduate education programs for several years.

The following section provides an overview of how the functions of the vocational evaluator have evolved over time—into its transformation of a role that reflects high social value.

### **Selected Role and Function Studies**

Several early role and function studies examined the roles and specific job duties of traditional vocational evaluators. One of the first studies identified 175 primary competencies (Coffey, Hansen, Menz, and Coker, 1978), with the following identified as the top five competencies: report writing; effective communication with “clients,” staff, and other rehabilitation personnel; functioning as a professional team member; accurate interpretation of evaluation results; and formulating logical job, work area, or training recommendations based on evaluation results.

Other studies identified similarities in job function between school-based evaluators and those in rehabilitation settings (Ellsworth & Noll, 1978) and, again, similarities between vocational evaluator and VR counselor roles (Sink & Porter, 1978). The latter study found that many job tasks of evaluators and counselors were similar to varying degrees, but significant differences were found in the amount of time spent on each activity and the level of importance assigned to duties. For example, both evaluators and counselors conduct file reviews. Counselors review files to determine eligibility and plan rehabilitation services overall. Evaluators review files to plan vocational evaluation services, verify assessment results, and help formulate recommendations. Although the goal for consumers is the same in both cases (i.e., stable and desired employment), the processes of counseling and vocational evaluation differ. Role and function studies help inform standards for vocational evaluator certification that can be based on nationally recognized and uniform sets of competencies.

Each decade subsequent to the 1970s has produced at least one national role and function or competency study for vocational evaluators (Leahy & Wright, 1988; Taylor, Bordieri, and Lee, 1993). Of the most recent, two were qualitative (Boyer-Stephens, Waechter, and Newman, 1999; Newman, Nolte, and Boyer-Stephens, 1998). The latest was conducted by Hamilton (2003) and sponsored by the Commission on Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES): *The Role and Function of Certified Voca-*

*tional Evaluation Specialists: A Survey of Practice in North America.* Two studies were conducted exclusively with Certified Vocational Evaluation Specialists: Taylor, Bordieri, and Lee, 1993 and Hamilton, 2003. This research identified common knowledge areas and job functions. However, the most recent study noted changes that reflect the legislative, policy, consumer-driven and technological trends described in this document (see Chapter 9). These findings confirm Thomas' prediction (1997, 1999) that vocational evaluators must lead the way for change in their practices.

Vocational evaluations that create consumer ownership of the information gained and how it is used in a participant-driven process, call for additional and innovative sets of skills. For example, Hamilton (2003) found that newer knowledge and job functions, "such as assistive technology, collaborative skills, basic negotiation and mediation skills, multiple and emotional intelligences, multiculturalism, Web-based resources, psychiatric and psychosocial implications, psychopharmacology and substance use/abuse, and benefit systems" (p. 187-188) rated highly at or above moderate importance to respondents. These new items were integrated into existing knowledge domains and job functions. Hamilton concludes that "domains have broadened and increased in complexity....and the required knowledge base has expanded beyond the medical aspects of disability to encompass" (p. 188) the above-mentioned areas and those manifested in community settings.

The following figure identifies some of the roles and related functions that capture the KSAs required of evaluators and others that have emerged as a result of professionals encouraging acknowledgment of the social value and appreciation of evaluator expertise and services. Vocational evaluators may perform all of these functions or only specific ones, depending upon their work settings and multidisciplinary team assignments. The roles and functions represented here include traditional areas, according to all prominent role and function studies, and those that are emerging. The organization integrates the three roles for vocational evaluators (i.e., vocational and career expert, disability specialist, and educator) that Thomas (1997, 1999) has urged professionals to assume to increase the recognition and social value of vocational evaluation as essential for improving employment and career development outcomes for all members of society, especially people with disabilities. Functions may overlap with VR counselor activities or employment specialists. All functions contribute to con-

sumers’ informed choice, individualization, cultural factors and empowerment.

*Vocational Evaluator Roles and Functions Emerging from the Evolution of Vocational Evaluation*

Role	Function
Vocational Evaluation Clinician: one who makes professional judgments and decisions with and in order to serve consumers to their maximum benefits (as opposed to a technician who merely administers and/or scores assessments, similar to what a psychometrist would do).	<ul style="list-style-type: none"><li>• Select and utilize assessment strategies</li><li>• Gather, analyze, and interpret referral and biographical data</li><li>• Conduct behavioral observations and recording of behaviors</li><li>• Evaluate functional strengths, needs, and goals</li><li>• View consumers holistically and within the contexts of work and various ecologies</li><li>• Interpret assessment results</li><li>• Synthesize results and communicate them in an understandable way for multiple uses</li></ul>

Role	Function
<p>Vocational and Career Expert (Thomas, 1997): one who is well-versed in vocational and career information, requirements, competencies, cultures, can replicate or simulate work according to industry standards, and can confer and share information with rehabilitation counselors</p>	<ul style="list-style-type: none"> <li>• Identify and classify possible, local jobs</li> <li>• Design and use of vocationally-relevant assessment instruments, techniques and strategies</li> <li>• Interpret and use multiple occupational classification systems and data bases</li> <li>• Recommend occupations, careers, and educational pathways that are congruent with consumer attributes</li> <li>• Apply educational, competencies, and work requirements to career ladders</li> <li>• Testify on vocational potential and functioning for SSA, courts, etc.</li> <li>• Understand and interpret labor market trends and use labor market information for planning and program development (e.g., work samples, situational assessments)</li> </ul>
<p>Disability Specialist (Thomas, 1997): one who understands the vocational and career implications of various disabilities and can recommend appropriate accommodations for vocational training and work; and who can relate functional abilities and limitations to work required. The evaluator verifies, shares and seeks information with and from rehabilitation counselors.</p>	<ul style="list-style-type: none"> <li>• Analyze jobs and job tasks</li> <li>• Identify vocational implications of specific work, tasks and requirements to individual disabilities, functioning, and needs</li> <li>• Explain vocational implications of various medications</li> <li>• Develop individualized vocational evaluation plans</li> <li>• Plan with sensitivity to significant social, cultural, and economic conditions to limit employment and career barriers</li> <li>• Testify on vocational potential, limitations, and lost earnings</li> <li>• Understand policies, laws, and regulations related to disability</li> </ul>

Role	Function
Assistive Technology Specialist/Liaison: one who can access necessary resources, devices, equipment, and expertise (of Assistive Technology Specialists, or Rehabilitation Engineers) to help ensure a fair and equitable assessment opportunity for consumers. Adapt situational assessment job tasks to facilitate consumer’s performances	<ul style="list-style-type: none"><li>• Utilize adaptive techniques on work samples</li><li>• Access assistive technology resources</li><li>• Modify work spaces and physical placements</li><li>• Create low tech adaptive devices</li><li>• Implement digital applications (e.g., speech to text, text to speech) to instructions and assessments</li><li>• Research and recommend AT resources, equipment, devices, and sources of financing</li></ul>

Role	Function
Advocate: one who models and supports the self-determination of consumers in addition to locating resources, programs, and placements to recommend to rehabilitation counselors and consumers. Provides information they do not have and connects them to programs, people, and placements that will facilitate their educational goals, vocational preparation, and career development.	<ul style="list-style-type: none"><li>• Advocate vocational opportunities to consumer, employers, and significant others</li><li>• Facilitate and model consumers as equal partners and driving forces in the evaluation process and future service implementation</li><li>• Encourage access of consumers to various service systems (including vocational education programs)</li><li>• Provide expert testimony regarding employability and rehabilitation feasibility of the consumer</li><li>• Help consumers and others negotiate various systems and bureaucracies</li><li>• Model how to use vocational evaluation results and recommendations to gain desired goals</li><li>• Provide labor market information and linkages to available training and employment options,</li><li>• Interpreting vocational evaluation results to various people (e.g., family members, potential trainers and educators, and employment specialists)</li><li>• Testify on behalf of consumers in due process hearings and in court</li></ul>

Role	Function
<p>Collaborator and Coordinator: work in concert with consumers and their rehabilitation counselors, assistive technology specialists, employment specialists, other rehabilitation professionals, as well as with family members, professionals outside rehabilitation, and, in some cases, employers, etc. to ensure that referral questions are answered, consumers receive high quality vocational evaluation, and recommendations that can be implemented.</p>	<ul style="list-style-type: none"> <li>• Connect with disciplines providing input to consumer's living, learning and working abilities</li> <li>• Communicate and work with employers</li> <li>• Collaborate with personnel and material resources in assistive technology</li> <li>• Consult with medical, psychological, and educational professionals regarding functional capacities, prognoses, and planning</li> <li>• Cooperate with other rehabilitation providers to ensure timely and coordinated services</li> <li>• Interpret assessment information related to consumers' needs, values, interests, capabilities, etc.</li> <li>• Motivate consumers for future rehabilitation education and training</li> </ul>

Role	Function
Educator (Thomas, 1997): one who assumes responsibility for informing all potential referral sources (including consumers) and the general public about services provided by vocational evaluators (especially when working closely with rehabilitation counselors).	<ul style="list-style-type: none"> <li>• Orient and market services to the general public, referral sources, and various consumer groups</li> <li>• Train referral agents about methods and how to interpret results</li> <li>• Communicate with policy makers and legislators regarding the importance of assessment as the basis for any planning process</li> <li>• Conduct training programs for new and experienced evaluators and for rehabilitation counselors (to create and maintain effective working relationships)</li> <li>• Work with other vocational evaluators, counselors, and others to help inform local or agency policy</li> <li>• Develop position papers and policy briefs regarding “good practices”</li> <li>• Network with other professionals (e.g., the Interdisciplinary Council on Vocational Assessment and Evaluation) to gain consensus regarding practice and policy</li> <li>• Together with counselors demonstrate the value and benefits of vocational evaluation</li> </ul>

### **Back to our Roots—“Back to the Future”**

As Chapter 9: Looking Back illustrates, vocational evaluation has been shaped by a variety of factors: federal legislation (Leconte, 1994; Neubert, 1994; Thomas, 1994), the changing nature of work, technology, global economy, ever-changing demands of work and the workplace (Ayella & Leconte, 1987; Hamilton, 2003; MacIsaac, 2003), the changing fabric of the labor force, and changing needs of consumers (Neubert, 1994). Other factors have both fostered and limited the use of vocational evaluation. For example, the mostly exclusive use by VR services has helped the field refine techniques, such as assistive technology (Langton & Lown, 1995; Langton, et al, 1998) and “inten-

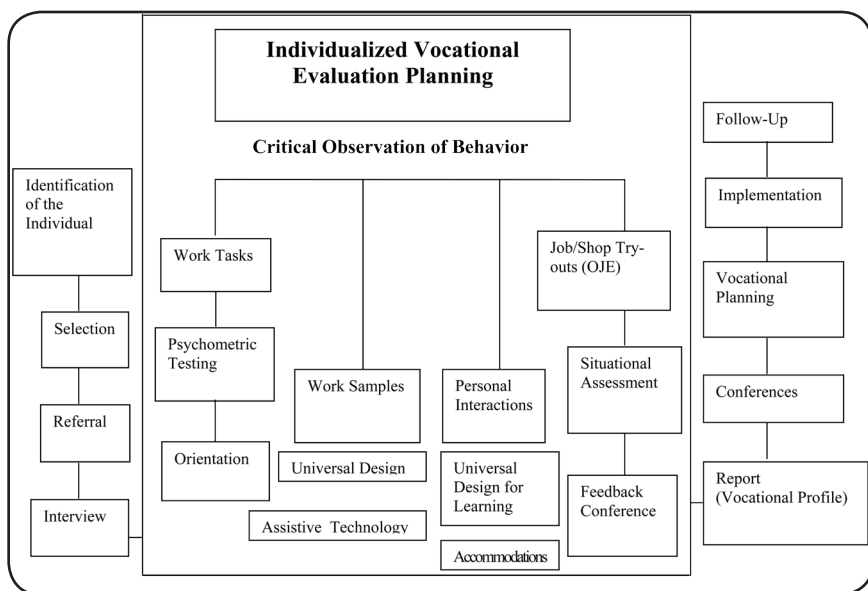
sive vocational evaluation” (Klukas & Annis, 2003) that are effective for those facing the greatest barriers to employment and career development. Yet, this exclusivity has often prevented the larger public from knowing and realizing the benefits of vocational evaluation for all who face vocational challenges (Sawyer, 1987; Thomas, 1994).

Vocational evaluator roles have evolved from the initial community-based practices conducted within community rehabilitation programs (then known as sheltered workshops) and in the community during the 1960s (personal communication, Darrell Coffey, July 1993; Hoffman, 1970; Nadolsky, 1971). The focus of VE has always been on individualizing assessment services as an alternative to traditional, standardized assessments (Nadolsky, 1971; 1983) that are used for people who do not face difficult and complex vocational challenges. During the 1970s and 1980s several circumstances stimulated reliance on standardizing and commercializing assessment techniques and instruments. Not the least of these stimulants were pressures from administrators to serve more people without increasing staff, time or resources (Murphy & Hagner, 1986).

With the increased development, standardization and commercialization of work sampling and vocational evaluation systems, evaluators lost a lot of control over their services, and thus, professional status. Vocational evaluators found themselves working in situations that could likely discriminate against the very people their roles and methods were designed to save from mistreatment and harm. Rather than integrating commercial systems into their practices and using them when appropriate, many evaluators equated the systems with quality vocational evaluation and relied on them solely. Systems were viewed as cost effective ways to assess the most people with the most “productive” and scientific methods—in the shortest amount of time. Rightly, the eventual prevalence of such practices caused many consumers to criticize and call for the elimination of a “service” that served as a gate-keeping mechanism that often painted a negative description of their capabilities (Rogan & Hagner, 1990). Dreams, goals, and preferences were minimized in the reports of consumer performances, and many were deemed “unemployable” (G. Sasnett, July 10, 1988, personal communication). In many cases, untrained personnel were simply directed to administer these systems and abide by the published performance “standards”—the very type of norms that experientially-based vocational evaluation was developed to avoid. Trained and qualified vocational evaluators know that if people

want to work they can, especially considering the availability of technology and accommodations.

In an evolution that has brought us “back to the future,” we have now moved beyond “systems” (though these can be integrated into an array of vocational evaluation options) to more authentic, work and community-based assessment practices. This is partly due to the demand for consumer-centered services based on informed choice driven by the independent living and supported employment movements. Also, as the national cadre of vocational evaluators became more highly trained and identified themselves as part of a legitimate profession, they demanded with a more unified voice that practices be strengths-based, use a continuum of methods and approaches, and return to community and work-based evaluation that holds targeted meaning for consumers. Vocational evaluator roles also evolved as the prevalent practices from VR settings were used, adapted and expanded in other settings, such as in vocational education (i.e., Career Technical Education), special education, welfare-to-work, immigrant (Arthur, et al, submitted for publication), corrections, and other work-force development programs (Leconte & Neubert, 1987; McDaniel, 1987; Neubert, 1994).



Regardless of setting, vocational evaluators are responsible for and use their knowledge, skills and competencies in areas that are identified in the above figure. This depiction refines the process as it was defined in the 14<sup>th</sup> IRI document on vocational evaluation in 1987

and in previous publications (Leconte, 1985). Ideally, VR counselors are involved throughout the process, particularly in activities falling outside the large center box.

### **Actual Day-to-Day Evaluator Responsibilities**

Vocational evaluator roles extend beyond the face-to-face services with consumers. In the following (simplistic) framework, contemporary vocational evaluator roles are divided into three major categories: Direct consumer services, indirect consumer services, and administrative and support services (Leconte, 1999). Interestingly, these mirror roles of past decades with some natural deviations based on the setting in which VE occurs (Leconte & Neubert, 1987; Nadolsky, 1971; Pruitt, 1986). Often people not familiar with the intricacies of VE take the view that evaluators are “enjoying down time” when they are not working face-to-face with consumers. The indirect consumer services and administrative and support service evaluators provide may not be valued as much as direct consumer contact, nor are these duties always considered when structuring fees for services. Taking into account the risks of oversimplifying, the following outlines major duties that are typical across most service settings, particularly in VR.

### **Routine Vocational Evaluator Responsibilities**

Direct Consumer Services	Indirect Consumer Services	Administrative and Support Services
Conduct orientations and interviews	Schedule assessments, communicate, and meet with referral sources	Develop work tasks and work samples; maintain and upgrade these according to workplace and industrial standards
Establish rapport with consumers and rehabilitation counselors	Coordinate/ conduct pre-evaluation interviews and post-evaluation staffing conferences, including those with parents, support personnel, etc.	Create community-based assessment sites by collaborating with employers or vocational trainers and educators

Direct Consumer Services	Indirect Consumer Services	Administrative and Support Services
Conduct pre-evaluation interviews and post-evaluation staffing conferences, including those with parents, support personnel, etc., often with rehabilitation counselors	Investigate specific disabilities and determine vocational implications	Participate in continuing education and professional association activities
Develop and revise individualized vocational evaluation plan with consumers and often with counselors	Research community resources, including site visits	Research and evaluate emerging advancements, such as Web-based assessments
Select appropriate assessments for individual consumers	Perform training and job analyses and develop task analyses, especially to develop universally designed instructions	Establish and maintain relationships for potential referral or placement options (with employers, community service providers, and vocational instructors)
Administer and score assessments, tests, work samples, situational assessments, and other community-based assessments	Conduct labor market surveys and research via Web and printed resources, phone calls, interviews, and site visits	Order materials and upgrade assessment instruments (e.g., arrange for recalibration of an audiometer, oil lathes and drill presses)

Direct Consumer Services	Indirect Consumer Services	Administrative and Support Services
Collaborate on report or profile recommendations with the consumer and rehabilitation counselor	Select, obtain and create assistive technology or modify tests, surveys, work samples, and instructions	Perform follow-up to determine efficacy of recommendations and effectiveness of services
Observe and record behavior	Conduct wrap-up conferences and feedback for the consumer often in conjunction with counselors	Review consumer files and gather background information
Prepare program reports for administrators and funding sources	Conduct occupational and career searches with consumers or suggest this to counselors	Verify information with team members, counselors, employers, teachers, family members, etc.
Meet with administrators and program supervisors annually to share aggregate consumer data and findings	Identify learning style preferences, interests, goals, abilities, aptitudes, temperaments, values, levels of career development and maturity, attitudes and other attributes	Serve as liaisons with referral sources, teachers, counselors, instructional support personnel to ensure consumers are linked with appropriate education, training, and rehabilitation services

Direct Consumer Services	Indirect Consumer Services	Administrative and Support Services
Market and educate potential referral sources, community members, and consumers about the service; guide them in what referral information is needed; explain who can benefit from services and who cannot	Furnish career information and provide immediate related “on the spot” counseling and share with rehabilitation counselors for more in-depth counseling	Research possible recommendations (e.g., appropriate education, training, placement options) for individual consumers
Design and conduct training about vocational evaluation services	Adapt materials and equipment & integrate or seek assistive technology for consumers (counselors often assist in the latter)	Analyze, interpret, triangulate, and synthesize assessment results
Guide referral sources and others about how to implement recommendations (if necessary)	Provide feedback and interpret results for consumers, referral sources, team members, parents, and others	Write narrative reports or vocational profiles in understandable language and functional terms
Keep abreast of emerging and changing laws and policies that have implications for services	Match consumer attributes with their ecological needs and preferences	Explain results and collaboratively develop recommendations during staffing or planning conferences
Serve on intra and interagency committees to help structure or maintain cooperative activities	Research vocational implications of specific disabilities and medications used by consumers	Conduct program evaluation on services and revising program processes, methods, and procedures

Direct Consumer Services	Indirect Consumer Services	Administrative and Support Services
Facilitate consumer self-discovery and encourage self-determination and advocacy (often with counselor support)	Orient and collaborate with interpreters for people who are deaf or whose primary language is not English	Participate in planning meetings (e.g., IPEs, IEPs) for consumers who may need evaluation services
Triangulate assessment findings and share them with consumers	With rehabilitation counselors, set up and plan community-based assessments	Create new processes or integrate evaluation into them (e.g., digital portfolios)
Communicate informally with consumers and provide immediate feedback on assessments		

Evaluators are encouraged to conduct action research and participate in professional associations (e.g., Vocational Evaluation and Career Assessment Professionals, National Rehabilitation Association) and related activities (e.g., making local, state, or national presentations, participating in professional development activities). Many vocational evaluators, especially those who work within agencies or a larger service system, also are asked to perform additional duties, which may have little to do with their vocational evaluation roles. For example, some are asked to serve on local or state committees, and others may assume roles of advocating (by following along) for consumers within their own service system. Within VR, they may personally take a consumer to meet a potential vocational training instructor or may regularly contact a counselor to ensure that the consumer makes recommended connections to other needed services. This is necessary in areas where counselor caseloads surpass the number they can adequately serve—as budgets are lowered and service needs escalate.

Extraneous activities are not new phenomena. During the 1970s and 1980s, evaluators were describing their roles as including assessment coordinator (supervising and supporting others who collect assessment information), consultant, vocational liaison, advocate, and trainer/staff developer (Leconte & Neubert, 1987). Cremo (1990)

noted that evaluators were being asked to evaluate programs, administer screenings to match community mentors with consumers, design and coordinate portfolio assessment, survey employer needs within local economies, and evaluate training curricula.

Evaluators have been called upon to serve as vocational experts and expert witnesses for consumers applying for Social Security benefits, for attorneys seeking damages or economic support for individuals who have been injured (McDaniel, 1987), and for due process cases in school systems. These activities corroborate the three roles identified by Thomas (1997) that vocational evaluators of today must play: vocational/career expert, disability specialist, and educator. These inherently include working as a change agent, advocating for consumers as well as for the profession and service process, and convincing others of the value of VE.

### **Expansion of Roles**

Evaluator roles have always required communication and cooperation with consumers, other professionals, employers, family members and others depending on consumers' unique needs and goals. Communication with VR counselors is critical. In fact, the very definition of VE requires that evaluators gather information and provide it to members of a multidisciplinary team—synthesizing the medical, psychological, educational and other evaluation findings with vocational ones to formulate the best possible plan with the consumer (Dowd, 1993a).

More attention is being paid to the interdisciplinary aspects of their roles (Bowers & McKenna, 1994; Cremo, 1997; Dowd, 1993b; Dowd & French, 1991; Leconte, 1994; Neubert, 1994; Power & McKenna, 1994; Thomas, 1994). Results of Hamilton's (2003) role and function study reinforce the interdisciplinary, collaborative and advocacy-oriented vocational evaluator roles. For instance, she found that primary knowledge areas included the following categories or factors: Foundations of Vocational Evaluation, Standardized Assessment, Occupational Information, Implications of Disability, Communication, and Professional Networking and Coordination. These verify the roles identified in the figure Vocational Evaluator Roles and Functions Emerging from the Evolution of Vocational Evaluation and reinforce the notion that performance of our roles relies on interdisciplinary connections, collaboration, and advocacy. Examples of specific knowledge areas identified by Hamilton that exemplify

these skills are identified below.

***Foundations of Vocational Evaluation:***

- Development and use of situational and community-based assessment
- Modification and accommodations of evaluation techniques
- Use of assistive technology devices and services
- Use of community resources and support programs
- Individualized vocational evaluation planning
- Identifying employer and workplace needs and standards
- Understanding cultural implications of disability.

***Occupational Information:***

- Labor market research and analysis
- Job analysis and task analysis

***Implications of Disability:***

- Ecological variables that impact on vocational functioning

***Communication:***

- Verbal communication of information and results
- Vocational interviewing
- Vocational counseling

***Professional networking and coordination:***

- Basic negotiation and mediation
- Developing partnerships within and across disciplines
- Case management (e.g., service coordination) (Hamilton, 2003).

These factors underscore the unique and discrete skills and competencies that vocational evaluators use in the VR process (Ayella & Leconte, 1987; Thomas, 1994). Hamilton (2003) also identified and divided *Job Tasks* into six categories, all of which attest to the collaborative nature of our work. The *Job Tasks* included clinical skills

to analyze and synthesize assessment data, behavioral observation and evaluation techniques, case management, occupational analysis and information, vocational counseling, and professionalism. This role and function study confirms the skills and competencies that evaluators have needed and that they have long espoused. Dowd (1993b) noted that VE practices are interdisciplinary and should be based upon competencies in negotiation, mediation and collaboration. Collaborative service delivery allows maximum outcomes for consumers (Dowd and French, 1991; McDaniel, 1987; Power and McKenna, 1994). Collaborative practices require more time and investment from all parties and are more intensive (and thus more effective) than simple communicative and cooperative approaches. Collaboration can be defined as “direct interaction between at least two coequal parties voluntarily engaged in shared decision-making as they work toward a common goal” (Friend & Cook, 2003, p. 5). This certainly describes the partnership between consumers and evaluators throughout the evaluation process that requires the trust and value each places in the other. Friend and Cook (2003) delineate “defining characteristics” of collaboration, which meet the criteria for person-centered services and planning that lead to empowerment. They state that collaboration is voluntary, requires parity among participants, is based on mutual goals, depends on shared responsibility for participation and decision-making, requires that participants share resources, demands that participants share accountability for outcomes, and causes a sense of community to evolve.

The last characteristic depicts the unity of resolve that both consumers and evaluators need in order to advocate for change and progress toward consumers’ goals.

### ***Collaboration with Assistive Technology Specialists***

As their roles evolved, evaluators have forged partnerships with other professionals to better accomplish certain aspects of their work. One example would be collaboration with occupational therapists for job analysis and ergonomic assessment (Dowd & French, 1991). In efforts to provide the maximum benefit to consumers with severe disabilities, evaluators have been partnering with rehabilitation or assistive technologists to the point of devising new combined approaches to the evaluation process (Klukas & Annis, 2003). As much as they can, considering the shortage of both vocational evaluators and assistive technology specialists, evaluators call upon the services of AT specialists to ensure that consumers are assessed with as level a

playing field as possible—eliminating any barriers that would compromise demonstration of their real potential and skills.

The infusion of assistive technology into the assessment process often allows the consumer to explore options previously thought impossible. Issues that can be addressed include activities of daily living, mobility, adaptive transportation, computer access, vocational options, worksite accommodations, and environmental controls. Key skills that the vocational evaluator and the AT specialist use mirror those that are required of many skilled workers today: critical thinking, problem solving, creativity, ability to observe traits and activities that may not be measurable, and supporting the informed choices of consumers. Legislation supports the integration of AT within all aspects of the VR process; it is especially critical in evaluation:

A fundamental goal of the field of assessment and vocational evaluation is to assist individuals with disabilities to reach their maximum potential. For many individuals this potential will be severely restricted without the benefit of assistive technology. The use of assistive technology within vocational evaluation...to enhance the performance of individuals is essential in determining their functional capabilities (VECAP, 1997, ¶ 6).

As with many situations, work samples and psychometrics that are used within this process may be modified or adapted for the primary purpose of gaining useful information (rather than comparison with other norm groups). An innovative practice designed at Baltimore's Workforce Technology Center (Winpigler, 2001) allows consumers with severely limited upper extremity movement to use customized, computer-assisted assessment via assistive technology. Consumers have realized significant employment outcomes as a result of participating in this assessment in computer programming.

The latest advancement that will have a profound impact on vocational evaluation is the concept of universal design for learning (UDL). The "core concept of UDL is that anything that is accessible to some needs to be accessible to all" (Smith, 2003, p. 5). Universal design is familiar to most of us as making places accessible for everyone (e.g., curb cuts in sidewalks) and it is defined by The Center for Universal Design at North Carolina State University (1997b) as "the design of products and environments to be usable by all people, to

the greatest extent possible, without the need for adaptation or specialized design.” UDL carries the concept into the instructional and assessment realms with Ohio State University Partnership definition: “an approach to designing course instruction, materials, and content to benefit people of all learning styles” and needs “without adaptation or retrofitting” (as quoted in Smith, 2003). As UDL becomes more popular, there will be less need for expensive assistive technology for people with certain disabilities. The increased availability of electronic or digital media will allow people with blindness, deafness, learning disabilities, and English language learners to manipulate text to meet their specific needs.

### **Evaluators in the Employment Sector**

Partly as a result of the Americans with Disabilities Act and due to the uniqueness and content of vocational evaluator’s KSAs, they have been called upon to serve in various consultation roles in business and industry (Thomas, Bowers, Batten, and Reed, 1993). The following are among the numerous services evaluators have been asked to provide to the employment sector:

- conducting job analyses to identify essential functions of jobs,
- writing job descriptions that comply with the ADA and include accommodations,
- performing risk management functions to help avoid work-related injuries,
- assisting human resource professionals in identifying particular skill sets of employees and how they best match required work roles to increase production,
- setting up assessments in community industries and providing technical assistance to employers and employees (e.g., as in South Carolina and Wisconsin), and
- providing vocational-medical consultation related to work restrictions and accommodations (for example, a physician may give the “okay” for an employee to go to work, not realizing the extent of her job duties, the evaluator can analyze the job in relation to the worker’s medical condition and that information can be used by the physician, the employee, and

the employer).

Vocational evaluators can help bridge the services provided by one stop centers developed under the Workforce Investment Act and the needs of employers by implementing some of the above services in addition to more traditional ones.

As vocational evaluators conduct evaluations that replicate or represent the complexities of today's and tomorrow's workplace, they, too, need to demonstrate more skill and attention to problem-solving, critical thinking, and other competencies that mirror those required of SCANS, the Secretary's Commission on Achieving Necessary Skills (U.S. Dept. of Labor, 1991). This competency framework is described briefly in Chapter 5. The very nature of solving barrier-related problems and devising assistive technology solutions (both low and high tech), requires evaluator skills that can be marketed to business and industry.

Some evaluators (J. Annis, personal communication, February 2004) have identified an increased need for work sampling both within VR and within industry as a means for evaluators and AT specialists to identify particular and unique skill sets. Work sampling can also aid these professionals in developing AT products related to necessary tasks. Information gained can then be used to increase the employment opportunities for people with disabilities and to assist employers who want to prevent injuries (and health costs) and improve productivity. Such consultations inevitably lead to improved relationships between rehabilitation, employers, and employees.

## **Technology Innovations Expand Evaluators' Roles**

In addition to assistive technology's profound impact on VE, other technological advances are emerging. Since the last IRI on VE was written (1987), technology has changed the role and skills of evaluators to the point that most now use computers to perform routine functions of researching services, conducting labor market searches, using computer-based assessments, Web-based resources, writing reports, and integrating findings and recommendations into digital portfolios. They communicate via electronic mail, video-conferencing and provide consumers with digital copies of their findings, reports, and research. Websites are often included in recommendations. Virginia Department of Rehabilitation Services is experimenting with distance video-conferencing in rural areas to eliminate long travel times to the evaluation site at Woodrow Wilson Rehabilitation

Center for transition-age youth. Vocational evaluators conduct a Vocational Medical Screening (assessment) from a distance, conducting interviews and relying on professionals at the consumer site to assist with administration of work samples, paper-pencil and dexterity assessments. It may not take long for aspects of video conferencing or Web-based conferencing to become integrated into comprehensive vocational evaluation. This technology has great promise for community-based evaluations.

## **Conclusion**

Vocational evaluator roles require knowledge, specialized skills, and abilities (KSAs) that facilitate individuals' self-knowledge related to "the world of work," meaning their career development, vocational preparation, and transitions toward ultimate employment goals. By implementing ethically-sound clinical judgments and by collaborating with multidisciplinary teams—including consumers, consumer-selected members and advocates—evaluators play a unique role in the VR process. Acquiring these skills through formal education options is difficult since long-term training opportunities have diminished. At one point, the Rehabilitation Services Administration had sufficient funds to support eighteen vocational evaluation graduate programs. Today, only eight programs are supported by RSA in addition to two university-supported VE tracks. No other sources for graduate training exist.

## Self-Study Questions

1. Which factors typically have a positive and necessary effect on the vocational evaluator roles?
  - a) changing labor market and workforce
  - b) demands made by economic downsizing
  - c) federal legislation and changing consumer needs
  - d) both a and c
  - e) both b and c
2. Two 20<sup>th</sup> Century movements helped move vocational evaluation back into the community and away from sole reliance on commercial systems and paper-pencil testing. These were
  - a) demands from employers.
  - b) local labor market demands.
  - c) demands from administrators.
  - d) reduction in published assessments.
  - e) independent living and supported employment.
3. Roles and functions studies have identified a VR counselor's role as
  - a) the same as a vocational evaluator's
  - b) totally different from a vocational evaluator's
  - c) compatible with the role of consumers
  - d) overlapping but different from a vocational evaluator's
  - e) none of the above
4. Assistive technology in vocational evaluation
  - a) should be considered at the end of the process
  - b) is not necessary
  - c) should be considered only at the beginning of the process
  - d) can be considered but not applied during the process
  - e) can be considered and applied before, during, and following the process.
5. (T/F) Vocational evaluators have sufficient long-term education options for acquiring master's or other graduate degrees.

## **Chapter Four**

# **The Vocational Assessment and Evaluation Process**

The vocational evaluator has the primary responsibility for individualizing the vocational assessment and vocational evaluation process to ensure that the tools and techniques used by members of the team provide the information, resources and experiences needed for the consumer to make informed decisions that will lead to attaining personal vocational goals and a successful rehabilitation outcome. The vocational evaluator is the rehabilitation professional with the most knowledge of these tools and techniques and therefore should play a key role in selecting assessment strategies and developing a customized evaluation plan to meet the unique needs of each person served. Because of the depth and complexity of comprehensive vocational evaluation, input from the vocational evaluator in designing the process is essential.

### **Introduction**

An accurate and thorough assessment of an individual's ability to work takes into account interests and personal preferences, strengths

and capabilities, how specific job tasks can be performed, and where career opportunities exist. This requires specialized expertise, appropriate tools, and access to information resources. Improving the effectiveness of vocational assessment requires that the process be continually reviewed, that appropriate tools and resources be made available, and that goals and objectives of the assessment be directly linked to achieving successful employment outcomes. Involvement of the consumer throughout the process provides essential feedback and direction as the assessment unfolds. Follow-up after the assessment helps to maintain the focus on employment and employment outcomes to keep vocational assessment and evaluation current and relevant.

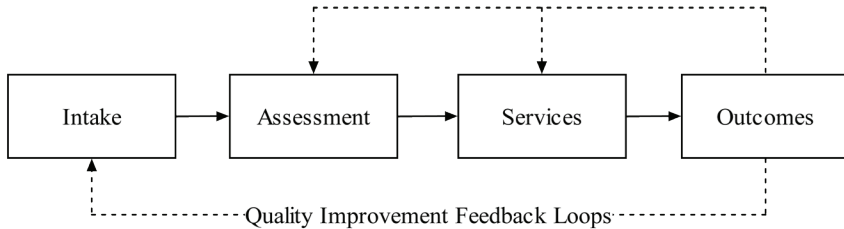
The traditional role of the vocational assessment staff, especially vocational evaluators, to primarily test and evaluate is changing. As a result the vocational assessment process reflects much greater consumer involvement and attention to the ultimate goal of rehabilitation, the successful achievement of meaningful vocational goals. Effective vocational assessments now must go beyond strictly assessing what someone can currently do to focus on better determining what people could be capable of doing. When the resources and tools for creative problem solving are available, vocational evaluators can explore possibilities as information is gathered. When the consumer is an active participant greater career possibilities are explored and strategies to maximize performance increase. As with any effective rehabilitation service, vocational assessment must be individually tailored to address specific needs of the individual. To be truly individualized, accommodations and assistive technology should be an integral part of the assessment process.

Neff (1970) and others have cautioned that there is a complex interaction between the individual and his or her environment. In *Problems of Work Evaluation* (1966) Neff pointed out that vocational assessment “has depended principally on aptitude testing, job analysis, the work sample technique and systematic use of behavioral observation.” These observations were directed at existing vocational assessment at the time; however, in large part these approaches also apply almost 40 years later in 2005. As we look at how vocational assessment is practiced today there are signs that the field is clearly moving beyond a concentration on assessment tools and techniques to the creation of flexible, consumer driven services that go beyond the walls and confines of vocational rehabilitation (VR) centers.

## The Basic Assessment Process

The VEWAA Project Final Report (1975) presented a general service delivery model that identifies four main components: Intake; Assessment; Services; and Acceptable Functional Outcomes. The following illustration shows the relationship of these general components.

This simplified diagram shows assessment as a component provided early in the service delivery process. Maki, et. al, (1979) presented



a similar four-component model for assessment consisting of formulation of assessment goals, selection of content areas, collection of information, and development of an individualized plan. In describing this model they indicate that the individualized plan (vocational recommendations) is the end product of the assessment but they add that the process should not end there. While positioning the assessment early in the VR process is usually appropriate, vocational assessment may be needed at multiple points along the way.

Vocational assessment must increase the involvement of consumers in the process, increasing feedback and implementing systematic quality improvement measures. In general, vocational assessment has lagged in building adequate feedback into the assessment process. As a result many vocational assessment programs still struggle to be able to link employment outcomes back to the contributions and findings of the vocational evaluation process. In the figure above quality improvement feedback loops were added to illustrate how these should function.

## Focusing on What People Can Do

The vocational assessment process is designed to help individuals learn about work and vocational possibilities and gain a better understanding of their own capabilities and potential. The process goes beyond looking at performance on assessment tools and instruments. This narrow focus sets minimum scores or cut-off points that

can limit what we think someone might actually be capable of doing. Such perceptions easily can become realities. The assessment process that is described in the next section builds on traditional assessment tools and techniques in combination with new ways of evaluating that include accommodations and assistive technology (AT). The latter two address concerns with the individual and the environments to identify what someone would be able to do given the right tools and resources. This process enables comprehensive vocational assessment and evaluation services to predict more accurately vocational success and to assist persons with disabilities to make informed career decisions.

## A Closer Look at Vocational Assessment

In current practice vocational assessment and evaluation is a complex process that varies between programs and settings depending on many factors. For this document a general process that includes most, but not all of the components found in vocational assessment, is described. This process is divided into three phases to illustrate recommended practices that should be in place in vocational assessment and evaluation programs.

Phase 1 – Referral and Planning

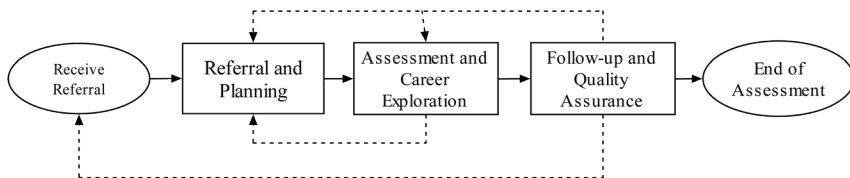
Phase 2 – Assessment and Career Exploration

Phase 3 – Follow-up and Quality Assurance

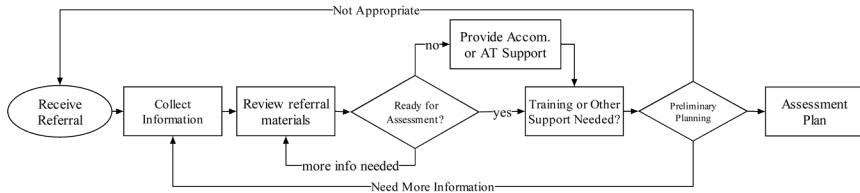
The three phases connect to create a flexible, consumer needs-driven process that adjusts for each individual. Referral questions provide vocational assessment staff with information to begin planning the nature and content of the vocational assessment process.

### *Phase 1: Referral and Planning*

The first phase collects and reviews information on the reason and objectives for the referral to determine what type of assessment is needed and to verify the readiness of the individual to participate.



These pre-assessment activities should be completed before the consumer is scheduled for the assessment. Collected information is



analyzed to individualize the assessment and career exploration activities. Communication between vocational assessment staff and the referral counselor is important here as it is throughout the assessment process. The following descriptions briefly suggest what takes place.

- **Receive Referral:** Receipt of a written referral containing specific referral questions and issues to address formally starts the vocational assessment process.
- **Collect Information:** Necessary intake information is gathered including specific referral questions and previous assessment and medical information.
- **Review Referral Materials:** Review referral questions and supporting information to determine the goals and objectives and overall scope for the assessment. Previous assessment findings and reports should be reviewed to avoid unnecessary additional testing.
- **Ready for Assessment:** Determine readiness to start the assessment noting any functional concerns that could impact the individual's ability to perform to his/her optimal level.
- **Provide Accommodations or AT Support:** Make arrangements for accommodations during the assessment, including provisions for assistive technology devices. If extensive AT needs are identified, these should be in place prior to the actual start of the assessment. For example, if someone needs assistance with communication, they should have sufficient time to become familiar with the communication aid or strategy that may be needed.
- **Training or other Support Needed:** Make arrangements to provide any training needed for developing proficiency to use AT products that may have been recommended. This training should be provided prior to continuation with the vocational assessment.

- Preliminary Planning: Vocational assessment staff should review and analyze all available information and begin planning the assessment process. Involvement of the referral source and consumer is advised to determine the length and nature of assessment activities needed to adequately answer specific referral questions.
- Assessment Plan: Assessment methods should be selected from the continuum of techniques, instruments and activities available.

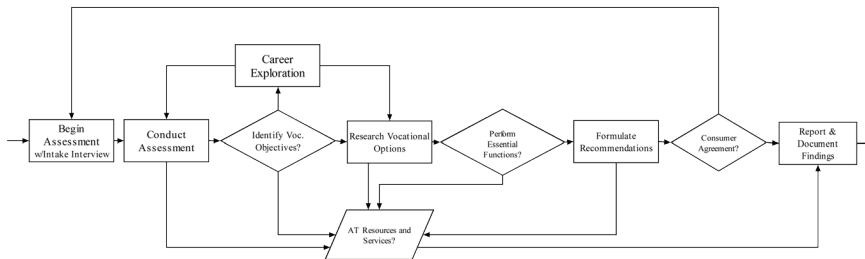
The actual delivery of evaluation services has evolved into a continuum rather than discrete levels. As shown in Fig. 4-3, the assessment starts with a screening of the consumer and ends when sufficient information is gathered to answer referral questions and other issues that may have arisen during the course of the evaluation. Each step along the continuum builds toward the next. Changes occur in four main areas. Time spent with the person ranges from a few minutes to an in-depth one-on-one consultation and observation in different settings. Background information is normally used and it may be analyzed in depth to determine transferable skills or uncover potential areas for exploration. Tools used range from short, easy-to-administer tests to intensive observations and job tryouts in the community. The continuum is fluid because a person in vocational evaluation may need to be screened for a particular task or have a specialist report integrated into the evaluation. Finally, the continuum is placed on a base of assistive technology because of the profound impact AT can have not only on access to the service, but also as a means to open possibilities beyond assessment.

The estimated time required and the specific assessment methods selected should be determined by the evaluator in consultation with the referral counselor and the consumer. Variables that will affect length of assessment include consumer choice, severity of disability, work rate of the consumer, and the number and type of assessment tools and resources available (Maryland State Department of Education Division of Rehabilitation Services, 2002).

### ***Phase 2: Assessment and Career Exploration***

The second phase of the process encompasses the common elements used for assessment and career exploration that should be present in all levels or types of vocational assessments.

Depending on the types of assessment tools and methods used this process will usually take a minimum of three to four hours and could extend for two weeks or more depending on severity of disability and nature of the referral questions. Activities are initially guided by the assessment plan developed in Phase 1, but direct consumer involvement beginning with the intake interview provides essential feedback that determines the actual assessment and career exploration activities that are needed.



- **Intake Interview:** Employment oriented interview to verify known information and begin process of collecting additional information and identifying consumer preferences
- **Conduct Assessment:** Consumers should be able to make informed decisions to maximize their career development potential through systematic use of many of the following techniques, instruments, and activities. These resources will assist the consumer and professional staff in gathering career and vocationally relevant information to facilitate vocational planning, short and long-term decision-making, and career development (Leconte, 2004). Methods may include the following:

job analysis

training analysis

community mapping and environmental scanning

community resources analysis

support network identification/analysis

psychometric testing

observation and recording of behavior

work sampling

vocational interviewing

review of background information and records

employment histories

computerized assessment batteries  
 transferable skills analysis  
 physical capacity assessments  
 Web-based surveys and occupational exploration  
 situational assessment  
 on-the-job evaluations  
 job shadowing  
 job-try-outs (work trials)  
 functional skills assessment  
 portfolios  
 career and/or vocational profiling  
 career and/or vocational reporting

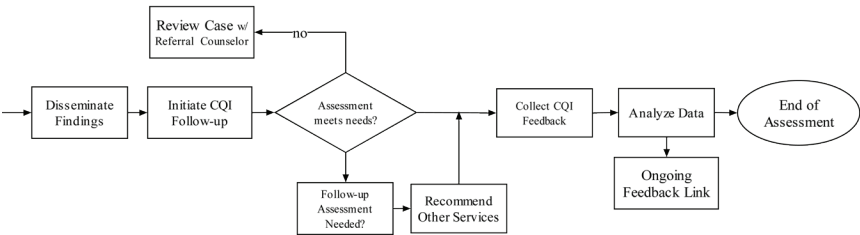
- **Research Vocational Options:** Vocational exploration activities such as provision of occupational information, opportunity for hands-on experiences and collection of job information to assist consumers to make informed vocational choices
- **Career Exploration:** Use variety of methods including occupational information, job shadowing and other work experiences to assist in developing good awareness of vocational options either locally or in other geographic areas.
- **Identify Vocational Objectives:** Process of consumer reviewing vocational options and then identifying specific job/job areas, including training programs/activities for inclusion in recommendations
- **Perform Essential Functions:** Vocational objectives are analyzed to identify essential functions, including environmental considerations that the consumer may have difficulty with.
- **AT Resources/Services:** Assistive technology resources and services should be an option at any point during assessment and career exploration. AT-related services can be provided by the vocational evaluator but will frequently involve the services of a technology specialist. This problem-solving resource can be used to enhance capacity and capability of the individual and address environment factors in the workplace that may limit vocational options.

- **Consumer Agreement:** Active consumer involvement is essential throughout the assessment process. Verification that there is agreement with the recommendations is important so that the consumer accepts responsibilities and understands what is needed to successfully achieve his or her goals.
- **Report and Document Findings:** Results of the assessment should be clearly reported directly to all key stakeholders. This should involve discussing the findings with the consumer and referral counselor followed by completion of a concise, informative report that can be used to convey the vocational recommendations and services and responsibilities needed.

***Phase 3: Follow-up and Quality Assurance***

Dissemination of findings marks the conclusion of the assessment and career exploration phase and the start of the third phase, which focuses on follow-up and continuous quality improvement (CQI). The dissemination, usually through staffing and written report, provides the consumer and referral source with documentation of important findings and recommendations for training, placement or other employment-related outcomes.

Vocational assessment does not end when the report is written. There should be ongoing feedback that keeps vocational assessment staff informed of employment outcomes and the ultimate results of rehabilitation services.



CQI procedures that look at efficiency, effectiveness and satisfaction should be an integral part of the process. Systematic procedures, preferably completed by a third party, should routinely be conducted. These should commence with the consumer as he or she completes his or her assessment and then at appropriate predetermined intervals with all key stakeholders. Systematic follow-up will help to verify the link between the findings of the vocational assessment and the con-

sumer's employment outcomes. CQI efforts help determine if the assessment has met the needs of the individual and answered referral questions. Whenever questions or problems are noted, these should be discussed with the referral counselor. Arrangements may then be made for additional services, including periodic reassessment for the consumer or follow-up consultation between vocational evaluation staff and the referral counselor whenever possible.

The following information investigates key issues such as the emergence of an assessment continuum that better adapts to the needs of consumers, concerns about when assessment services are needed in the rehabilitation process, and who should be making these decisions.

### **Levels of Assessment: The Assessment Continuum**

Two farmers were arguing about how long a man's legs should be in proportion to the rest of his body. The farmers asked Lincoln his opinion. Lincoln replied, "This question has been a source of controversy for untold ages. It has led to bloodshed in the past and there is no reason to doubt that it will in the future. After much thought and consideration, not to say worry and mental effort, it is my opinion, all side issues being swept away, that a man's lower limbs, in order to preserve harmony of proportion, should be at least long enough to reach from his body to the ground." (Hertz, 1941)

An important aspect of the changes taking place with vocational assessment and evaluation revolves around the concept of a continuum of assessment options. The conduct of an evaluation is determined by its purpose. Evaluation at its simplest starts with a need to know in what ways a person with a disability can live and work independently. The process becomes more complex depending on who needs to know and how the results will be generated and used. The "who" includes the person with a disability, the evaluator, the counselor and other invested stakeholders in the recipient's life. Social institutions, e.g., education or rehabilitation, are a part of the "who." Also important are the tools that are used to help determine the individual's readiness for employment—are the tools psychometrically and culturally appropriate? What is the least intrusive and most

efficient method to gather information? Just how much information needs to be obtained? Also of concern are the time and financial resources available to conduct the evaluation. These core issues influence the process of evaluation. What was a simple and lofty purpose can become muddled in an unmanaged or misunderstood process. This section examines the core process and raises the question of *who decides?*

The process of the evaluation is designed to “*assess and predict* the work behavior and vocational potential” (Nadolsky, 1966) of individuals with a disability. To assess and to predict are two different processes that require different amounts of time—assessment is the process of identifying vocational assets and limitations, and prediction uses the results of assessment to analyze vocational potential (Nadolsky, 1966).

One of the critical elements in the discussion of evaluation is how long should it take? Using Lincoln’s story as a metaphor—the length needs to be sufficient to accomplish its purpose. The issue of time appears in the descriptions of levels of assessment. The VEWAA Task Force Number One (1975) and Fry & Botterbush (1988) both describe three levels of assessment. Factors considered in the level of assessment are the purpose, the length of contact (time) with the individual, background data gathered and analyzed, tools used in the evaluation and the skill of the evaluator. The following description of the three levels based upon the VEWAA Task Force (1975) provide a portion of the framework needed for the evolving assessment continuum concept.

The purpose of a Level I evaluation is to screen or make quick decisions about specific traits of an individual. There may be some basic demographic data about the individual available but this is not a significant determinant in the screening process. The tools measure specific traits of the individual and a battery of tests may be administered. The tests may be formal, e.g., commercially available achievement or interest tests, or informal instruments developed to screen for a particular requirement of an employer, such as a short standardized interview. The evaluator needs to know how to administer the tests using a manual or following a specific protocol. There is no requirement to interpret results because most fall into a pass/fail or other predetermined standard of classification.

A Level II evaluation is primarily diagnostic in nature with some aspects of prognosis as based upon an understanding of the individ-

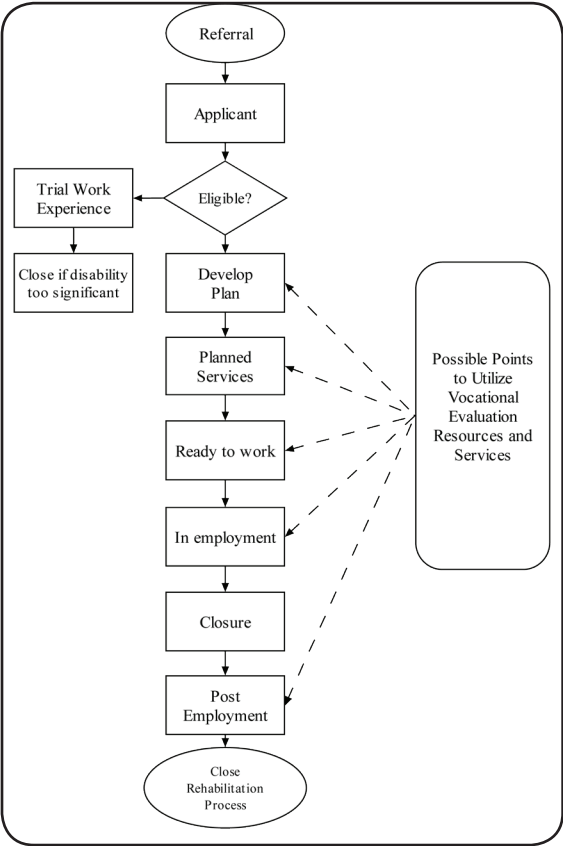
ual's past behaviors and current level of functioning. The time spent is broken into three parts. First is a thorough review and analysis of reports from other professionals, e.g., medical specialist, social worker, psychologist, or educator. Next is approximately four to eight hours of one-to-one contact time with the individual. This is to gather interview and observational data that is then synthesized with the background data to produce recommendations, usually for specific interventions. The level of skill and experience of the evaluator are important at this level of assessment. Often a master's degree in rehabilitation or proof of professional competency, e.g., CVE or CRC plus experience is necessary to perform at this level. The evaluator is the primary tool of the assessment and not only must be able to glean background information from other professional reports but also able to evaluate the information in terms of accuracy. For example, if the individual is from another linguistic or cultural background and the report does not acknowledge this fact, then the report itself is suspect.

The purpose of the Level III evaluation is to diagnose an individual's vocational assets and areas for improvement and to suggest possible job placement and career goals. Using information from Levels I and II, the time for completion usually varies from eight hours to more than a week. The process includes both formal tools, e.g., work samples or tests, and informal techniques, such as job tryouts. Multiple factors must be considered at this level, such as, individual skills and preferences, local job possibilities, community resources, family supports, and assistive technology. The evaluator meets the professional requirements of Level II. In addition, the evaluator must have expertise with the techniques used, an ability to analyze and synthesize data from multiple sources and interpret the information in relevant vocational terms with the individual. For example, a Level III vocational evaluation of a person with a back injury may include physical capacities screenings (Level I), use of medical specialist reports and a transferable skills analysis (Level II), work samples related to an area of individual interest, and a job tryout within the community.

### **Periodic Reassessments: Vocational Assessment Throughout the Rehab Process**

Vocational assessment is a dynamic process that is used with dynamic people. When an evaluation is performed once during an individual's career development or rehabilitation process, then it may

serve as a permanent record—a snapshot captured in time. This record is helpful to initiate or justify services or as a measure of progress if there is historical data in the file. As a standalone document it can serve as the baseline and a place to start. Like most documents, it is dated when the report is written and filed. The report has a short shelf life. For individuals whose goal is immediate placement, a one-time evaluation is probably sufficient. However, for persons who may require extensive training or retraining and other rehabilitation services, a developmental approach is needed. The Figure below illustrates possible points where periodic reassessments could be used to provide a way to plan for and continue to provide timely and efficient



services.

Periodic reassessments provide a record of progress or stagnation with greater understanding as to the reasons for the current situation. This record is not like a test-retest reliability study—it is an evaluation of what is new or different. If periodic reassessment were a flip book, the pictures would clearly show movement or not.

Periodic reassessments also provide a fresh eye to provide an objective review of progress. The evaluator is a partner in the

rehabilitation process and at the same time is not involved in all aspects. This level of involvement combined with a trained eye for an incorporation of new technology, jobs, career(s) and ideas into the rehabilitation process may serve to make the process more efficient or effective for the individual. For example, new technology may assist the individual to be more mobile, learn faster or perform more

effectively, thereby improving the overall services. A new job within the individual's career field may be a better fit or a new method of instruction, e.g., streaming videos on-line may serve the individual's learning style better.

The possibility of more than one assessment raises the question of frequency of reassessments. Again, referring to Lincoln's metaphor, the frequency is determined by need—long enough to reach milestones. Regularly scheduled reassessments provide a routine way of determining progress, and event-related evaluations may serve to explain reasons for stagnation or to pinpoint specific placement recommendations upon completion of a training program.

The worth of periodic reassessments of students, patients and programs are recognized and required in education and medicine. Within vocational rehabilitation, reassessments have not become an accepted practice, perhaps due to the increased emphasis on immediate job placement, lack of perceived value by the consumer or lack of skills to provide the service on the part of the evaluator. Regardless, given the potential for careful reassessments to impact consumer outcomes, the rehabilitation process should include provisions for more than one vocational assessment.

### **Emerging Paradigm: Assistive Technology and Vocational Assessment**

Changes and shifts in paradigms in rehabilitation extend far beyond VE. Disability itself, and how we understand the conditions and limitations that accompany disability, are gradually changing. According to Enders (2002),

disability is actually a complex interaction between an individual and the environment, mediated by tools, skills, and interaction with other people. Technology is often literally the interface between person and environment. The ability to access and use technology is likely to play a pivotal role in functionally redefining disability, and in bridging the wide gulf between what "significant disability" means to the disability community, and what it means today in the business/employer community. (p. 7)

In our increasingly technology-dependent work settings, disability is less and less a function of the individual than of the interaction of

an individual and the environments in which he or she functions. Technology has opened new opportunities for all persons, especially persons with disabilities.

For Americans without disabilities, technology makes things easier. For Americans with disabilities, technology makes things possible. (Mary Pat Radabaugh, quoted in NIDRR, 2001)

If vocational assessment fails to include AT resources and services as an integral part of the process, vocational choice and options are likely to be limited. There is also an increased risk of underestimating the capability and performance of persons served, particularly those individuals with severe disabilities. The Amendments to the Rehabilitation Act (1998) require that assistive technology tools and resources be considered for all individuals who go through rehabilitation services, which include vocational assessment and career planning activities.

### **What is Assistive Technology?**

Assistive technology (AT), part of the broader term “rehabilitation technology” that is defined in the Amendments to the Rehabilitation Act (source), has become the most commonly used name for the use of technology resources and services in the rehabilitation process. Assistive technology has both a legal and functional definition. This document briefly discusses the general concept of AT and suggests ways that these resources can be used in vocational assessment and evaluation. Assistive technology is a resource that can help individuals with functional limitations to reach their maximum potential through the use of products, services or related technology. Options range from “low tech to high tech,” from inexpensive off-the-shelf products to costly, custom-made equipment. The process of applying technology and scientific knowledge to practical purposes highlights what rehabilitation technology is all about; in the rehabilitation setting, it is the use of devices and techniques or strategies to remove or reduce barriers to physical, behavioral, or cognitive performance (Galvin & Phillips, 1990).

## **Assistive Technology and the Vocational Evaluation Process**

Effective utilization of AT in the VR process is a primary responsibility of the VR counselor. The counselor coordinates and manages cases and is primarily responsible to identify the individual's needs, which could include technology-related needs. Similarly, the vocational evaluator is in an excellent position to recognize ways that AT could be used. The length of time that evaluators work with and observe an individual function creates an excellent opportunity to explore possible uses of AT and workplace accommodation options. When technology needs are identified, vocational evaluation staff can work with appropriate AT specialists to obtain the specialized services that may be needed.

When AT is introduced into vocational assessment, particularly more in-depth VE services, the focus shifts from primarily assessing performance to an interactive, problem-solving activity that seeks ways to determine how to maximize someone's capabilities. Traditionally, evaluators have included problem solving as part of the evaluation. This was shown when they fabricated alternate ways that tasks could be completed, identified skills that could be transferred to other jobs, substituted one assessment tool for another, or devised other ways to measure particular factors. When assistive aids and devices are available, it becomes possible to explore even more ways to accomplish a task or to determine what could be done to make a difference in performance.

The use of traditional tools, e.g., tests or work samples, required accurate measurement through the application of a psychometric approach. This technique still has a place in evaluation along with functional, situational and environmental techniques that employ AT as an integral part of the process. A move in this direction represents a radical shift in the approach to evaluation.

Identifying feasible vocational objectives should be done by opening possibilities rather than narrowing choices. Whether someone may be able to perform essential functions of a job may depend on knowing how well AT serves to reduce functional limitations that appeared to make a job goal inappropriate. The VE process is often the best place where vocational exploration, assessment and AT can come together. Although referral counselors are expected to identify any potential technology-related needs, this may not always occur. Time crunched counselors may have limited contact with consumers

and often do not have the opportunity to review technology-related needs or to observe typical work behaviors to the same extent as the vocational evaluator. The vocational evaluator is often better able to recognize the potential benefit of AT and can incorporate this into the vocational assessment or make the appropriate referral for technology services.

**When Should Assistive Technology be Utilized?**

Assistive technology resources and services can be provided prior to vocational assessment, incorporated as an integral part of vocational assessment, or as part of follow-up recommendations. When AT-related services are not provided prior to the vocational assessment, specific vocational goals are often not formulated, which means that a consumer could miss the full benefit of assistive technology. Providing AT services prior to vocational assessment allows sufficient time for training so that the individual can become proficient and comfortable using the technology products.

When AT resources and services are available as a direct part of the vocational assessment, accommodation needs identified during the assessment can be immediately addressed. This can also help consumers to use AT that could help to expand vocational choice possibilities. Drawbacks are that the time needed to adequately address AT needs may be limited in shorter duration vocational assessments.

Preliminary survey findings suggest that VR programs consider use of assistive technology at all three of these points (CRTS, 1994).

Before vocational evaluation	43%
During vocational evaluation	35%
After vocational evaluation	53%

However, results of this survey further indicated “although 72% of vocational evaluation programs indicate that they have access to rehabilitation technology specialists, only 17% actually use these specialists on cases” (Langton, Smith, Lown, Chadham, 1998). When technology needs are identified, AT services will often be dependent on whether external AT specialists are being used. Making arrangements for AT specialists can often be difficult, particularly with the short timeframes found in many vocational assessments. In addition, determining what specific AT specialist may be needed can be difficult to anticipate. An AT intervention that may start as a communication issue can become a seating/position problem that would need services of an occupational or physical therapist, rather than a speech

and language pathologist.

There are advantages of including AT as an integral part of the assessment process. First, this ensures that any technology-related needs or accommodations necessary in the evaluation can be addressed. Second, occupational decisions made during the assessment can open additional options for better taking into account the possible role of AT and need for worksite accommodation. Third, this helps to guarantee that AT needs have been adequately addressed. Finally, need for additional assistive technology services can be better documented in recommendations of the assessment.

Clearly the recommended approach is to have vocational assessment staff who have the knowledge and skills needed to take care of basic AT needs combined with a team of AT specialists who could be called in on relatively short notice for consultation and additional services. This situation exists, however, in only a limited number of comprehensive rehabilitation centers that have both vocational assessment and assistive technology service programs. Most vocational assessment programs will have to gradually develop skills needed in existing staff and continue to make arrangements with other AT service delivery resources for specialized expertise. Many state VR programs have developed extensive AT service delivery programs that have AT specialists that could be involved in vocational assessment activities.

## **Suggestions for Using Assistive Technology**

Assistive technology resources and services should be an option at any time during a vocational assessment. There are general places or points in any assessment where consideration of assistive technology and workplace accommodations should be taken into account. These include *pre-evaluation preparation and orientation, initial interviewing, developing the evaluation plan, administering assessment tasks, doing career exploration and developing recommendations.*

### ***Making pre evaluation preparations:***

- Review referral information to determine if technology needs are indicated.
- Identify functional limitations or problems that may require accommodations during the assessment.
- Ensure that all test and instructional materials that are likely to be used are available in appropriate formats.

- Ensure that the evaluation area is completely accessible for individuals with disabilities.
- Consult with technology specialists for cases where significant AT needs have already been noted.

### ***Conducting the Initial Interview:***

- Determine if the individual uses or has used any assistive devices.
- Determine the need for involving a technology specialist.
- Determine the consumer's attitude toward using AT or workplace accommodations. If any reluctance is noted, this should be explored before considering use of assistive technology.

### ***Developing the evaluation plan:***

- Arrange for any consultation or other involvement of technology specialists if AT needs have been identified.
- If immediate need for assistive technology aids/devices was noted, arrange to obtain necessary equipment.
- If formats of tests and assessment activities are not appropriate for the individual, consider what other assessment instruments or alternate formats may be needed.

### ***Administering assessment tasks and activities:***

- Observe any difficulties the individual experiences in performing assessment tasks/activities. Be prepared to modify the task or activity to obtain the optimal possible performance.
- Permit the individual to use any device necessary to complete the assessment.
- Focus on the consumer's ability to perform essential functions and less on norms.

### ***Conducting career exploration activities;***

- Focus on interests and knowledge rather than on limitations.
- Use job analysis techniques to identify essential functions and explore ways to adapt the job and/or utilize devices to com-

pensate for loss of function.

- Do not eliminate vocational options without providing opportunity to try out and perform work tasks.
- Often vocational options which had been considered not feasible, or perhaps not considered at all, may become feasible through use of AT.

### ***Developing Recommendations:***

- If need for job accommodations seems apparent, identify specific information needed;
- Once a specific job has been identified, consult with an appropriate technology specialist to identify specific worksite accommodations strategies;
- When recommendations are made for AT resources or services, exit interviews should specifically discuss use, maintenance/repair and replacement of AT equipment. Role of the employer and the individual in replacing equipment should be clarified.

Assistive technology resources and services can enable individuals with varied functional limitations to accomplish tasks and perform functions that they otherwise might be unable to do. Use of these resources within the assessment process offers the potential to enhance successful outcomes and increase the value of the assessment phase of the rehabilitation process. AT helps to empower consumers by increasing their life and work choices. For many individuals this potential would be severely restricted without the benefit of AT to enhance their performance (VECAP, 1997). Vocational evaluators, by the nature of their training and professional practice, have a solid foundation to add knowledge and skills in AT.

The scope of what needs to be addressed in vocational assessment and evaluation is continually expanding. Comprehensive vocational evaluations in particular see more severely disabled individuals who present not only vocational needs, but also basic life skills needs that are inextricably linked to achieving successful employment outcomes. Vocational evaluation must be able to address concerns such as independent living skills, e.g., dressing, personal hygiene, or transportation needs.

## **Quality Improvement and Vocational Assessment and Evaluation**

The process of VE needs to include a mechanism to determine quality. Work on the standards and indicators within VR touches on this and quality improvement is addressed quite clearly by CARF standards (2003), the national rehabilitation accreditation commission, when it describes quality improvement for all services in three areas:

- Efficiency, which deals with timeliness, e.g., how long from time of referral to provision of services or from completion of service to submission of the report, completion rates and similar quantifiable measures
- Effectiveness, which deals with the assessment's impact on the individual's rehabilitation, e.g., was an appropriate career selected?
- Stakeholder satisfaction, e.g., did the evaluation meet the individual, payer, family, and other stakeholder's need(s)? (CARF, 2003)

A feedback loop needs to be included to ensure the quality improvement information is obtained and used in the planning processes of the agency sponsoring the evaluation service.

In addition to the discussion of the application of AT, it is important to consider the needs of special populations.

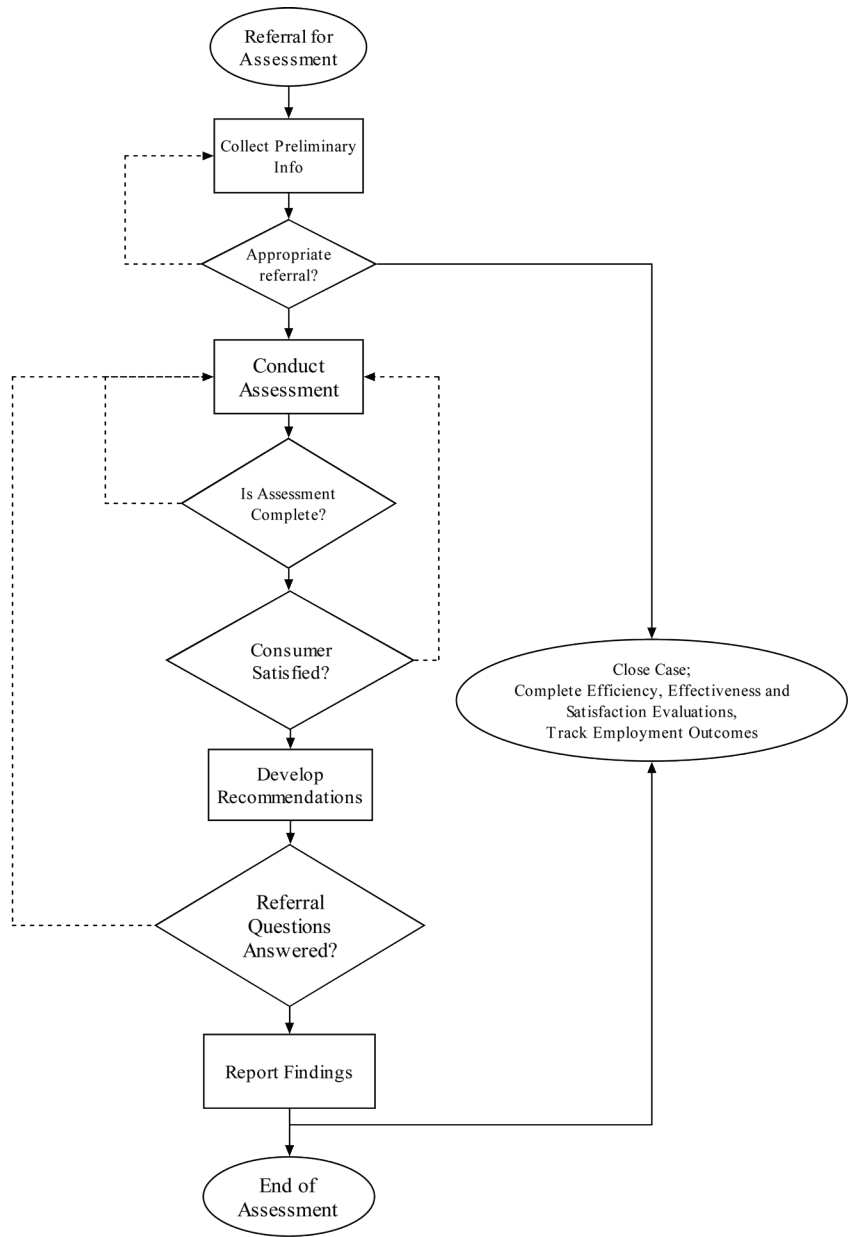
## **Vocational Assessment and Special Populations**

The bigger picture of vocational evaluation is of a process that involves two people, the individual with a disability and the evaluator. Vocational evaluation of a person with communication needs that are different from the mainstream (spoken English) requires specialized skills on the part of the evaluator. If the overall goals and purpose of the evaluation remain the same, does the process of evaluation change as a result of the individual's needs? What factors may influence the process? The first question is addressed in Chapter 6, Language and Communication, and the others are addressed in this section.

The traditional views of VE have focused on the unique characteristics of a specific disability group and provided strategies to compensate for the disability. For example, in deafness the focus is on the implications of the use of an interpreter, and in blindness the focus is

on orientation and mobility strategies (Power, 2000; Bolton, 2004). For persons with chronic mental illness or developmental disabilities the emphasis is on the interaction between the individual and the environment. The identification of supports and interventions is stressed. There is a need to look at the broader concepts associated with services for these populations.

Parts of the process are common to all persons participating in an



evaluation and yet are most susceptible to sources of misinformation if the evaluator is not specifically prepared. The first two are at the data analysis level and the second two are at the interpersonal level.

- Background information and use of other professional reports. The evaluator must know the implications of various social, cultural and linguistic implications when interpreting the reports of other professionals. It is necessary not only to understand the information but also to verify the accuracy and skills of the professional—not in terms of credentials but rather in the way the report acknowledges these components. For example, if the individual is deaf, was an interpreter used and how did that affect the results of the report;
- The evaluator's observation and interpretation of behaviors are susceptible to the social and cultural lens each person looks through, and linguistic barriers presented. The evaluator must know how the lens is applied personally and recognize how the individual applies the lens. The process of stepping outside of one's own lens (suspending judgment) adds credence and fairness to the observation and interpretations of the results;
- Rapport development may be hindered when linguistic, social and cultural variables are present. The evaluator must take precautions to ensure that potential barriers are identified and managed before and during the evaluation; and
- The solicitation of responses, e.g., to test items, or feedback about a job tryout, are easily misunderstood when parties do not share a language and cultural understanding.

### **Influences on the Process**

The process of vocational assessment and evaluation for special populations is influenced by three variables:

- Communication. Evaluators and consumers from different language backgrounds may differ in their interpretations of body language, not just written and spoken communications.
- Cultural values that are ascribed to work influence the performance of the individual and the evaluator's perception.

- Modifications of the environment. The evaluator must know not only available technology and techniques for environmental modifications but also the ramifications of implementing them for the individual.

## Conclusion

The core elements of vocational assessment and evaluation have not changed appreciably since the early days of the field in the 1970s, however the practices and process of evaluation have changed. Practices, especially comprehensive vocational evaluation, have been adversely affected by excessive use of group processing, heavy reliance on standardized assessment tools, and an isolation of vocational assessment staff from direct employer and community involvement. Other factors have contributed to what has become a gradual erosion of the practice of VE:

- Lack of in-service training opportunities for VE staff;
- Trends to shorten and streamline the assessment process;
- Confusion that a customer driven menu approach drives the conduct of an evaluation;
- Funding limitations for pre-service training and research into new assessment methods;
- Emphasis on assessment tools over the qualifications and capabilities of vocational evaluation personnel; and
- Lack of inclusion of AT in the process and subsequent recommendations.

The influences of increased consumer empowerment, culture, assistive technology and individualization serve as the impetus for the examination of the VE process. Other factors include a renewed interest in use of community-based assessments and the infusion of new methods to serve consumers with the most severe disabilities. As a result of these factors, vocational assessment is experiencing revitalization and undergoing changes that will make it a more valuable, integral part of the VR process.

## **Recommendations**

1. Develop clear guidelines/explanations as relates to the continuum of services for evaluation and provide this information to individuals with a disability, rehabilitation counselors and other consumers of the service.
2. Provide training for vocational evaluators on the inclusion of assistive technology in the process of evaluation and on how to make recommendations for the use of AT in postsecondary training, on the job or at home.
3. Provide training for vocational evaluators in ways to identify cultural influences of persons served and personal bias.
4. Incorporate periodic reassessments in the provision of rehabilitation services.
5. Study effectiveness of evaluation as a part of the rehabilitation process and include longitudinal studies, which have a reassessment component, built into the services.

## Self-Study Questions

1. In this chapter the vocational evaluation process is broken down into a number of phases. These phases include:
  - a) Referral and Planning
  - b) Assessment and Career Exploration
  - c) Follow-up and Quality Assurance
  - d) All of the above
  - e) None of the above
2. (T/F) Assistive technology resources and services are options that should be considered at any point in assessment and career exploration.
3. The ideal length of a comprehensive vocational evaluation should be
  - a) Less than one day
  - b) Between one and three days
  - c) Two weeks
  - d) Based on the needs of the individual
4. One of the most significant changes in the practice of vocational assessment and evaluation between 1980 and 2005 is that
  - a) there are greater numbers of vocational evaluators
  - b) responsibilities for vocational evaluators have increased
  - c) almost everyone receiving vocational rehabilitation services now receives a vocational evaluation
  - d) assistive technology is an integral part of almost all vocational evaluations services
5. The delivery of evaluation services has evolved from \_\_\_\_\_ to one that is \_\_\_\_\_.
  - a) A menu driven process/a continuum
  - b) Delivery based on distinct levels/process-oriented
  - c) Randomly assigned/categorically assigned
  - d) None of the above
6. The application of assistive technology during vocational evaluation
  - a) May be used to improve access to the service (e.g., Closed-circuit television to enable a person with low vi-

- sion to read print materials such as tests)
- b) May be a referral question to be addressed in evaluation (e.g., does the consumer use a directional microphone in the work setting?)
  - c) May be to assess potential to perform a job (e.g., with this jig—is the consumer able to meet standards?)
  - d) All of the above



## **Chapter Five**

# **Definitions and Content of Transition Assessment and Vocational Evaluation**

The 28<sup>th</sup> Institute on Rehabilitation Issues on Transition urged that swift action was needed regarding vocational evaluation (VE). Conflicting definitions and requirements for assessment and eligibility need to be resolved by the many systems that touch the lives of transitioning students to prevent duplication of efforts. Information from students and their families, study portfolios, and community-based assessments must be focused on individualized planning for the student to realize post secondary outcomes. Lastly, student information gathering must be an ongoing, cross system process.

### **What is Transition Assessment?**

Definitions for transition assessment are similar despite their school or agency of origin. Clark (1998) defines “transition assessment” as “a planned continuous process of obtaining, organizing, and using information to assist individuals with disabilities of all ages and their families in making all critical transitions in students’ lives both successful and satisfying” (p. 2). The Council for Exceptional Children’s Division of Career Development and Transition (DCDT) defines transition assessment as:

...the ongoing process of collecting data on the individual's needs, preferences and interests as they relate to the demands of current and future working, educational living, and personal and social environments. Assessment data serve as the common thread in the transition process and form the basis for defining goals and services to be included in the Individualized Education Program.” (Sitlington, Neubert, and Leconte, 1997, pp.70-71).

The DCDT clarifies that transition assessment is an “umbrella term that includes career and vocational assessment as well as ecological and functional practices” (p. 70).

### **What is Included in Transition Assessment?**

The broad content according to Clark (1998), in addition to factors that are typically identified in vocational evaluation, includes the following:

- socialization skills
- emotional development and mental health
- independent and interdependent living skills
- leisure skills
- choice-making and self-determination skills
- community participation skills
- cognitive development and performance
- needed family or other supports
- needed linkages with support services
- adaptive behavior skills
- needed skills for the next vertical transition

### **Purposes of Transition Assessment**

Vocational evaluators have been called upon to assist special educators, transition specialists, supported (or customized) employment specialists, and rehabilitation counselors by expanding their VE ser-

vices to include the broader domains included in transition planning, and to work in tandem with other transition team members to provide targeted career or vocational assessment information and recommendations. Unfortunately, many school systems, rehabilitation units, and transition services do not have ready access to highly qualified, or certified, vocational evaluators. Thus, in many areas teachers, counselors, supported employment and/or transition specialists design and conduct their own assessment services. This leads to a lack of consistency and, in some cases, a lack of depth in provision of meaningful and effective assessment services. In an attempt to assist these practitioners, the DCDT supported the publication of a book that could provide much-needed guidance. The book *Assess for Success: Handbook on Transition Assessment* (Sitlington, Neubert, Begun, Lombard, and Leconte, 1996) outlines purposes of such assessment and provides examples of assessment formats for teachers and others to use. Purposes proposed include the following:

- To determine individual's levels of career development when planning transition assessment activities.
- To assist individuals with disabilities to identify their interest, preference, strengths, and abilities in relation to postsecondary goals, including employment opportunities, postsecondary education and training opportunities, independent living situations, community involvement, and personal/social goals.
- To determine appropriate placements within education, vocational, and community settings that facilitate the attainment of these postsecondary goals.
- To determine and facilitate students self-determination skills.
- To determine the accommodations, supports, and services individuals with disabilities will need to attain and maintain their postsecondary goals related to employment, postsecondary education/training programs, independent living, community involvement, and social/personal role/relationships.

When transition assessment fulfills these purposes, students' movement between the educational and adult services (i.e., vocational rehabilitation) can become seamless, assuming the information is shared via students and their families.

Transition Profiles have proven to be an effective method for trans-

ferring information (Neubert & Moon, 2000). The Transition Profile was developed using vocational rehabilitation (VR) counselors' input about what information they needed to determine eligibility for services and to initiate an Individual Plan for Employment (IPE) quickly (Neubert & Moon, 2000). The transition profile that is completed by the Individual Education Plan (IEP) team and coordinated by students' special education teachers can provide documentation of evaluation dates, instruments used and assessment results. In this way, the VR counselor and vocational evaluator know what assessments have already taken place and where they should begin further assessment if needed. A version of the Transition Profile can be found in the appendix at the end of this document.

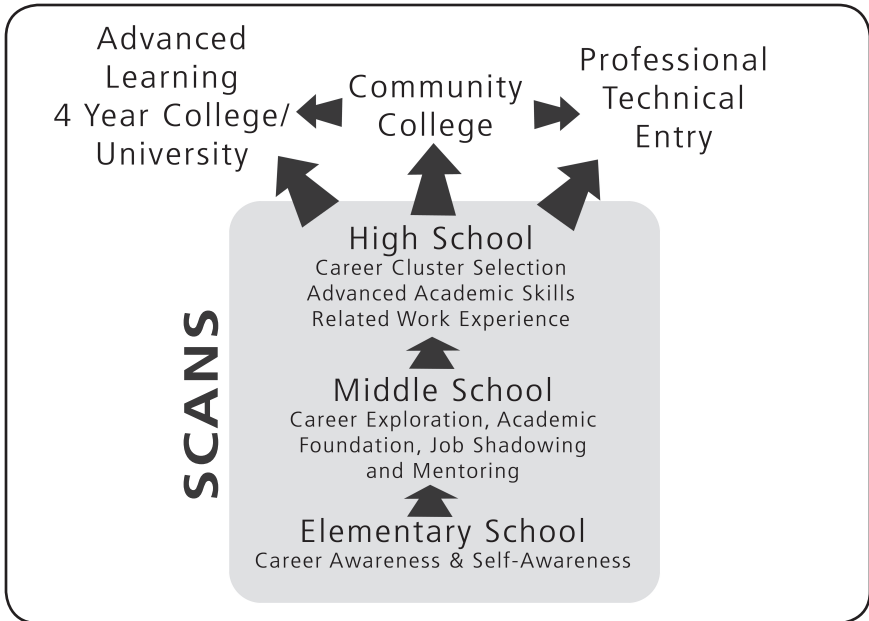
Purposes of transition assessment are tied to the ongoing decisions that are made (i.e., transition points or junctures) throughout secondary and postsecondary experiences, and occur within the contexts of

- Positivism and honesty; focusing on strengths, but acknowledging needs
- Self-determination; learning when to rely on independence and interdependence
- Universal design for learning and working, thus minimizing the need for accommodations (Leconte, 2002)

Although students with disabilities may require assessment of additional support needs and services, they should have access to the same career goals and career development process that all students seek.

Assessing for transition is a continuous process. Decision-making junctures occur along the Career Pathways and Transition Decision Points model as viewed below. The assessment that occurs at each decision or transition juncture represents a critical aspect of "transition assessment."

Through collaboration with educators, vocational evaluators who know the goals and practices used in transition assessment can continue the assessment process in VE without duplication. Vocational evaluators can also contribute to the process for school-aged youth who are still enrolled in school. In fact, in some states, vocational evaluators are helping to design and implement transition assess-



*Adapted from the Maryland State Department of Education*

ments for students. Because the transition assessment process is grounded in the context of self-determination, evaluators and counselors can maintain person-centered self-discovery and planning to facilitate choice and attainment of goals that lead individuals to a meaningful and satisfying quality of life.

## Timing of Transitional Vocational Evaluation

The Individuals with Disabilities Education Improvement Act of 2004 states that transition services should begin at age 16 with the student's first IEP, and be updated annually thereafter. A meta analysis of transition outcome research recommended that assessment and other programming needs start earlier in the student's life (Hughes, Eisenman, Hwang, Kim, Killian, & Scott, 1997). Most of the studies examined were dealing with students about to graduate between the ages of 17 and 23. Delaying VE until senior high school puts the student or recent graduate with a disability in the position of trying to catch up to his or her non-disabled peers, many of whom have held a few part time jobs by this age.

Use of multiple assessments, beginning as early as possible, acknowledges the importance of the student's developing work personality and knowledge of the world of work acquired as they approach graduation. At age 14, students with disabilities may have a very stereotypical or superficial knowledge of work. As their VEs progress,

students learn about themselves, their interests, values, preferences, and something about rudimentary skills they possess. Each employment-related assessment moves them closer to having the ability to make a realistic vocational choice.

When the VE occurs may be a function of who does the assessment. This will vary by state, VR or Blind agency, and school system. For school systems that are unable to do their own assessments, the VR or Blind agency can provide or purchase vocational assessment for transitioning students either during school or during the summer months. This early contact with the VR agency will allow students and their families to gain understanding and confidence in the system that will serve them after graduation. In summary, students with disabilities who are making the transition from school to work should be assessed early and often.

Regardless of who actually provides transition assessment they should be aware of labor laws governing community-based assessment. Assessment for transition is covered by labor laws as authorized by the Fair Labor Standards Act (FLSA). According to a Joint Statement of Principle by the Departments of Education and Labor (Cobb, Halloran, Simon, Norman and Bourexis, 1999), transition and community vocational education can be included in students' IEPs and they can participate in unpaid community work. The FLSA guidelines facilitate community-based assessment that is usually conducted by a community-based instructor from the school system, a supported employment specialist, or someone who represents the school system. The assessment component contained in the guidelines represents one of four allowable activities: vocational exploration, vocational assessment, vocational training and cooperative vocational education. Though the community-based experiences are not to be determined solely on number of hours allowed, the guidelines do set parameters:

- Vocational exploration is limited to 5 hours per job experienced.
- Vocational assessment is limited to 90 hours per job experienced.
- Vocational training is limited to 120 hours per job experienced (Simon, et al., 1994).

Of course, there is latitude in the number of hours within each category. These guidelines are not well known within education set-

tings, but vocational evaluators should be aware of them when assessing students in communities.

## Models of Transitional Vocational Evaluation

Lombard's (1993) MAGIC Model of assessment for transitioning students includes instruction, generalization skill training, and maintenance of skills based on ongoing assessments. It was developed as a means of operationalizing assessment authorized by the Carl D. Perkins Vocational and Technical Education Act of 1990. An outline of the model may be found in the table below.

### Lombard's MAGIC Model (1993)

<b>M – Make a Prediction for the Student's Future</b>		
Gather Informal Student Data <ul style="list-style-type: none"> <li>• Needs</li> <li>• Preferences</li> <li>• Interests</li> </ul>	Gather Formal Student Data <ul style="list-style-type: none"> <li>• Occupational Interest</li> <li>• Vocational Aptitude</li> <li>• Academic Skills</li> <li>• Learning Style</li> </ul>	Map Vocational Congruence
<b>A – Assess Entry Level Skills</b>		
Implement Curriculum Based Vocational Assessment	Conduct Vocational Program Inventory <ul style="list-style-type: none"> <li>• Entry Level Skills</li> <li>• Applied Academics</li> <li>• Vocational Competencies</li> </ul>	Determine Outcomes
<b>G – Guide Skill Acquisition to Skill Mastery</b>		
Coordinate Discrepancy	Identify Goals and Objectives	Instructional Support <ul style="list-style-type: none"> <li>• Direct</li> <li>• Indirect</li> </ul>
<b>I – Instruct for Generalization</b>		
Skill Rehearsal	Orientation to Applied Settings	Activate Skills in Multiple Settings
<b>C – Conduct Maintenance Checks</b>		

Ongoing Assessment	<ul style="list-style-type: none"><li>• Monitor Student Performance</li><li>• Curricular Modifications</li><li>• Instructional Evaluations</li></ul>	Student Program
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Teachers and counselors can collaborate to implement this model of assessment for transition, and vocational evaluators can consult or participate also. The model can be implemented within any type of curriculum, including career technology education programs—with which rehabilitation evaluators and counselors should become familiar.

The 1991 Secretary’s Commission on Achieving Necessary Skills (SCANS) document was an effort to enumerate the skills that graduating students would need to enter and succeed in the workforce (U.S. Department of Labor, 1991). As stated above, transfer of the student’s SCANS competencies to the VR counselor or vocational evaluator would greatly reduce the need for extensive evaluation after graduation.

The SCANS competencies include three foundation skills or qualities:

1. Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks
2. Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons
3. Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

and five workplace competencies:

1. Resources: Identifies, organizes, plans, and allocates resources
2. Interpersonal: Works with others
3. Information: Acquires and uses information
4. Systems: Understands complex inter-relationships
5. Technology: Works with a variety of technologies. (U.S. Dept. of Labor, 1991)

Some schools have integrated this framework into their high school curricula and transition planning. Assessment of the SCANS competencies should be part of the scaffolding of all assessment for transition, regardless of where it occurs or who is conducting the assessment.

### **Selecting Assessment Methods for Transitional Vocational Evaluation**

The selection of assessment methods making up the transitional VE must be based on the needs of the individual student. Assessment methods should include an array of options: instruments with established validity and reliability; structured interviews; observational assessment techniques, especially for ecological assessment; standard academic measures; and others as needed. Use of unstandardized assessment tools or processes designed for individual students and their families are acceptable as well. The key concern should focus on utility of the assessment and if the information needed can be gleaned for transition planning and translated to personal goals and objectives. Sitlington, Neubert, and Leconte (1997) suggest the guidelines for selecting methods to use in the transition assessment process. These guidelines are equally valid for other persons in transition, such as persons recovering from an injury, non-disabled students moving into a 2 or 4 year college, job changers, persons moving from welfare to work, and persons moving from unemployment to employment. The guidelines are listed below and will be examined in detail for the remainder of this chapter.

1. Assessment methods must be tailored to the types of information needed and the decisions to be made regarding transition planning and various postsecondary outcomes.
2. Specific methods selected must be appropriate for the learning characteristics of the individual, including cultural and linguistic differences.
3. Assessment methods must incorporate assistive technology or accommodations that will allow an individual to demonstrate his or her abilities and potential.
4. Assessment methods must occur in environments that resemble actual vocational training, employment, independent living, or community environments.

5. Assessment methods must produce outcomes that contribute to ongoing development, planning, and implementation of “next steps” in the individual’s transition process.
6. Assessment methods must be varied and include a sequence of activities that sample an individual’s behavior and skills over time.
7. Assessment data must be verified by more than one method and by more than one person.
8. Assessment data must be synthesized and interpreted to individuals with disabilities, their families, and transition team members.
9. Assessment data and the result of the assessment process must be documented in a format that can be used to facilitate transition planning.

*Assessment methods must be tailored to the types of information needed and the decisions to be made regarding transition planning and various postsecondary outcomes.* Students with disabilities may unfortunately not have had the babysitting, grass cutting, and unskilled part-time jobs that their non-disabled peers have had. Because they have not been able to use the non-disabled trial and error approach to finding the best job for themselves, the transitional assessments must fill the void. This will include interviews and questionnaires, observations, ecological and environmental inventories, situational assessment, curriculum-based vocational assessment, interest inventories, vocational profiles, and portfolio assessment (Rogan, Grossi, & Gajewski, 2001).

Along with consideration of the students with a disability themselves, the community in which they work must be assessed so the assessments and trial work experiences will relate to available jobs. The local job market, including information technology, manufacturing, services sector, skilled trades, and other positions involving technology, must be understood so the students are evaluated for their fit with skills in demand in their community. Identifying local labor market information can be accomplished through resources such as a Harris Directory, local Workforce Development Offices, state occupational information systems and the Occupational Outlook Handbook.

*Specific methods selected must be appropriate for the learning characteristics of the individual, including cultural and linguistic differences.* Sitlington (2000) described the occupational choice process as a developmental process. Students pass through periods of fantasy, tentative choice,

and realistic choice over a period of years. Vocational evaluators must take into account students' current developmental stage, providing information that can affirm or challenge their understanding of the world of work.

The United States continues to grow in diversity, with immigrant families from cultural, racial, and ethnic groups heretofore unknown to educators, evaluators and counselors. The school system will usually be the first service provider in the community with substantial experience with these diverse groups. The accumulated experience of educators with diverse groups can be part of the information passed on to vocational evaluators. Selection, interpretation, and reporting results from assessments normed on middle class majority groups will require sensitivity to gender, language, and cultural diversity (Clark, 1998).

*Assessment methods must incorporate assistive technology or accommodations that will allow an individual to demonstrate his or her abilities and potential.* Assistive technology (AT) is essential for some students to work successfully upon graduation. Mull and Sitlington's (2003) review of the literature on AT recommended that selection of AT be based on the needs and demands of the student in the secondary and postsecondary environment. Schools will have had time to assess and observe the student's use of AT so that specific recommendations can be made regarding the technologies that the student needs in evaluation.

Langton (1993) suggests that part of the role of the vocational evaluator is to determine the need for AT, positing that AT is not often being used as a part of the vocational evaluation despite its availability. Today, progress is being made, but many evaluators continue to lack skills in this critical area. Thomas (1999) suggested that VE for transitioning students be done increasingly in multidisciplinary groups including a specialist in AT along with vocational evaluator, counselors and others. Evaluations which include AT or that are done in conjunction with AT specialists will increase the likelihood of assessing the student's aptitude, rather than environmental barrier. Most evaluators and others conducting assessment for transition should try to create assessments that follow the principles of Universal Design for Learning (See Chapter 2).

*Assessment methods must occur in environments that resemble actual vocational training, employment, independent living, or community environments.* Targett, Ferguson, and McLaughlin (1998) gave the following

as the purpose of situational assessments:

Situational assessments allow consumers to explore interests in job duties and environments and permit the examiner to observe the consumer in a variety of settings to determine his or her strengths, response to training strategies, and support needs. (p. 107)

Wehman and Revell (1997) suggested that both educational and vocational programming be aligned so that school programming includes community-based training. The two should be thought of as complementary rather than at cross-purposes. Student-assessed interest combined with a real world experience may result in the student exhibiting more on the job social skills and becoming more attentive and diligent in related academic work (Lapan & Kosciulek, 2003).

A metaanalysis of 181 studies of school to adult life transition outcomes found that co-worker conversation, accepting criticism, asking for assistance, being punctual, attending to and completing tasks on time were necessary social skills to get and keep a job (Hughes, Eisenman, Hwang & Kim, 1997). “Soft” skills taught in the classroom must generalize to other settings, however. One limitation of classroom assessment of work behaviors such as social skills is that the work setting may not provide the same stimulus and reinforcement as the classroom.

Real work assessments provide the environmental variables that are impossible to duplicate in the classroom or with a paper and pencil test (Parker, Szymanski, and Hanley-Maxwell, 1989). Such ecological assessments provide information on how the consumer deals with co-workers, supervisors and real-time work demands and can increase the likelihood of finding a job match (Bond & Dietzen, 1993). A community-based assessment of social interactions can also be accomplished using a non-disabled peer volunteer to interact with the student for some activity with ongoing monitoring by school personnel (Staub, Peck, Galluci, & Schwartz, 2000).

One option for students, who must focus on academics during the school year, is to arrange for summer work experiences that can be used as part of their ongoing VE. This aids the students in their continuing adjustment to work and in acquiring skills needed in the workplace (Mitchell, 2001). An added benefit for educators, as said before, may be students understanding the relationship between academics and the demands of the workplace. In many areas, VR coun-

selors are beginning to work with students and their transition teams early so that students can participate in VE and a variety of career or vocational experiences during the summer months.

*Assessment methods must produce outcomes that contribute to ongoing development, planning, and implementation of “next steps” in the individual’s transition process.* Assessment is necessary in all areas and stages including career development, vocational decision making, and transition planning, as individuals make the transition from school to their life as adults (Sitlington et al, 1996). Information gained in school-based assessments before graduation can narrow the field of job choices for the student, and the professionals serving them (Flexer, Simmons, Luft, & Baer, 2001).

Both the individual and the environment should be assessed. This should include an analysis of the living environment, job, program, and resources in the target environment. The next step is to compare the individual with the environmental data to determine if there is a match. If there is a match, the transition process continues with a vocational service provider (Sitlington et al, 1996).

*Assessment methods must be varied and include a sequence of activities that sample an individual’s behavior and skills over time.* A developmental approach would involve making assessments that occur at intervals throughout the student-to-worker timeline. Hershenson’s theory of work adjustment involves individuals interacting with their environment, including family, school and workplace (Hershenson, 1996a). The work personality begins to develop during preschool years, and is heavily influenced by the family. Work competencies develop during the school years in response to success or failure in the school setting. Crystallized work goals develop prior to leaving school, but may continue to develop after graduation. Following graduation, adult services providers may need to assess the graduate’s development of a work personality, and of a longer-range career development plan (Lapan & Kosciulek, 2003).

Hershenson (1996b) posits that his theory of work adjustment applies to students with disabilities, but with the stages taking longer due to the energy that the person must apply in dealing with the disability. As a result, assessments of the graduate must continue following graduation by the adult service provider, typically by the vocational evaluator working for the VR system. In addition to acclimating to work and the work environment, students continue to develop cognitively and to acquire skills that can be generalized in

various work situations.

*Assessment data must be verified by more than one method and by more than one person.* Triangulation of consumer data involves obtaining more than one measurement of a consumer trait, as a check on its validity. Student-expressed interest in a particular occupation should concur with their demonstrated and tested interest. This means that the student who says he or she is interested in a career working with computers, has at least an email address, has demonstrated basic computer literacy skills (e.g., word processing, finding information via the Internet) has the ability for abstract reasoning, and gets high scores on the Holland's (1987) Realistic and Investigative interests.

Readiness for the transition from school to work may occur via multiple pathways, therefore the student must be assessed across settings, situations, and relationships (Phillips, Blustein, Jobin-Davis, & White 2002). Work ratings by professionals from different backgrounds can lend credibility to a student's assessment portfolio. Ratings and observations from employers, job trainers, teachers, or co-workers can enrich a valid assessment of work behaviors and performances. Assessment of work behavior by more than one person also prevents bias from entering into what should be an objective measure.

*Assessment data must be synthesized and interpreted to individuals with disabilities, their families, and transition team members.* Writing for students with disabilities and their families, a rule of thumb for readability is usually the 6th grade reading level. Most word processing programs have a spelling/grammar tool that provides the reading level of the document. For example, this paragraph has a 10.7 grade reading level. Keeping sentences short, limiting complex sentences with a lot of commas, and avoiding jargon generally lowers the reading level.

The Rehabilitation Act Amendments of 1992 include a requirement that the state VR agencies use current information available from other programs and providers, thus reducing costly and time-consuming duplicative services. The use of existing data allows rehabilitation professionals to use up-to-date assessments (from annual and triennial evaluations) on which IEPs (including transition) are based to help students gain access to the VR program and to develop the Individualized Plan for Employment (IPE).

Student educational evaluations must be updated regularly to guarantee appropriate special education and related services. Rehabilitation counselors may use these updated assessment results to forego lengthy waiting periods or duplicative evaluation services. They pro-

vide rich information on which to build any additional assessments that might be needed, such as AT appraisal or VE.

Use of Transition Profiles can facilitate non-duplicative transfer of useful assessment information and can inform VR personnel about critical information that school personnel have collected. A sample of the Transition Profile may be found in Appendix B.

*Assessment data and the result of the assessment process must be documented in a format that can be used to facilitate transition planning.* The results of assessments and a VE should provide direction for educators and rehabilitation counselors. The 14<sup>th</sup> Institute on Rehabilitation Issues publication, *The Use of Vocational Evaluation in VR* (1987), states that quality VE work impacts clients and the system in terms of improving eligibility decision-making, service planning and delivery, selection of jobs and training and how clients are empowered to act in their own behalf.

Thomas' (1986) work on writing reports for VE states that knowing your reader, his or her expectations, and how he or she plans to use reported assessment data are necessary for effective communication. Educators and VR counselors will use the report of assessments and a full VE for the development of IEPs and IPEs respectively. Assuming continuity in the student's transition plan, the IPE is an extension of a well-written IEP.

## Conclusion

Clark (1998) states that assessment is a means to an end. Beginning with the end in mind, which is a career and/or work in the community of choice for the student with a disability, can keep the assessment from becoming overwhelming or taking on a life of its own. Clark gives several recommendations for assessment that should be kept in mind when planning the person-centered transitional VE process:

- Select assessment instruments and procedures first on the basis of how they address these key questions in a student's individual transitions planning: Who am I? What do I want in life, now and in the future?
- Make transition assessments ongoing from an earlier age.
- Use multiple types and levels of assessments.
- Make three-year psycho-educational reevaluations count for

all students.

- Think of assessment procedures in terms of efficiency as well as effectiveness.
- Develop a transition assessment approach that is not only fair, but also enhanced in terms of gender, culture, and language.
- Organize assessment data for easy access in IEP and IPE planning and instructional programming.
- Designate someone in the school to take primary responsibility for arranging and coordinating various kinds of assessments and evaluations for transition planning.

Collaboration between the student, family, school, and adult service providers of VE and VR is key to an effective transition profile. If the schools employ vocational evaluators, they can take the lead and consult with the IEP chair to formulate what is important to pass along to the VR counselor, or to update and ensure that valid, relevant, and current information is included. The vocational evaluator, however, may have more freedom to meet with VR counselors to help interpret and answer any questions about the profile.

If schools do not employ vocational evaluators, it would be important for evaluators employed by or in contract with VR to participate in the IEP team and, when possible, inform the IPE team. This will insure that the transition profile is transferred to the VR counselor by a vocational evaluator familiar with the graduating student with a disability and the assessments that went into the transition profile.

## Self-Study Questions

1. Which of the following skills are examined in a transitional assessment?
  - a) Socialization skills
  - b) Independent and interdependent living skills
  - c) Choice-making and self-determination skills
  - d) Cognitive development and performance
  - e) All of the above
2. (T/F) As a result of recent federal legislation, all schools with transitioning students have ready access to highly qualified, or certified, vocational evaluators.
3. The Individuals with Disabilities Education Act and its Reauthorization state that transitional assessment may begin at what age or stage of the student's life?
  - a) When the VR counselor opens a case on the student
  - b) Between the ages of 17 and 23
  - c) As early as age 14
  - d) At birth
  - e) None of the Above
4. The following skills—Organizes, plans, and allocates resources; Works with others; Acquires and uses information; Understands complex inter-relationships; Works with a variety of technologies—are referenced in which of the following documents?
  - a) Sitlington, Neubert, and Leconte's (1997) Suggested Guidelines for Transitional Assessment
  - b) The Perkins Act
  - c) The SCANS Workplace Competencies
  - d) Lombard's MAGIC Model
  - e) None of the Above
5. Which of the following may have more freedom to meet with VR counselors to help interpret and answer any questions about the transition profile?
  - a) Special education teacher
  - b) Vocational evaluator
  - c) Student's supervisor at their work study placement

- d) Job coach
- e) All of the above





## Chapter Six

# Language and Communication

Language and communication are vital to the process of vocational evaluation (VE) and assessment. Understanding the implications of communication on the evaluation and understanding language issues determine the effectiveness of the evaluation. While planning an evaluation, appropriate strategies that consider mode of communication can also increase effectiveness. These considerations are important for all consumers and particularly for those who are blind, deaf, hard-of hearing, deafblind, do not speak English, or use English as a second language. This chapter examines critical issues related to language and communication as well as a discussion about the use of interpreters. While the chapter does include some tips, it cannot address all possible ways to meet the consumer's communication needs. The influence of culture on language and communication, for example, is discussed in Chapter 2. The following two stories illustrate the importance of language and communication.

Jane, an elementary school student who was hard of hearing, was placed in special education. Her placement was based on her poor performance on achievement and IQ tests administered at the local school. Jane's placement in special education resulted in her removal from mainstream math, English, spelling, and science classes. Instead, she was placed in a self-contained classroom, separated from other

students and given speech therapy. Later, Jane transferred to a mainstream private school where she was not in special education. At that point, she found herself dramatically behind other students. Were the test results an accurate assessment of Jane? Or were the standardized tests a reflection of some other factor? If you ask Jane, who now holds a doctorate in special education, she will tell you her poor performance in assessment was a factor of communication. The manner in which the tests were administered did not accommodate her communication needs and resulted in lower scores that did not reflect her actual abilities.

In a speech delivered at Gallaudet University, the only liberal arts college for persons who are deaf, Dr. Michael Jones, Director of the Evaluation Center at the Illinois School for the Deaf, reported a similar story (Johnson, 2003). He volunteered to participate in the Illinois Goal Assessment Program which was used with special education students. His experience reflected that students who were deaf and took standardized tests measuring reading and writing abilities might have scores that actually misrepresented their abilities. His example was a fifteen year-old student whose performance IQ was 133 and whose tested math abilities were above grade average. The student was fluent in American Sign Language (ASL) and could exhibit a broad range of knowledge. However, his standardized reading test scores were 6 grade levels below his current grade. The test design did not take into account differences in communication. For this student, English was his second language.

## **Communication**

Vocational evaluation is based on the relationship between the evaluator and the person receiving services. At the core of this relationship is communication with its process of encoding, transmitting, decoding and responding (Lussier, 2002). A vocational evaluator is trained in human interaction—how to interview, give instructions and solicit responses. Vocational evaluators learn specific skills and develop an understanding of the communication process. Over time these skills are enhanced with practice and experience. For special populations, the evaluator must apply these same skills using different forms of the message or media in order to communicate. A communication breakdown occurs when the mode used by the individual is different from the mode used by the evaluator. The primary communication tool, a shared spoken language, is removed. This creates a

disadvantage for the evaluator in an area of demonstrated competency (spoken communication) with the resultant potential inaccurate data collection. It is also important to recognize that the communication breakdown is further exacerbated when the instrument used in evaluation most likely was developed, normed and administered in a language different from the consumer's. In some circumstances it is necessary to use an interpreter to facilitate the communication process and this is discussed in the following section.

## **Interpreting**

Within the evaluation process, interpreters serve as both a communication and cultural bridge between the consumer and the evaluator. The interpreter must be familiar with not only the language but also the subtle nuances of meaning that are affected by culture. Interpreting is a skill that is developed over time through formal education or training. It is inaccurate to assume that because a person is proficient in a native language that this proficiency equates to skill as an interpreter.

Interpreters may be categorized as uncertified or unlicensed, nationally certified by a professional organization, or licensed by the state (there is no national licensure). In situations where language is a barrier it is tempting to call upon a bilingual member of the consumer's family or a well meaning friend. These uncertified interpreters might not understand and translate appropriately the terms common to VE. A study conducted in a physical rehabilitation setting found that when family members served as interpreters, they did not appear to interpret medical information accurately (Wardin, 1996). At times there may be no alternative to using uncertified interpreters. In this situation it is imperative that the evaluator recognize the inherent risks to the communication process and proceed with extreme caution. It then becomes the evaluator's responsibility to make sure that all of the information is conveyed in an accurate manner. If at all possible, the evaluation should be rescheduled.

The professional interpreter has completed a certification process and meets certain minimum standards. As with any skilled profession there are different levels of mastery. Interpreter certification may be compared to nursing with its different levels of skills and certification from a Certified Nurse's Assistant to a Licensed Practical Nurse to a Registered Nurse. Each credential represents a higher level of education and skills. An untrained and uneducated person may provide a

level of nursing care but the patient cannot be sure of the skill level and competence of the nurse. This is true for interpreting. A family member or friend may interpret but does he or she have the education and professional ethics to guide their interpreting? When all of the emotional and situational variables in a VE are considered, it is an ethical imperative to use a professional interpreter. Refer to the Table on the Comparison of Uncertified and Certified Interpreters from Sligar (2003).

**Comparison of Uncertified and Certified Interpreters**

Type of Interpreter	Pros	Cons
Uncertified	<ul style="list-style-type: none"><li>• Fast and spontaneous</li><li>• No cost, easy to find</li></ul>	<ul style="list-style-type: none"><li>• Unreliable information</li><li>• Awkward communication</li><li>• Unethical and breaks policy</li></ul>
Certified	<ul style="list-style-type: none"><li>• Reliable unbiased information</li><li>• Free-flowing communication</li><li>• Ethical</li></ul>	<ul style="list-style-type: none"><li>• Requires Planning</li><li>• May be difficult to locate and schedule</li><li>• Costs must be budgeted</li></ul>

**Certification and Screening**

The evaluator, who seeks an interpreter is in a position of caveat emptor because “there is no official licensing in the USA for translators and interpreters” (The Translators and Interpreters Guild, 2000). Interpreters for persons who speak another language may present evidence of competency and professionalism through certification from the Translators and Interpreters Guild (TTIG), credentialing by the National Association of Judiciary Interpreters and Translators (NJITC), a certificate from a college or university, proffer evidence of good work from a referral agency, or personal portfolio. The TTIG offers a broad range of interpreters while the NJITC has a narrower focus on legal interpreting. Completion of a certification program ranges from attendance at a continuing education seminar to college

degrees at the associate, bachelor or master level. Another source for information is the University of Arizona's National Center for Interpretation (NCI).

Interpreters for persons who are deaf may present certification from either the National Association for the Deaf (NAD) or the national Registry of Interpreters for the Deaf (RID). (Note: these two organizations have formed the National Council on Interpreting and in 2005 plan to offer one generalist test). RID also offers certification for persons who are deaf to serve as a relay (or intermediary) interpreter for a consumer who is deaf and has minimal formal (sign) language skills. The relay interpreter works with the hearing/signing interpreter to translate non-standard signs and gestures into ASL, which are then translated into English (Dew, 1999). Sign language interpreters may also pass a quality assurance (QA) screening that is administered by a state agency, usually the state commission for the deaf or the VR agency. The level of skill and QA measures vary from state to state and are not standardized.

Interpreters for persons who are deafblind often have certification from the NAD or RID in sign language. The RID has a Standard Practice Paper (Professional Standards Committee, 2002), *Interpreting for Individuals Who Are Deafblind*, that contains general information for evaluators who may need to use an interpreter.

One of the emerging trends in interpreting is to offer the service at a distance via technology. Several companies provide spoken language interpretation over the telephone. For consumers who are deaf, video remote interpreting and captioning are available at various locations around the country. This service uses a small web camera and the Internet to connect a consumer in one city with an interpreter or captionist in another location in real time.

In general interpreters need to demonstrate competency in overall language skills, the common body of knowledge related to interpreting, adhere to a code of ethics and conduct business as a professional. The qualifications of the interpreter need to be discussed before the evaluation begins. This discussion needs to include the interpreter's experience with rehabilitation in general and evaluation specifically. The evaluator needs to be ready to explain evaluation concepts to the interpreter and provide opportunities to develop a relationship so that future evaluations will be interpreted correctly. Refer to the following table "Tips on Using an Interpreter" for more information.

## **Tips on Using an Interpreter**

- Interpreters are a communication link; they do not add information or alter the message
- Some consumers who are deaf prefer to use their voice, even with an interpreter
- Use everyday words and avoid jargon (for consumers who are deaf—It is okay to say words or phrases like hear or sounds good)
- Be aware of your pace—you may need to slow down or divide your instructions/communication into smaller units to allow for an accurate interpretation

## **Function of an Interpreter**

- Allows for more direct communication
- Improves accuracy and avoids misunderstanding
- Decreases frustration
- Facilitates more complete communication, so individuals feel free to ask questions & offer in-depth explanations
- Saves time
- Makes any non-verbal communication clear

## **How to work with an Interpreter**

- Brief the interpreter about the concepts and topics covered in an evaluation BEFORE the evaluation
- Maintain eye contact with the consumer and AVOID looking at the interpreter
- Allow the interpreter near you so the consumer can watch the interpreter and you
- Address the consumer—there is no need to say, “Tell or ask the consumer”
- Professional interpreters are bound by a Code of Ethics requiring them to interpret EVERYTHING (even asides or

casual comments)

- Be aware of the environment, especially lighting—ask the consumer the best position or place for the interpreter to stand or sit
- Remember interpreting is physical and intellectual work and both the interpreter and consumer may need more frequent breaks

## **Modes of Communication**

The following discussion of communication begins with an acknowledgement of the need to communicate effectively using spoken language and the influence of cultural variables on the process. Following spoken language are four other modes of communication used by consumers.

### **Spoken**

*A systematic way of conveying or communicating ideas; specifically, human speech; the expression of ideas by the voice, sounds, expressive of thought, articulated by the organs of the throat and mouth.*

It has been said that language sets homo sapiens apart from all other mammals. Most individuals readily understand the concept of spoken or oral communication, even though they may not know all of the technical aspects of the process. Most children are able to learn their oral language, through use, without any formal instruction (Genishi, 1998). It appears that the development of language/oral language is the interaction among a child's thinking abilities, environment and genetics (Genishi, 1998). Since environment is a contributory factor in the development of spoken communication, it may be considered a product of culture; they are intertwined. As language is learned within the confines of one's environment and culture, the individual learns a dialect specific to his or her environment. During the maturation process, individuals may receive formal language training at school, where they learn the formalized form of the language used in their region.

People use the spoken word to convey their thoughts, desires, needs, and wants, interacting with others in a variety of situations. During the course of a VE, communication is essential to valid results.

Most individuals will participate in an evaluation using oral communication to interact with the evaluator. It should always be foremost in the evaluator's mind that the manner in which an individual communicates and interacts with others is culturally based. Evaluators should have as much information as possible regarding the verbal, as well as non-verbal communication patterns that vary among the cultures of the consumers they serve.

The use of language/oral communication differs with languages and cultures. Oral communication in the dominant American English method tends to be very direct and exact, in other words, "say what you mean" (Jezewski & Sotnik, 2001). Individuals from other cultures often verbally express themselves in a much different manner. In many cultures verbal expression is much less direct and is related to the situation at hand. Individuals are left to their own interpretation, which is based on their understanding of the culture and the contextual relationships of the language. The contextual basis of languages may even differ in the various dialects of the same language. In the American style of verbal English there is one word for "no", while the Japanese have more than a dozen ways to say no, and all are contextual/situational, (Jezewski & Sotnik, 2001).

The successful completion of a VE is dependent upon effective communication between the consumer and the evaluator. If a consumer can neither speak nor understand English, or is not proficient enough to communicate successfully in English, the VE will not produce the required results. The evaluator must ensure that the English as Second Language (ESL) consumer is provided a means to communicate in an effective manner. In the ideal situation, the evaluator speaks the consumer's language and dialect and is from the consumer's culture. Often that is not possible, and the next step would be to attempt to obtain an individual to serve as interpreter, again, someone familiar with the language/dialect and culture.

To understand a person's oral language in totality, the interaction between oral/verbal language and non-verbal must also be examined. Long (1999) found that there was a language barrier between the dominant Caucasian/White Culture and American Indians, even when both speak only English. Long observed that Cherokee children used more non-verbal communication than their White peers, and also used much briefer verbal statements when expressing themselves. On standardized tests, the Cherokee children had very good receptive language abilities but low scores related to expressive lan-

guage, thus Cherokee children were often misdiagnosed with a communication disorder (Long, 1999). It is not just Cherokees/American Indians who have the problem of communicating in English in a manner different than the dominant culture. Individuals from the African American community face some of the same communication barriers. Research shows that communication and language among African American males are factors in higher than normal placement in special education and speech pathology programs (Taylor, 1987). These speech factors are often related to culturally based speech patterns (Taylor, 1987). Many other cultural groups may experience the same issues, and evaluators must take care to examine closely the total communication systems used by consumers.

The utilization of standardized measures must be carefully examined to ensure that the consumer's potential for employment is realistically assessed. Before using any standardized measures/tests the evaluator should make every attempt to determine if the measure is appropriate given the consumer's language and cultural background. Care should be taken to ensure that the instrument was normed with a group that is consistent with the language/cultural background of the consumer. Some tests may have been translated into the language of the consumer, but the translation may not be valid and would not be appropriate even if the consumer understood it. In a direct translation there is no assurance that a concept in the source culture has meaning in the target culture (Chang, 2001). The evaluator may choose to utilize other methods of assessment when standardized measures are not appropriate. Reliance on behavioral observations or situational assessments may be incorporated to a much greater extent than usual. Often, once a reliable and effective manner of communication is established, the consumer can provide much information related to abilities, language understanding, and culture. It is incumbent upon the culturally competent evaluator to use methods of evaluation that will result in a true and accurate assessment of the consumer's potential. Often, this means adapting various measures to fit the situation, or creating methods of assessment that will produce the desired information.

## **Print**

*The use of symbols, letters, words or pictures to convey ideas, thoughts or emotions or to describe events in various media, such as text, film, photographs, or Web pages.*

Many of the materials used in evaluation are text-based and include print information (e.g., labels, tests, directions, or job descriptions) on paper or on a computer monitor (e.g., various electronic documents, spreadsheets, or Web pages). Therefore, it is important to consider the individual who needs to access print information. The consumer may have difficulty due to literacy level, learning disability, traumatic brain injury, stroke, visual impairment (i.e., blind or low vision) or another disability that impairs the ability to access print or electronic documents.

To determine print access needs the evaluator must consider the clinical diagnosis and the context for use of print media. The first and foremost question to be answered is “What are the consumer’s goal(s) or reason(s) as related to reading?” Written communication may be for personal use or interaction with others. Both purposes need to be viewed from the environment in which the communication will take place, i.e., home, school, community or work (Koenig, 1992).

Once the purpose is determined, the evaluator must determine the preferences of persons who are blind. The evaluator needs to ask, does the consumer:

- Know/use Braille? If yes, Grade 1, 2 or 3?
- Prefer Text-Braille (Text on one page and Braille on the other)?
- Not know/use Braille and prefer:
  - Electronic text (on-line, on disk) that is used with document scanning or screen reading software and a speech emulation system?
  - Raised text symbols such as the alphabet or icons (note: these are typically used as a labeling system and not as a way to access text documents)?
  - Audio taped text (cassette)?
  - A reader?
- For persons who have low vision, Gale Watson suggests asking about the reader’s preference in the following areas (personal correspondence, 04/30/2004):
  - Critical print size (smallest size print that permits comfortable and fluent reading)
  - Accuracy of reading (recognize words accurately, espe-

cially longer words)

Text navigation ability (seeing words in correct order, navigating to the next line of text without skipping or losing place)

Comprehension (remembering words and sentences in short term memory to understand the meaning of the text while balancing the requirements to read and be able to recall the main points of a short text or answer questions about a text)

Duration of reading (how long before fatigue and recovery time once fatigued)

- Use of low vision devices (skill & familiarity, scrolling distance, visual field limitations). Restrictions of the device (e.g., illumination, contrast, distortion). Specific questions to ask follow. If the answer to any of these questions is no or do not know, then the consumer should be referred for a low vision exam.

Does consumer use device(s) regularly?

Does the consumer feel the device(s) are useful for all reading needs?

Is the device useful for writing as well as reading? and

Does the consumer feel comfortable in the ergonomic environment where the device is used?

The evaluator also needs to consider how to make print more accessible for persons who have low vision. See the following “10 Basic Guidelines from the Lighthouse for the Blind” (Arditti, 2004) for accessibility tips.

### **10 Basic Guildelines**

1. Use high contrast. Try light (white or yellow) letters on dark background (black) in addition to traditional dark print on light background.
2. Use black or white type (save the other colors for headlines if needed)
3. Point or font size—16 to 18 points is considered large print
4. Leading (spacing between lines of text) should be 25 to 30 percent of point size.

5. Use standard serif or sans serif fonts (nothing cursive or hard to recognize letters). Also avoid condensed typefaces.
6. Font style—Upper and lower roman typeface is easier to read than italics.
7. Use wide spacing (monospaced fonts) and avoid proportional fonts.
8. Extra wide margins are helpful as are spiral bound documents that may be placed on a stand for magnification.
9. Paper finish—avoid glossy or slick finish because of the glare.
10. Distinctiveness of the document cover (for example color, fonts or size) can make the document easier to find.

The evaluator must also consider the consumer's functional literacy skills, which are those skills "required to complete everyday tasks, such as reading menus or maps, maintaining a checking account, paying bills, filling out forms, and spotting street signs and house numbers" (Koenig & Rex, 1996). One example of a functional assessment was from the National Blind Rehabilitation Outcomes Survey (NBROS). This instrument was used to measure outcomes in the Department of Veterans Affairs Blind Rehabilitation Centers and civilian rehabilitation centers. Fifteen literacy related items are reported in the NBROS List.

### ***National Blind Rehabilitation Outcomes Survey***

How frequently have you?

1. Told time with a watch or clock?
2. Participated in hobbies?
3. Made a phone call without operator assistance?
4. Recorded information, such as measures, lists or schedules?
5. Signed your name to a document?
6. Spotted signs or house numbers?
7. Read mail, such as letters or bills?

8. Taken your prescribed medications (including injections)?
9. Identified items, such as clothes, tapes, tools or money?
10. Maintained your checking account?
11. Shopped (such as for clothes or food)?
12. Communicated in writing?
13. Read a newspaper, magazine article or book?

Another critical area for consideration is the use of assistive technology for print access. Questions related to prior use and the availability of AT are addressed in Chapter 4.

## **Sign Language**

*Sign language is a visual representation of thoughts, ideas or commands through the use of standardized body movements (gestures or signs) that follow specific grammatical and structural rules to convey information.*

To understand the influence of sign language on evaluation it is important to know the variations in sign systems and the influence of contact language. There are several sign language systems within the United States. The following discussion centers on two systems. First is American Sign Language (ASL), which is the language of persons who are culturally Deaf, and the second is a form of manually coded Signed English, which is mostly used in schools. ASL has unique characteristics and follows specific rules. For example, English follows the rule of adjective/noun (for example, vocational evaluator) and ASL uses noun/adjective (evaluator vocational). In ASL, there are signs for tester and work but not for the English words vocational and evaluator. Tester is a combination of two signs, test and person. Combining the ASL grammatical rule with translation for vocational evaluator, a Deaf person may write test person work. This written form of vocational evaluator makes sense to the Deaf person because the concepts of a person conducting a test (evaluation) and work (vocational) are present. However, to the casual observer it would be easy to mislabel the Deaf person as demonstrating poor language skills. In truth, the Deaf person is proficient in ASL and demonstrates poor English skills.

Signed English imposes English grammar rules in combination

with fingerspelling for English words and initialized signs to create a pidgin language that attempts to bridge the difference between ASL and English. Using vocational evaluator as an example, the signer would fingerspell the word vocational and then use an initialized sign for evaluator. Initialized signs use the same concept (usually) as the ASL sign but the first letter of the word serves to distinguish it from a similar sign. For example, the concept of a tester in ASL was described above. In an English based system, the signer would use the same movement for tester in combination with the handshake for the letter E. This would create a sign for evaluator. Combining the two would result in the following fingerspelled/signed phrase v-o-c-a-t-i-o-n-a-l evaluate + person, which still does not translate into proper English.

The point of contact between a sign language user and a non-signer is called the contact language and this is where the evaluator interacts with the signer. At this point, the signer will adapt to a more English based approach with a non-signer. This adaptation results in a conversion of sign messages from an ASL structure to one closer to what the signer considers to be an English-based sign system. The greater the consumer's proficiency with English, then the more successful will be the change and the converse holds true as well. For a sign language user, English is considered a second language and consequently written media may not be a viable means of communication as discussed above. The evaluator needs to consider interpreting/translating issues as raised in the preceding section. Other factors to consider throughout the evaluation include a need to:

- Provide alternate forms of print documents, such as captioned video tapes, documents formatted with an ESL approach, use of pictures;
- Realize that there are no reliable standardized tests for consumers who use sign language;
- Confirm understanding of instructions through questioning;
- Control environmental barriers such as lighting, glare and noise;
- Be sure appropriate assistive technology (assistive listening devices, TTYs, flashing alarms) are in place not only for the evaluation to occur but also included in the recommenda-

tions;

- For consumers who are low functioning and deaf, an evaluator who is a skilled signer is imperative (Dew, 1999); and
- Maintain a welcoming attitude.

If a paper-and-pencil approach is used in the evaluation, then the following writing tips may be helpful (Sligar & Northrup, 1999).

### ***Tips for Writing with a Consumer who is Deaf***

Establish the topic.

*Today, we need to discuss your application.*

Begin your sentence with TIME first then use simple sentence structure:

*Yesterday, I saw you. NOT I saw you yesterday.*

Use simple sentences in simple tenses—avoid and, but & or.

*Tomorrow, I will see you. We will finish the forms.*

*NOT Tomorrow, I will see you and we will finish the forms.*

Use short simple sentences with chaining of ideas like a chain link fence.

*Tomorrow, I will see you. We (chains you & me) will finish the application form.*

*The form (from previous sentence) is important for your work.*

*The forms are for your work application (chains the two previous sentences).*

Ask for verification of understanding.

Another area of consideration in the communication with consumers who use sign language as well as any consumer who experiences a hearing loss is the application of assistive technology. These devices may be categorized as follows:

- Assistive listening devices that include public or personal amplification systems (e.g., FM or loop systems) and directional microphones;
- Amplification devices like hearing aids and telephone ringers or handset amplifiers;

- Telecommunication devices—TTY (Teletype machine), TDD (Telecommunication Device for the Deaf) or TT (Text Telephone), which are all the same device with different names. The TTY is preferred by the Deaf community, TDD is how the manufacturers describe the product and TT is the legal reference from the ADA;
- Telecommunication service--Each state has a relay service for use by persons who are deaf to call hearing persons who do not have a TTY and vice versa. The local access number is listed in the telephone directory and most states have adopted 711 as the number to call. There is no charge for this service;
- Signaling/Alerting Devices include products that may vibrate or have lights that flash such as flashing doorbells, telephone ringers, smoke detectors and baby cry (or other noise) alerts; and
- Captioning services to include open captions (for example weather alerts on television) and closed captions that require a special chip that was installed on all new televisions since 1993. There is also Computer Assisted Real Time (CART) captioning for meetings, classrooms, etc. and other forms of computerized transcription services.

### ***Nonverbal***

*Information or feelings expressed via gestures, facial expressions, and behaviors and without the use of words.*

Nonverbal behaviors are embedded in the communication process and used by all people in all walks of life to enhance, reinforce and give greater meaning to the exchange of information, thoughts, ideas and feelings. In communication, body language is critical throughout the exchange of information. The use and interpretation of nonverbal language is also heavily influenced by culture. This section discusses the importance of nonverbal behaviors for those consumers who use it as their primary form of communication. Consumers who are developmentally disabled often express their wants, needs, fears, joy and other emotions through their public behaviors. Studies have supported the idea that “a relationship exists between communicative intent and the function of behavior” (Fielding, 1996, p.1).

Interpretation of the meaning of these nonverbal behaviors is highly dependent on the context and the prior knowledge of the receiver as to the sender's communication style. Some situations are easy to interpret, such as hunger around meal time, pain with an apparent injury, or happiness during an activity the consumer enjoys. Other situations are more difficult such as withdrawal from a group activity, biting or head butting with no apparent antecedent or inability to complete a routine, previously mastered task. These situations require previous knowledge of the person's daily schedule, likes/dislikes and idiosyncrasies.

The provision of evaluation services is facilitated through alternative (choice or a substitute) or augmentative (to add or enhance) communication (AAC) devices that include both high and light tech and the application of communication strategies. The Tech Connections (2002) reports that

There are a variety of communication devices available. Devices can have a single message or multiple messages. Medicare categorizes devices based on the following features.

1. Speech Output- *Digitized* (recorded human speech) or *Synthesized* (electronic conversion of text into speech).
2. Message Type- *Prerecorded* (messages that are stored) or *Message Formulation* (can spontaneously create novel messages).
3. Recording Time- *less than or equal to 8 minutes, greater than 8 minutes, or based on the memory size of the device in general* (e.g., 16 MB).
4. Access Method- *Direct Physical Contact with Device* or *Multiple Access Methods* (e.g., switch, mouse, joystick, etc.).
5. Message Formulation Technique- *Spelling only* or *Spelling and Other Methods*.

The above may be in the high tech categories because computers serve as the primary means for the alternative form of communication. Light tech categories described by the Crippled Children's Association of South Australia (2004) may include:

- Object symbols—small versions of, actual parts from or a meaningful artifact such as a fast food wrapper that means the consumer wants to eat at a particular restaurant or a bus token that means it is time to go to work;
- Photos, drawings, symbols—are used like the object symbols to represent words in a visual way;
- Communication boards and displays—sets of photos, drawings or symbols to communicate; and
- Chat books—small books, often a photo album, that have photos, pictures, drawings, symbols, words and messages about the consumer.

Nonverbal communication also includes strategies for sending and receiving information. Often the clues to understanding nonverbal communication are via public behaviors, which must be taken in context with the situation and under advisement from people who know the consumer. Ryan (2004) suggests that “it is reasonable to attempt to interview individuals...many understand more than they can express and can give very helpful answers via gestures, nods, drawings, and non-speech vocalizations.”

The vocational evaluator needs to be aware of the various types of AAC and use them as a way to insure access to the evaluation and to gain direct contact with the consumer. The advice offered by Ryan (2004) concerning the evaluation of persons with developmental disabilities applies to the VE of consumers who communicate nonverbally. Techniques for collection of data for vocational evaluators include:

- Observe the consumer in both formal (controlled) and informal settings;
- Gather data from people who know the consumer very well, e.g., family members, care givers, teachers, work supervisors, or job coaches;
- Spend unstructured time with the consumer to identify more accurately the subtleties of communication;
- Use videotapes to study cues that may be missed in vivo;
- Triangulate observational data with family history, case re-

cords and other background documents; and finally

- If data collection is incomplete or does not provide answers, then begin again with fresh eyes to examine the unstructured process for the missed cues.

### ***Tactile***

*Interpersonal communication through touching, which may include informal gestures (shaking hands) or formal mechanism for transmission of a language (sign language).*

The importance of touch in communication is easily seen while watching a couple hold hands, a parent caress an infant, or a supervisor give the proverbial pat on the back. The occasions to touch in evaluation are controlled by social and cultural mores as well as organizational rules regarding procedures for calming an upset consumer or showing praise. Tactile communication as a means of formal communication requires further explanation. This is a different way to communicate and one that is intensely personal and physical for both the sender and receiver of the communication. Persons who are deaf-blind are the primary users of this mode of communication. There are many factors that influence communication with this population and some of these are etiology, age of onset, education, degree of loss (which ranges from mild hearing/vision loss to total loss of both hearing and vision) and the presence of other disabilities. The focus of this section is on those whose primary form of receptive communication is via the tactile mode. One way to categorize tactile communication is by the need for special training or equipment. Refer to the following information from the Table of Common Modes of Communication used by Deaf-Blind people (Cooper, 1997) for more information.

Methods that do not require special training/equipment:

- Print on Palm/Back. Communicator prints in block capital letters on the person's palm, back or body area with sensation. Each letter is written in the same location as the previous letter.

Methods that require special training but not special equipment:

- Tadoma. The hand of the person who is deafblind is placed on

the mouth, cheek, and chin of the sender. The voiced message is read by feeling vibrations. Tadoma works best with those able to speak their own response.

- Small Sign Language or Restricted Field Signing. Those with narrow field of vision may receive messages by signing in a very small area near the signer's mouth.
- Tracking Signing. Frequently used by people with Usher Syndrome, the individual who is deafblind holds the fore-arms of the signer and follows the signing visually, using their hands to know where to look.
- Tactile Sign Language. The sender signs in a normal fashion. The person who is deafblind feels the shape of the signs by placing one or both hands on top of the signer's hands.
- Tactile Fingerspelling. Similar to tactile signing, the person who is deafblind touches the signer's hand during fingerspelling.
- Finger-Braille. The communicator uses six fingers in the Braille positions to indicate each letter. This method is not widely used in the US at this time.

Methods that require special equipment:

- Alphabet Glove. The letters of the alphabet are printed in indelible ink on a lightweight glove. The communicator touches the letters desired to spell out the message. It works best with people who can speak their own response.
- Alphabet Card. An embossed index card with the letters of the alphabet raised. The sender places the tip of the index finger of the person who is deafblind on the desired letters to feel the shape of the raised letter."
- Braille Alphabet Card. This is like the alphabet card, using Braille instead of embossed letters. Ink-printed letters are included to facilitate use for the sighted sender.
- Tellatouch. Similar to a typewriter with a standard keyboard, the output is in Braille. It is read one letter at a time.

- TeleBraille. The communicator types on a TTY keyboard. The recipient reads 20 Braille cells and then requests the next set. The person who is deafblind responds by typing.
- Braille Tape. The sender types in Braille and the letters are embossed on a long, thin strip of paper. The tape may be read immediately or later.

In most instances, the evaluator will require the assistance of a tactile interpreter and many of the interpreter issues addressed previously apply in this situation. However, for direct interpersonal communication to occur, there are two important considerations for the evaluator—personal comfort and space. To assess a person who is deaf, the evaluator may be able to gesture and demonstrate the task at hand and, in the case of a consumer who is blind, the evaluator may be able to describe and talk the consumer through the task. With an individual who uses tactile communication, the evaluator must touch the consumer and allow the consumer to touch the evaluator. Before the evaluator is able to begin processing how to provide the demonstration or even gain the consumer's attention, the evaluator has to deal with personal space issues. How comfortable is the evaluator with touching another person in the work situation? This behavior is not generally accepted practice and may go against the personal values of the evaluator. Conversely, how comfortable is the evaluator with allowing a consumer to invade personal body space and make physical contact? The evaluator must deal with personal feelings about this communication which are also influenced by factors of hygiene and safety.

Due to the close proximity of the communication, gender may be a topic of concern. How can the evaluator best communicate with a consumer of the opposite sex? All of the above concerns become overlaid with appropriateness of touch and the possibility of knee-to-crotch seating to ensure accurate signing.

Given the above issues the evaluator who becomes familiar with tactile communication is able to have direct personal contact and can not only meet the consumer but also have a unique communication opportunity. Some suggestions for ways to communicate are offered by Spiers & Ehrlich (2002) and summarized in Tips for Tactile Communication.

### ***Tips for Tactile Communication***

1. When in doubt—ASK the person how to communicate or be of assistance.
2. The first time you meet a consumer, gently touch the consumer's hand to initiate a conversation.
3. Always identify yourself with your full name or sign name after the consumer knows you (Never ask “remember me” or “guess who”).
4. Remember to sign or gesture no or yes instead of shaking your head.
5. When you give a demonstration, make sure it is sequential and allow practice time.
6. When you see a consumer, take a moment if only to say hi—remember their world is as large as their reach.
7. During a conversation, you may need to talk with another person or look at something. If this happens, ask the consumer to wait or hold until you can return your full attention.
8. When you have to leave, tell the person goodbye with a natural gesture and make sure the consumer is oriented to place and if not, inform the consumer about the surroundings.
9. Be sure to avoid eating heavily spiced foods such as garlic, before your communication and avoid strong cologne or perfume.
10. Use common sense, be courteous, have fun, and when you are not sure what to do—refer to number one!

### **Conclusions**

This chapter discussed the importance of language and communication on evaluation with several implications for the consumer and the evaluator. In order to glean a more complete profile of the consumer, the evaluator needs to include ecological or situational assessment techniques. These techniques facilitate an understanding of how the consumer functions in a typical environment. It is also incumbent upon the evaluator, work sample developers, test makers and others who provide assessment tools to study the appropriate use

of various instruments with populations who use English as a second language, require alternatives for print access, use sign language, use behaviors as primary communication mode or require tactile communication. Interpreters used in evaluation need to be viewed as partners, who need training and development, and not as impersonal translation tools.

Evaluators need to seek training and skill development to use different methods of communication to include testing and alternative communication techniques for persons who use ESL, alternative print access, sign language, behaviors, and tactile communication. Another important skill set to develop is use of assistive technology for communication in the process of evaluation and as a tool for recommendations in job training or placement.

Due to the heavy influence of culture on the communication process, evaluators need to learn to recognize and understand their own cultural bias along with the ability to recognize the consumer's cultural influences. This recognition sets the stage for a positive interaction throughout the evaluation.

## Self-Study Questions

1. John, who is Deaf and a sign language user, wrote “I like marriott better hyatt deaf many.” Based on this language sample you can safely state that John has
  - a) Poor language skills
  - b) Poor English skills
  - c) A developmental disability in addition to his deafness
  - d) Poor interpersonal skills
2. Which of the following is NOT true about the use of an interpreter in vocational evaluation?
  - a) Changes the interpersonal dynamics
  - b) Family members or friends with native language skills are reliable interpreters.
  - c) The evaluator needs to educate the interpreter about psychometric tests and work samples.
  - d) Qualified and certified interpreters are available though at times may be difficult to locate.





## **Chapter Seven**

# **Communicating Findings And Outcomes**

### **Introduction**

The vocational evaluation (VE) report has been a key component throughout the history of VE service delivery. The Commission on Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES), the international certifying body for VE professionals, has consistently viewed report development as an important knowledge and performance area for vocational evaluators since its inception in the 1970s. According to the current Standards and Procedures Manual for Certification in Vocational Evaluation (2003), CCWAVES requires applicants to submit a sample VE report of their work, along with other materials. In addition, VE report development is identified as course content required of vocational evaluation applicants and certificants within the CCWAVES “Professional Communication” area. The VE report continues to be the primary form of communicating results of the evaluation or assessment, and serves as an official document of the activities and outcomes of the process.

All of those involved in writing VE reports have struggled to make them meaningful to the consumer, referral source and others involved with the person being evaluated, increasing the efficiency in the actual amount of time it takes to complete. Since many VE profession-

als view “report writing as a boring and routine exercise, often robbing them of precious time they feel could be better spent in direct contact with the consumer” (Thomas, 1986, p.i), it is time to rethink the purpose of the report and consider alternatives. Perhaps it is time for the final report to take on a different form. In this age of consumer-driven services and empowerment, what type of information could the consumer contribute directly to the final report? In order for the report to be meaningful, it needs to be viewed as more than one of the final tasks in the VE process to be read and placed in a file. Instead, it needs to have greater direct applicability to the vocational future of the consumer that can be utilized and even expanded upon after the completion of the evaluation. With the use of technology, there are numerous ways of achieving this applicability. This chapter will discuss ways of communicating VE findings and outcomes by looking at: (a) guiding principles, (b) an example of a new written report, and (c) alternative methods and formats for communicating findings.

## **Guiding Principles of The Vocational Evaluation Report**

The active participation of the individual and/or their advocate is paramount to provide direction in vocational assessment and vocational evaluation processes. The decision to participate and the decision to select among options in the evaluation or as a result of the evaluation should be placed as much as possible in the hands of the individual consumer. On every occasion, the intent of the rehabilitation process is working with and on-behalf of the interest of the individual consumer. (14<sup>th</sup> Institute on Rehabilitation Issues, 1987, p. 22).

For vocational evaluators, the narrative report becomes the official record that documents participation of the consumer, the assessment processes, the outcomes of the assessment, and interactions between the consumer and evaluator. Adhering to some key guiding principles during assessment and report writing can ensure that the final report document produced is affirming and valuable to the consumer and his/her stakeholders.

### ***Consumer Information Leads to Empowerment***

Consumers must be brought into the planning and execution of the VE as soon as possible. Early in the process the purpose, use, and likely course of the evaluation should be explained to the consumer in language that is easily understood. Evaluators should also periodically check with the consumer throughout the process to ensure that they are still participating rather than passively accepting the work of evaluation.

Consumers participate in a VE when they have asked for or are thought to need vocational direction. The evaluation report provides information to give the consumers direction or next steps in terms of their ability to train for, find, and hold employment of their choosing. The information contained in the evaluation will allow the consumer to gain control over his or her life, and assume responsibility for changes that lead to a healthy, active lifestyle, and positive mental health (Hutzler & Sherrill, 1999).

Consumers may feel empowered with control of and responsibility for the evaluation process. Whitmore and Kerans (1988) describe empowerment as an interactive process through which people experience personal and social change, enabling them to take action to achieve influence over the organizations and institutions that affect their lives and the communities in which they live.

Empowerment thus defined encompasses organizations and services indicated by the evaluation findings. The information in the evaluation report enables the consumer to better negotiate the services recommended. The sequence and relative importance of these services are thus made clear to the consumer and their family.

The path suggested to the consumer leads to positive vocational outcomes rather than procedural or attitudinal roadblocks. The consumer now has what is needed to move into the chosen lifestyle.

### ***Report of findings must be relevant to the consumer's interest***

Methods typically used in VE may appear irrelevant to the consumer. Consumers often appear to be perplexed by tools used and confused as to how those tools might help them find work or establish long-term career goals. Incorporating work samples that use real work and community-based assessments such as situational assessments, job tryouts, or work experiences along with paper and pencil tests can help the consumer make the connection between the assessment and goals. These methods provide good face validity and appear to be more relevant. They are also more motivating and provide the environmental variables that are impossible to duplicate

with a paper and pencil test (Parker, Szymanski, and Hanley-Maxwell, 1989). Providing consumers with a complete and thorough explanation of the purpose and relevance of all assessment tools and relating evaluation outcomes back to the consumer's stated interests and goals can combat such confusion and potentially enhance acceptance of report findings and recommendations.

### ***Material written to and understood by the consumer***

A 1992 study of adult literacy in the United States put nearly 50% of the adult population at a reading level below that of the typical VE report (NCES, 1993). At this level, individuals are generally able to locate information in text, to make low-level inferences using printed materials, and to integrate easily identifiable pieces of information. The written report must therefore communicate technical information in a non-technical manner. With that in mind, keeping the readability to at least a sixth-grade reading level can help to circumvent some of the problems related to literacy.

Most word processing programs have a spelling/grammar tool that provides the reading level of the document. For example, this paragraph has a 10.7 grade reading level. Keeping sentences short, limiting complex sentences with a lot of commas, and avoiding jargon generally lowers the reading level.

### ***Reflect wishes/desires of the consumer***

The consumer's desire for a particular type of work will become clear to the vocational evaluator through rapport building in the early stages of the evaluation. Consumers may not have a clear perspective on their own abilities, or an understanding of what is needed to get and keep some jobs. Information regarding the world of work should be part of a good evaluation of the consumer's potential to enter and thrive in that world. Experience, skills, and educational requirements for work thus explored can suggest an area for assessment to determine the match between the consumer and the job.

Incorporating the consumer's wishes and desires into the final report and maintaining sensitivity to cultural values and mores, the evaluator potentially increases the possibility that the evaluator's recommendations will be followed and that the consumer will find the report relevant and valuable.

### ***Strengths-Based/Finding the "Yes"***

The intent of VE is to provide the consumer with information on avenues of choice regarding jobs in the community and long-term

career planning. The consumer's VE explores the match between his or her capacities and the world of work. Occupations suggested by the consumer or the assessment results can be explored systematically to determine if the consumer's strengths are sufficient to support an IPE to accomplish that goal. Rather than exploring why an occupational choice would not work, the evaluator should explore the accommodations and supports needed to make it work and document those accommodations and supports in the written report. *In effect, the vocational evaluation becomes the means for helping the consumer to get to yes and the report documents or provides the roadmap for getting there.*

### ***Involvement of consumer in staffing/post conference***

The vocational evaluator should convene a meeting to ensure that the consumer understands the recommendations made (14<sup>th</sup> Institute on Rehabilitation Issues, 1987). This meeting may continue the momentum begun with the VE, and serve as a bridge between assessment and the work of the IPE. Dissatisfaction or disagreement can be explored at this time to prevent the process from becoming stalled. In this way, the consumer is maximally involved in the projected content of the final report and recommendations, and has the opportunity to shape the IPE.

### **Consumer's Rehabilitation Stakeholder Team**

Any aspect of the consumer's life can potentially impact the ability to work successfully. One professional cannot handle the wide range of issues/barriers that may be experienced by individuals with disabilities. Therefore, whenever feasible, the consumer's VE should include the input of the many rehabilitation specialists providing services. Including the consumer's evaluation team or a multi-disciplinary approach is common for transition from school to work teams. The 14<sup>th</sup> Institute on Rehabilitation Issues (1987) addressed this saying that other rehabilitation professionals who have done specific assessments, as a part of the vocational evaluation process should work in concert with the vocational evaluator and the individualized VE plan. A rehabilitation stakeholder team benefits the consumer by looking across potential problem areas to find systemic solutions to work problems. By including their input prior to writing the final report, the evaluator can ensure that recommendations made are an accurate reflection of what is feasible. Persons on the team may include:

Consumer

Vocational evaluator

VR counselor

Parents/Guardians/Advocates

Assistive technology specialists

Educators involved in the consumer's transition to work

Physical/Occupational/Speech therapists

Psychologist

Local Labor Market Specialists

## **The Narrative Report**

There are hopes for assessment results to be entirely consumer-centered using individual portfolios. Today's reality suggests that the purchaser of services will want some form of written documentation of the process, findings, and recommendations. Recognizing this reality, some basics should be included in each written report. Written documentation should adhere to the purpose of VE—to gather employability related information that will assist/empower an individual in making decisions and reaching his or her maximum vocational development. To assist and empower the individual in making decisions, the report should provide information, data, observations, and interpretation in a manner that includes the feedback and input of the person being served. In essence, the report should not present any surprises, as the evaluator should have included the consumer as a partner throughout the assessment. The report will merely reflect the discussion which has already occurred with the consumer. In the best case, the referral source and all stakeholders involved in the assessment would have been part of this discussion. The portfolio and the written report should both carry the same information, but the consumer has greater control of the portfolio, which can be used to market oneself to a prospective employer. The information from the written report could be a component of the individual portfolio.

The Commission on the Accreditation of Rehabilitation Facilities (CARF) Employment and Community Services Standards Manual offers general guidelines for all written vocational evaluation reports, including that the report

- Answers the referral questions.
- Is shared with the person seeking employment.
- Is disseminated in a timely manner to agencies and individuals responsible for implementing the report recommendations.

- Is relevant to the desired employment outcome.

CARF guidelines indicate the evaluation report may include independent living considerations; behavior observations; proposed reasonable accommodations; recommendations for assistive technology; assessed interests, aptitudes and abilities; and specific vocational recommendations or career options based on the local job market. The report is shared in an understandable manner with the person seeking employment. This may mean some additional explanations and supports are necessary for comprehension and retention – e.g., the person might desire to have a personal advocate in attendance (CARF, 2003).

It is critical that the referral questions are answered, as they should have been the foundation for the Individual Vocational Evaluation Plan and, therefore, directed the assessment procedures. Knowing both the purpose of assessment and the individual referral questions provides the format for a written report. Writing an evaluation report is not unlike writing a short story or novel. The author should have the ending in mind before the story begins. In documenting the “picture” of the consumer as well as offering interpretation and recommendations for the future, the author (evaluator) should provide consistent documentation that leads to the recommendations. The report provides the pertinent data that supports the recommendations and vocational options used for an empowered decision. The report is the documented outcome and result of the consumer-evaluator partnership formed to answer questions and investigate vocational options. The report follows only after analysis and interpretation of vocationally relevant data, standardized assessment results, referral and other supportive information, and behavioral observations have been done.

The report stands as the documentation by which the total VE process is judged. Sections or components of a written report should contain at the very minimum: demographic information of the consumer, an introduction which cites reason(s) for the referral, vocationally relevant background data, a summary of vocational interests and dislikes, worker characteristics or traits, vocational aptitudes and potential, functional capabilities and limitations, learning styles or preferences, a summary which outlines the vocational profile, long- and short-term goals, and recommendations which are supported with rationale from the evaluation process. The report should be written in a positive tone, emphasizing those attributes and findings that can

be built upon to facilitate vocational development and eventual satisfying employment. Vocational needs should be described in terms of how they can be dealt with or treated to support the consumer's vocational aspirations. The term "need" is much more positive than the terms "limitations," "liabilities," or "weaknesses." It denotes that something can be done to meet those needs, while the more negative terms seem to place restrictions on any possible attempts to address them. It is preferred that the term "need" be used in reporting. (14<sup>th</sup> Institute on Rehabilitation Issues, 1987, p. 61).

The report should be clear and consistent in its discussion of "needs," being certain to include only those items that would constitute barriers to the consumer's goals. For example, an adult having a measured mathematics computation level at the fourth grade does not, by itself, constitute a "need". It will depend upon the consumer's interest level and vocational aspirations as to whether that math level presents a barrier to success. Focusing on strengths and accommodations helps the consumer get to "yes" and enhances a positive partnership between the evaluator and the consumer.

"When high tested interests were included in the evaluator's recommendation, consumers tended to become employed at a higher rate" (Cole, 2001, p. 275). It seems obvious that a person would prefer an area of interest over a less interesting vocational choice. However, often a vocational choice is based upon availability, money, environmental pressures or convenience. Therefore, the report should additionally identify vocational options exclusive of the person's interests, but consistent with the person's abilities and capabilities. The optimal plan would be to match a person to a career consistent with strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice; but to achieve empowerment, all options should be identified. One way to address this in the written report would be to include vocational options that include a dream job, an entry-level job, and an intermediate job.

The dream job is one that the individual sees as a future career goal regardless of concern about education, training, or status. The dream job presents a future target, and the evaluation results should be able to define a plan to achieve this dream. Needs or barriers to this dream job should be identified and discussed so the consumer has all the available information to make an informed choice (Ahlers, 2002).

The entry-level job is one that would be available should the con-

sumer decide a paycheck is more important today than other priorities. Even if this decision is made early in the evaluation process, the dream and intermediate jobs should still be investigated and discussed.

The intermediate job would be one that is between entry-level and dream. In a long-range career plan, the intermediate job is often related to, or a step toward, the dream job that would require some additional training, certification, education, or skill development. When all three of these are addressed in the written report, the consumer has information for immediate as well as future vocational and career planning. Having these options identified in each evaluation report provides the foundation for personal, empowered career choices.

The written report can be used to continue the empowerment process with the VR counselor and other rehabilitation service providers who can contribute to the consumer's ability to ultimately attain desired employment. When all members of the multi-disciplinary empowerment team (including the consumer) work together using a uniform process, continuity in service delivery is achieved and lasting success optimized. The counselor and consumer can use the information from the assessment to develop a comprehensive, empowering Individualized Plan for Employment (IPE). The new paradigm would require that rehabilitation and employment teams be created with well defined, overlapping roles that facilitate a seamless service delivery model from vocational assessment to successful employment, including ongoing, individually initiated career development throughout the consumer's work life.

The format chosen for the written report can be varied. It should be written so that the reader will be engaged in the entire report and not skip to the recommendations. To accomplish this, the evaluator should be aware of the needs of the referral source and consumer. Earlier, the report was compared to a short story or novel, and this implies that the writer knows the ending before beginning. Knowing at the beginning what the recommendations are at the end will allow the writer to compose the bulk of the "story" to lead to the ending, or recommendations. The evaluator is responsible for interpreting the data and presenting it in a manner that is understandable and useable for the consumer and the referral source. To do so, the evaluator must provide professional interpretation of the data that includes future implications, options, and value related to vocational goals, not just numbers, standard scores and grade levels. To state that

a person has a fourth-grade mathematics computation level means little outside comparison to community college entrance requirements or job duties. Raw scores, charts, grade levels, and data can be attached for those who request it. Reducing the volume of data in the body of the report will increase the likelihood that every word will be read and used.

Certain items should be in each report, but the paper format is up to the individual evaluator, the referral source and the person being served. Always identify the evaluation agency, date, and persons involved. Five basic headings for an evaluation report are offered below.

### ***Services Provided***

This section should list the assessment tools, identifying what, exactly, was used to help answer the referral questions. They can be listed, without explanation, for most reports. For example: Self-Directed Search, Adult Basic Learning Examination, and Community Work Site Assessment. It should be assumed that each person would receive an individual interview, behavioral observations and ongoing discussion, although they, too, can be listed here.

### ***Identifying Information***

This section will include any pertinent information about the consumer and address any potential variables related to culture. The overall assessment services should have been tailored to accommodate cultural differences. Information related to career choices can be described here. This section may also include referral information, the reason for referral, education level and past work history. If duplicating information from another source, the confidentiality standards from that source would carry over to the entire report.

### ***Assessment Summary***

This is where the evaluator describes the results and interpretation of the assessment tools. There is no need to provide extensive charts and data. Provide information that relates to the conclusion and recommendations. For example, do not include 12 interest areas with standard scores unless there is a compelling reason. It would be more useful to provide the top one or two if they match the direction of the consumer, and maybe the one or two that should be absolutely avoided. If the assessment summary is too technical or difficult to understand, then empowerment is minimized. It is the interpretation of the data that is crucial, not the raw data or standard scores.

### ***Behavior Observations***

“You can observe a lot by just watching” (Berra, 1998). Critical observations can help a consumer become more aware of strengths related to potential employment. In this section, the evaluator should identify any observations that might be useful to the end results, or critical to recommendations or career path. This is not intended to be a step-by-step accounting of all the actions or behaviors of the consumer.

### ***Recommendations and Rationale***

Wrap up the data and turn it into useable information through the professional interpretation of the evaluator. If career options have not yet been identified in the report, they can be placed here. Tie up any loose ends and be sure all issues are addressed and all referral questions are answered. Include recommendations and potential choices for the consumer, referral source, and stakeholders. If not covered, this would be the place to include dream job, entry-level job, and intermediate options. Include information about the job titles, including as much detail as possible to identify specific jobs or job groupings, local availability, and any community contacts. If not already identified, include strengths, capabilities, and any potential adaptive tech-



Example of a picture graph:

Could represent number of new truck driving jobs by quarter over the last year.

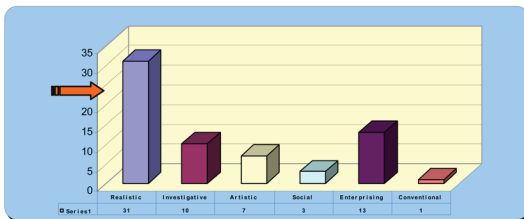


Chart highlighting self-directed search results

nology or accommodations that will assist the consumer in the career quest. The information in this written report may be critical for the consumer and counselor to use to develop life-long career plans. Recommended follow-up should be specified here.

The written report is a summary of the information provided to the consumer throughout the evaluation process. Having it in writing creates a reference document for the consumer to use for career planning by oneself, with rehabilitation professionals, and even with potential employers. Any modifications or accommodations used in the assessment should be identified and included in the report. Accommodations that prove useful in assessment can usually be used to assist in finding, getting and keeping jobs.

While the narrative report remains the standard method for communicating findings in VE, there is a growing interest in using and incorporating new technologies to improve consumer access, enhance collaborative efforts, and to include alternative and more empowering approaches to communicating assessment outcomes. The following sections will discuss the use of visual reports and portfolios in the VE process and new technological tools that can foster ongoing communication and sharing among consumers, vocational evaluators, VR counselors, and stakeholders.

## **Visual Reports**

This short section discusses ways to create a narrative report that is more user-friendly and engaging for the consumer. Samples of visual reports are included in the appendix. CARF requires evaluators to create written reports in an understandable manner for the consumer; however, many interpret this requirement to mean lowering the reading level. While lowering the reading level of the report may help, it does not get at the issue of engaging the reader and making the report a personal tool that a consumer may refer to regularly. Ideally, the report should “speak” directly to the consumer. Visual reports may provide a solution to this issue.

Simply put, a visual report is a narrative report that incorporates visual images such as pictures and diagrams to better engage the consumer and to help convey meaning. There are a number of ways to do this. Instead of reporting tables of data, the evaluator can convert that data into charts that convey the same information graphically without as many words. However, it should be noted that overuse of charts and graphs can have the same affect as a report filled with only numbers and data tables. The evaluator should explain the practical application (job search, interviewing, etc.) of the information in the chart. Inserting pictures of the consumer completing a specific work task can increase the personalization of the report. Adding clip art

and picture graphs such as the example above also add interest.

The evaluator could also use call out boxes to draw attention to a particular area of the report. In addition to charts and pictures, the tone or style of the report can also make it consumer-friendly. The assessment staff at the Alabama Department of Rehabilitation Services, Lakeshore Office in Birmingham, Alabama has created a visual report that not only includes charts and pictures but it also uses engaging language. Their report is a combination of similes and metaphors that create a very vivid and rich picture of the consumer (see appendix for sample). They also personalize the report by using the consumer's name throughout and in some cases, the report is written directly to that person. The evaluator also uses the consumer's name in the major headings of the report. For example, many evaluators would label the interest section as "Interest." The Lakeshore report labels it "John Doe's Vocational Interest." The report includes text boxes to draw attention to areas of particular interest and clip art to add emphasis. The report leaves no doubt that it is about and for the consumer as well as the referral source.

Visual reports do not require special skills to create. Creativity and a good software package will do the trick. Below are some software tools that might help in creating a visually exciting and engaging report.

As is so often the concern of vocational evaluators, moving from the technically written report to one that is reader friendly and engaging should not reduce the quality or value of the information. The visual report increases the likelihood that the counselor, consumer, and stakeholders read and use the report rather than file it away.

Software	Uses	Comments
Microsoft Word	Word Processing	Includes clip art, text boxes, diagrams, and drawing tools to create a visual report.
Microsoft Excel	Spreadsheets	Can be used to convert tabular data to charts and graphs. Can also insert graphics. Can export charts to word processor.

Software	Uses	Comments
Microsoft Publisher	Desktop Publishing	An excellent tool for creating and publishing projects. It can be used to create newsletters, flyers, and brochures. It can also be used to vary formatting.
Corel WordPerfect Suite	Alternative to Microsoft Office that includes word processing and drawing.	Software can do the same things as the Microsoft Suite. It includes desktop publishing, spreadsheets, and word processing.
Inspiration	Mapping and Organization Software	Allows users to create picture graphs in a friendly interface. Lots of templates built in to the software.

**Alternative Methods for Communicating Findings**

While the narrative report remains the standard method for communicating findings in vocational evaluation, there is a growing interest in using and incorporating new technologies to improve consumer access, enhance collaborative efforts, and to include alternative and more empowering approaches to communicating assessment outcomes. This section will discuss the use of portfolios in the VE process and new technological tools that can foster ongoing communication and sharing among consumers, vocational evaluators, rehabilitation counselors, and stakeholders.

**The Portfolio**

There are generally two types of portfolios: working and presentation. The presentation portfolio functions as a product while the working portfolio functions as a process. As a product, the portfolio is a purposeful, organized collection of artifacts/evidence used to demonstrate an individual’s competence, knowledge, or skills in a given area. It sums up the portfolio process and communicates outcomes (Kilbane & Milman, 2003; Wonacott, 2002).

As a process, the consumer collects, reflects, and decides on what to include in the portfolio. The collected artifacts, particularly in career portfolios, represent all aspects of a consumer’s career develop-

ment including self-assessment, goal setting, skills identification, getting/ keeping work and lifelong professional development (National Life Work Center, 2002). It also incorporates the use of high-level cognitive processes such as decision-making, comprehension, analysis, synthesis, evaluation, and application (Cox, 2001).

Portfolios used in VE serve as both process and product; a place to store relevant career information and data about self and a tool to highlight and showcase strengths skills and abilities related to an occupational area. It is a comprehensive informational and planning document.

### ***Benefits of the Portfolio***

Although consumers of rehabilitation services possess many skills, they often have a difficult time identifying or describing them. Furthermore, they often underestimate the relevancy of their skills and are passive in their own career development. Portfolios enable consumers to regain or take control of their career development and to function as a partner in VE rather than the object of the process. The primary benefit of portfolio development is its emphasis on reflection and self-assessment. “Without reflection, the portfolio remains merely a folder of papers.” (Santos, 1997, p. 10)

Because of the emphasis on reflection, portfolios in VE can foster empowerment, improve self-efficacy, and help consumers to better understand themselves and their abilities. The consumer drives the portfolio development process and is responsible for documenting artifacts. Through portfolio development, the consumer is able to make the connection between personal knowledge, skills, abilities, and the requirements of their career choice (Ezell & Klein, 2003; Wonacott, 2001; Hester & Baltrukenas, 1995; Brown, McCrink & Maybee, 2003).

For the evaluator, portfolios centralize key career documents and information about a consumer. It can be updated regularly as the consumer gains new skills, takes more classes, or accomplishes career goals. The portfolio can be valuable in helping the evaluator and VR counselor monitor a consumer’s progress over time.

Portfolios also have the potential to increase collaboration among team members. For example, in order to update work experience, the evaluator must communicate with the counselor or job coach. To document improved workplace readiness, the evaluator might communicate with the job skill instructor. Portfolios can pull the evaluator out of isolation and into an active, integral role on the rehabili-

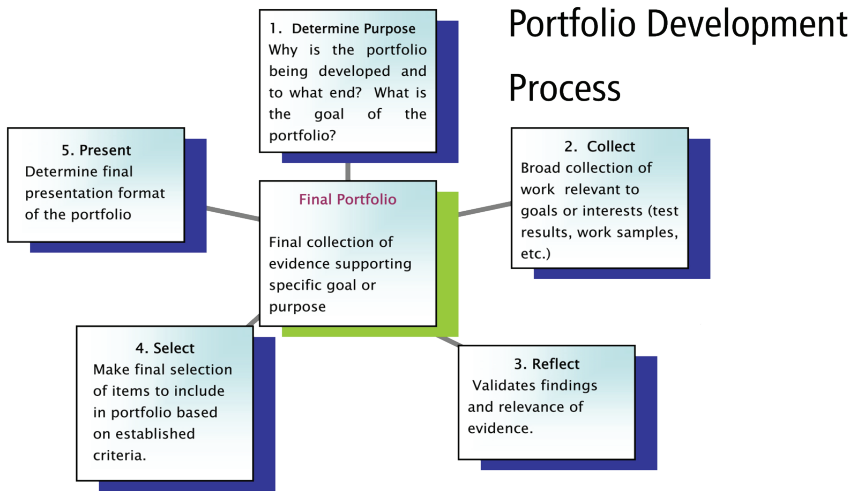
tation team. Additionally, evaluators can give outside activities that make the assessment process more meaningful for the consumer. For example, a consumer might be asked to interview working family members to understand the paths they took to accomplish their career goals. To assess consumers' understanding of their career related skills, the evaluator could have them review want ads for jobs that fit their current skill level. While all of these tasks could be completed with or without a portfolio, the portfolio helps to create a more holistic picture of the consumer's skills and integrates all of the pieces seamlessly. Used consistently and thoughtfully the portfolio can develop into a dynamic career management tool that an individual can use over a lifetime to help make a successful life/work transition (National Life Work Center, 2000; Szymanski, 1999).

### ***Integrating Portfolios into Vocational Evaluation***

The figure below illustrates the steps in traditional portfolio development. Integrating portfolios into VE is a simple process. The current framework for providing VE services lends itself to increased consumer involvement. With slight changes in process and the deliberate integration of personal reflection, portfolio development can become an integral component of VE. The purpose of VE easily becomes the purpose of the portfolio, which is to help consumers achieve the following:

- Identify their unique strengths, resources, priorities, concerns, abilities, capabilities, and interests.
- Make informed choice career decisions.
- Develop a plan to prepare for, secure, retain, or regain an employment outcome that is consistent with the individual's strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice.

There are a number of ways to integrate portfolios into VE. From the first meeting, evaluators can engage consumers by doing a complete orientation to the assessment center and informing them that the process is about helping to identify strengths, needs, and long-term, feasible career goals. The evaluator can then distribute portfolios with all required forms for reflection and documentation. This lets the consumer know that their active participation in the evaluation is not only expected but also valued. Using a tool such as the KWL (K = what I know about myself, W = what I would like to learn



*Adapted from Kilbane & Milman, 2003*

about myself, L = what I learned about myself) can help consumers to begin thinking immediately about themselves and their level of self-awareness (see appendix for sample form). Once the consumer has completed the first two sections of a KWL, evaluators have essential information up front to individualize and facilitate the evaluation. The consumer or evaluator records the information on a KWL form and adds it to the portfolio. The form is revisited throughout the evaluation process as the consumer records new information in his or her own words. As a consumer completes post-task reflections recording preferences and levels of difficulty, self-awareness grows throughout the evaluation process. Having consumers summarize information in their own words is another way to check for understanding and for the evaluator to ensure that he/she is using language understood by the consumer.

Videotaping and photographing activities or work sample products provides an opportunity to document and validate workplace behaviors and specific skills demonstrated by the consumer. Consumers decide which video clip or picture they would like to include in the portfolio, record reasons for their choices and how those artifacts relate back to their interests, skills, or goals. For building electronic portfolios, (explained later) digital cameras and camcorders are the better choices.

Discrepancy analysis or a side-by-side comparison of individual profiles to the profile of a desired career or job is a powerful way for consumers to see where there are matches and where there are not.

Consumers begin to make the connection between their skills and abilities and the requirements of the job or career of interest. They then work with the evaluator to devise a plan to resolve discrepancies with the career options of most interest. When consumers discover major discrepancies between their profiles and the careers of choice, they must determine the feasibility of their career goals.

Perhaps the most powerful way to have consumers internalize and own the information gained through evaluation is to have them present their portfolios and run their own post-assessment/planning meetings. Consumers should be able to discuss their strengths, goals, support needs, and plans to achieve career goals independently. These simple additions to the assessment process create a model that fosters empowerment, ownership, and active engagement of the consumer.

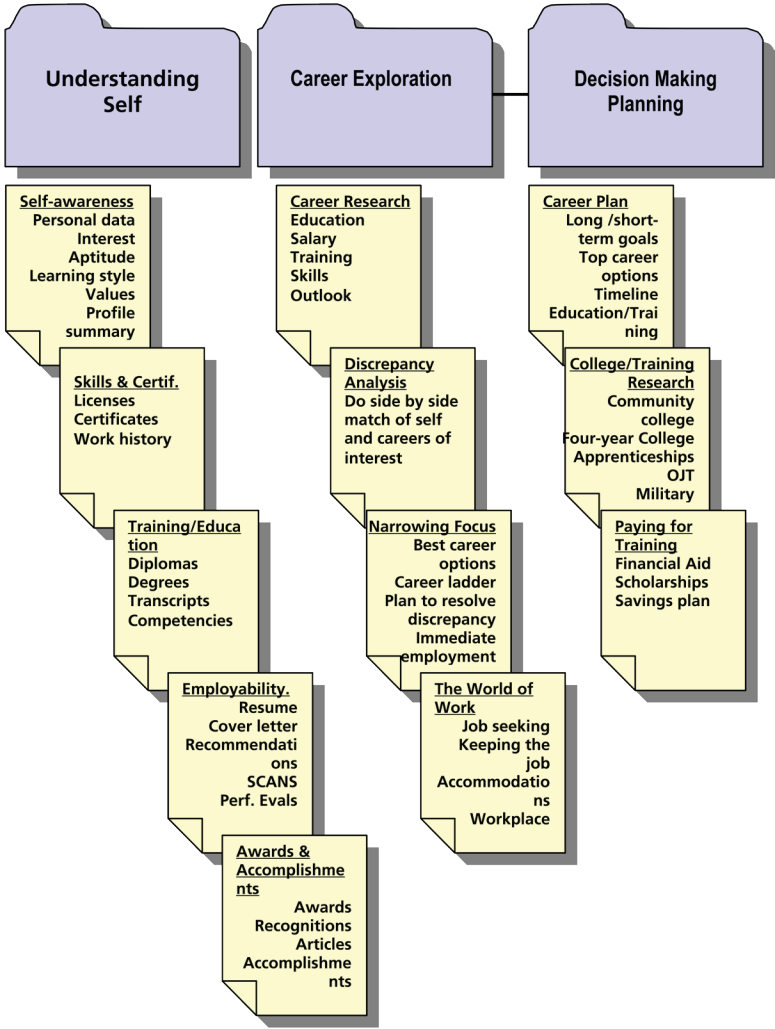
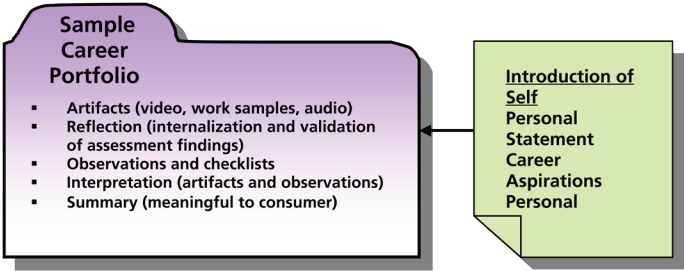
### ***Portfolio Development Structure and Content***

The basic structure of the career development portfolio should be logical and easy to follow from beginning to end. While it should be individualized and flexible, consistency in structure is needed to ensure ease in use. There is a great deal of variance in thinking about the framework of portfolios. However, goals and purpose should drive the structure. In VE, the purpose of the portfolio is two-fold: 1) to aid in career development/planning and 2) achievement of career goals and/or employment. Although some portfolios are structured around themes and questions, a standards-based format appears to be best format for the career development portfolio. A standards-based portfolio clearly shows a relationship between the standards or goals, artifacts and reflections. The consumer's reflections provide the rationale for inclusion of specific artifacts as evidence of achieving the stated standards or goals (Barrett, 2001).

The Secretary's Commission on Achieving Necessary Skills (SCANS) employability competencies (U. S. Dept. of Labor, 1991) and the National Occupational Information Coordinating Committee (NOICC) National Career Development Guidelines provide an excellent set of standards for the career development portfolio. They lay out specific competencies for career development and employability that can easily be incorporated into the assessment process. In addition to using established standards, some evaluators/systems use locally established competencies and standards. For example, Florida State University's career center conducted surveys to determine the employability skills that employers thought were most important. They utilized employer input to validate and establish standards for

parts of their portfolio system (Barrett, Carney, McCoy & Wieseman, 2004; Cambridge, Kahn, Tompkins & Yancey, 2001). Syzmani (1999) suggests a portfolio structure designed to enhance career resilience for persons with disabilities. Suggested sections include the following: 1) current knowledge and skills; 2) future goals and required knowledge, skills and experience; 3) plan for acquiring necessary knowledge, skills and experience; and 4) stress analysis and prevention. These are just a few options for framing the final portfolio.

Once the structure/framework of the portfolio has been established, the next step is to determine the content. According to Barrett (1997), all portfolios should have a goal statement, guidelines for selecting material, personal reflection, work samples, and evaluator feedback. Some suggested artifacts for the career development portfolio include the results of occupational searches, aptitude and interest assessments, sample applications, evaluation results and feedback, career plans, post-secondary financial aid research, academic transcripts and certifications. The employability section might include items such as a resume, samples of work demonstrating skills, competency checklists, results of performance assessments and certifying exams (Wonacott, 2001; Cox, 2001). A portfolio's true value is dependent on its artifacts or contents. The artifacts included in a career portfolio should reflect the individual's unique interests, skills, talents, and abilities. The sample portfolio structure provided (see next page) incorporates both career development and employability components in one place. Using the NOICC stages of career development as the framework, employability competencies are easily integrated into the appropriate section. While the portfolio included is comprehensive, it is only a sample. Not all portfolios will need to contain all sections listed. This structure is for illustration purposes only.



## **Portfolio Formats**

The career development portfolio can take on many forms. The most popular format is the hard copy or paper portfolio

### ***Paper***

Paper portfolios come as binders, accordion style folders, envelopes, boxes, crates, scrapbooks, etc. The key however, is to utilize a container that is sturdy and that can withstand a great deal of wear and tear as the portfolio will be subject to significant handling. The portfolio should have ample storage space for audio and videotapes, which tend to be bulky and difficult to store. Forms created to summarize reflections and artifacts provide an additional option to save space if the consumer stores bulky artifacts separately. Using scanned pictures or digital cameras allows easy integration of graphics with text. Finally, for ease in presentation, consumers should maintain two portfolios. One portfolio contains the complete collection of documents while a smaller, more concise portfolio is for presentation purposes.

While paper portfolios tend to be relatively inexpensive and easy to use, storage becomes a major issue. They do not capture the interpersonal and communication skills or the dynamic aspects of an individual. An excellent alternative is the electronic portfolio.

### ***Electronic portfolio***

The electronic portfolio or e-portfolio is similar to a hard copy portfolio except that the contents are presented using electronic/digital media. The e-portfolio allows the developer to collect and organize portfolio artifacts utilizing media tools such as video, audio and graphics (Barrett, 2001). The e-portfolio has become the popular alternative to the traditional paper portfolio because it offers more flexibility in presentation and enables one to view its content in a seamless, easy-to-use interface. Without the bulk of hard copy portfolios, electronic portfolios are easier to review and share information with stakeholders and others.

The e-portfolio creates a 3-dimensional picture of the individual that is not always possible with paper. For example, not only can an individual include a resume in his/her digital portfolio, but he/she can also add streaming video to show skills, and add audio to explain. This can be especially helpful in VE. Many times the evaluator sees a different side of the individual who is participating in VE than is typically seen in other situations (home, counselor's office, workshop,

etc). For example, the consumer who has little self-confidence and is unwilling to take risks or try new things might be willing to take risks during the VE. He/she might be willing to try a fiber optics work sample, a three-way switching project, or other activities he/she might not ordinarily try. A narrative report or written observations will not capture this fully and adequately. That assessment situation recorded and uploaded to an electronic portfolio on the web as an artifact, is much more dynamic when viewed in live action. As the saying goes, “a picture is worth a thousand words.” A live action picture with audio is probably worth a lot more.

### ***Hardware And Tools For Electronic Portfolios***

To get started with e-portfolios, some decisions will have to be made around software and publishing formats. Below is a short list of tools that might be needed

- CD Burner
- DVD
- Computer
- Scanner
- Internet access
- Digital video camera
- Local server
- Web page
- MS Power Point
- Adobe Acrobat
- MS Word
- HTML editing software

Consumers, evaluators, and rehabilitation professionals do not have to become Web developers or expert software developers to create e-portfolios. There are a number of commercial tools on the market that make the development and use of e-portfolios easy. In some cases, all one has to do is complete an online form and click submit. Popular Web editing tools such as Dream Weaver and Front Page utilize an interface that resembles word processing, resolving some of the anxiety associated with Web development. Individuals can also create e-portfolios using Microsoft Word, Excel, and PowerPoint. Each of these applications allows a person to save the document as a Web page and upload it to a Web space. Making decisions around artifacts and structure is perhaps the most time consuming part of developing an electronic portfolio. The electronic media simply becomes the container that holds the evidence. See the appendix for screen shots of

an e-portfolio prototype in development by the Community Preservation and Development Corporation in Washington, DC.

Dr. Helen Barrett, a well-known expert in electronic portfolios, created an extensive list of vendors and resources for e-portfolio development on her Website. The site contains resources and additional information on creating e-portfolios. The site is accessible at [www.electronicportfolios.com](http://www.electronicportfolios.com).

### ***Benefits of Electronic Portfolios***

**Minimal storage space** – Unlike bulky paper portfolios, e-portfolios are stored on a hard drive, server or disk, which require very little physical space.

**Easy to create backup files** – Because of the use of original material, paper portfolios have a greater risk of being permanently lost as a result of time or ruin. To back-up a hard copy portfolio, one would need to make at least two or three copies to ensure back up. This could create an unmanageable situation. Back up for e-portfolios, on the other hand, is usually just the click of a mouse. While data loss is possible, it is much easier to keep multiple copies.

**Portability** – E-portfolios are easier to transport than paper portfolios. Floppy disks, USB drives, CD-ROMs or wWebsites require little or no physical storage space (files with considerable graphics require significant virtual space).

**Long shelf life** – Not only do e-portfolios have a longer shelf life because of technology, they are less likely to become dated because of the ease in updating.

**Increases technology skills** – Because creating an e-portfolio requires basic computing skills, consumers are able to increase their individual technology skills.

**Accessibility** – Because digital formats can be reproduced quickly, cheaply and with relative ease, it is easier to reach a wider audience than with the traditional hard copy formats. Additionally, by using accessible Web development standards (Architectural and Transportation Barriers Compliance Board Electronic and Information Technology Accessibility Standards, 2000), one can create portfolios that are accessible to any person with a disability and have them available 24-hours a day.

Although initially the e-portfolio appears to be a major undertaking, the result is something that is well worth the effort.

## **Communicating Findings through Electronic Collaboration**

With the advent of new Web enabled collaboration and conferencing tools, it is much easier for evaluators, counselors, consumer, and other stakeholders to have better and ongoing communication. These new tools make it easier to create teams and work together virtually without being in the same room or geographical location. E-collaboration tools as they are sometimes called enable all members to share documents, meet online in a common space, hold online video conferences, create common calendars, and even continue a discussion from a meeting through shared discussion boards. This all happens in a shared workspace via the Internet. These new technologies can be invaluable to the rehabilitation process. For individuals with mobility issues, E-collaboration tools enable them to attend and participate in a meeting with their counselor and evaluator without ever having to leave their home. Not only are they able to participate in the discussion in real-time, but they can also review documents (their report or portfolio) live as if they were physically present. Additionally, an evaluator can post a report for review and input by all team members, prior to a face-to-face meeting, thus reducing the time needed for revisions.

While email and shared drives on local and wide area networks have revolutionized communication, true collaboration through these means has been a challenge. Individuals who are not part of the organization rely on e-mail for document sharing. Additionally, online discussions and document review through email with its multiple replies back and forth creates a choke on the system and the potential for document corruption and lost data. Tools designed specifically for online collaboration such as Webex, Groove, Share Point and others (see appendix for brief descriptions) create a common work and communication space on the Web, thus eliminating the drain on the local system.

For example, if an evaluator wanted feedback on the recommendation section of a report, he/she can upload it to the shared site and permit others (counselor, consumer, and other stakeholders) to have access to the document and provide feedback. Team members provide feedback, and they save their document in the shared space. The system notifies the evaluator by e-mail of updates and of who has reviewed the document. Because geographic distance is no longer an issue with Web collaboration tools, a community of evaluators

across the world can share resources, utilize peer review for reports, and develop online communities of practice. Online collaboration can bridge the divide between rehabilitation counselors, consumers and their advocates.

The benefits of using an online collaboration include

- Elimination of time and geographical barriers,
- Creation of communities of practice
- Provides time for reflection through discussion boards
- Improved collaboration and teamwork between VR counselors and vocational evaluators.
- Elimination of e-mail overuse
- Ease in distribution of important documents
- Twenty-four hour access

Incorporating online collaboration and conferencing tools to enhance communication between the VR counselor and vocational evaluator makes sense. (Koufman-Frederick, Lillie, et al, 1999)

## **Conclusion**

In discussing the communication of vocational assessment and evaluation findings and outcomes, this chapter included traditional as well as non-traditional methods. Whether using one or a combination of these methods, the documentation of the vocational assessment and evaluation process must be meaningful and have direct applicability for the consumer. The overarching theme that spans the entire chapter deals with a strong partnership between the consumer and the other members of the multi-disciplinary team. This partnership serves to inform and empower the consumer to participate fully in deciding upon and achieving a positive vocational outcome.

Those professionals involved in conducting vocational assessments and evaluations must consider how findings and outcomes of the process are communicated. Is there a better way to do so that contributes more useful information and a greater degree of empowerment for the consumer? Non-traditional and traditional methods of reporting findings and outcomes can be considered complementary. However, there is considerable merit in utilizing more of the non-traditional portfolio technique that is consumer-controlled and has

far-reaching implications and utility well beyond the completion of the vocational assessment or evaluation. Likewise, there is some merit in choosing the more traditional report method. In determining how findings and outcomes are communicated, we must carefully consider the purpose of such communication. Since the primary purpose includes consumer empowerment as a focus, then it is likely that at least some aspect of the portfolio technique must be included. As the success of the vocational assessment and evaluation process depends upon the utility of the information obtained, it is up to professionals to expand traditional thinking and consider viable alternatives to assist the consumer to achieve such success.

## Self-Study Questions

1. The optimal assessment results would help match a person to a career consistent with the person's strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice. In the written summary of assessment findings, how can empowering options be assured?
  - a) By being sure that the vocational options in the written summary include identification and investigation of a dream job, an entry-level job, and an intermediate job.
  - b) By making sure the consumer has a copy of the report.
  - c) By sharing the report with potential employers.
  - d) By never including any significant barriers to the consumer's stated goals.
  - e) All of the above
2. The written report is a summary of the information provided to the consumer throughout the evaluation process. What are some benefits for having the summary in writing?
  - a) It creates a reference document for the consumer to use for career planning.
  - b) It can be used in a personal portfolio.
  - c) It can demonstrate abilities to prospective employers.
  - d) It can help the consumer feel empowered.
  - e) All of the above



## **Chapter Eight**

# **Promising Practices of Vocational Evaluation and Career Assessment**

Vocational evaluation (VE) is used by public vocational rehabilitation (VR) agencies to varying degrees and in a variety of settings. For example, Maryland uses community rehabilitation program vendors and the state operated comprehensive rehabilitation facility to provide VE and career assessment services. Oklahoma, Kansas and North Carolina, among others, use a blend of state agency staff supplemented through approved vendors to ensure the availability of appropriate services. Virginia and South Carolina predominately use state agency staff to provide career assessments for VR consumers.

This chapter will highlight promising practices for VE and career assessment in four state public VR programs. Most of these states have revamped their VE and career assessment programs to incorporate the emerging paradigms; empowerment, universal design, culture and individualization. The chapter will highlight an intensive service model that integrates VE and assistive technology (AT). The driving force behind the revamping of the VE programs appears to be the VR agency's need to implement the informed choice component of the reauthorized Rehabilitation Act of 1992, the requirement to in-

clude assistive technology considerations throughout the VR process (Ashley and McQuire-Kulitz, 1999a; Thomas, 1999) and pressure on agencies to “downsize” due to budget constraints (Ashley and McGuire-Kuletz, 1999b; McGuire-Kuletz and Ashley, 2001).

The models presented in this chapter have several elements in common. These include:

- soliciting input from a variety of stakeholders including VR counselors, service providers (either agency staff or CRP staff) and administrative staff in the redevelopment of the service model
- a long term implementation process with a built-in review mechanism
- modification of the vocational evaluation report to be more customer friendly
- implementation of a continuous quality improvement process
- an inclusion of assistive technology assessments as part of the vocational evaluation and career assessment process
- placing reports in the hands of the consumers and making promoting empowerment and personal responsibility easier to understand

Vocational evaluation services in all states referenced reported greater flexibility in the evaluation process, more service options for consumers, and increased use of community-based activities. Although traditional assessment strategies and commercially available work samples are still a part of the process; there is more emphasis on tailoring the service to the individual customer based on the information needed for career planning. Community evaluation options and hands-on work samples seem to be more prevalent.

The desire to better integrate the VE and career assessment process into the VR process is a part of all of the models. In Virginia, the push was to ensure that VE staff was involved in the beginning, middle and end of the VR process. In Maryland, the focus was to enhance the available services and provide the information needed by VR counselors for program planning. In Kansas the focus has been to enhance the career options identified for program planning. All the models

focused on providing information to consumers and referral sources that will address the increased emphasis on quality employment outcomes for persons with disabilities. This has been implemented by increasing the communication between the consumer, the evaluator and the VR counselor. Virginia vocational evaluators added performance measures that include consultations and staffing participation. South Carolina created teams that included the Career Planning and Employment specialist, VR counselor and other key staff to ensure that needs for evaluation and analysis of occupational information were considered at any point in the rehabilitation process. These efforts are designed to ensure better communication on the appropriateness of referrals, information needed for career planning, and alternative processes to provide the information. The enhanced communication ensures that services needed to address referral questions are more available by matching service levels to consumer needs.

A common theme across the four states reviewed is that of the importance of the referral questions from the VR counselor. There seems to be tremendous emphasis on the VR counselor's providing clear questions that ensure that the consumer obtains the appropriate assessments and information needed for career planning.

The models reviewed are at various stages of implementation. Some, such as Kansas and Maryland, have well defined program evaluation components. All have CQI feedback loops to promote program enhancement. The state models provide an example of modifying service delivery systems to integrate the services into local offices or regions and to provide more community-based assessments. The intensive service model highlights the development of an integrated VE and AT assessment to address the career assessment needs of individuals with significant disabilities.

This chapter will also identify program evaluation protocols for one of the state models to highlight the importance of including sound program evaluation processes as a part of the services provided. The 14<sup>th</sup> Institute on Rehabilitation Issues, *The Use of Vocational Evaluation In VR*, suggested that the quality of outcomes from assessment must be viewed in relation to the stated purposes, questions or objectives for the evaluation. Generally, the fundamental purpose of VE is to enhance meaningful decision-making for a person's rehabilitation and employment options. The value of the VE must be judged in relation to how relevant the information is to accessing the appropriate and optimal employment options for the individual. Ultimately, the

VE should have an impact on decision-making, planning, selection and delivery of rehabilitation services. If we accept the premise that evaluation is more than an information collection process, VE can also be expected to have measurable gains for both clients and the rehabilitation process (Fourteenth Institute on Rehabilitation Issues, 1987, p82).

The Fourteenth Institute on Rehabilitation Issues suggested that long-term system gains should be evidenced if VE recommendations are, in fact, appropriate and are incorporated in the planning and delivery of rehabilitation. Each assessment program should focus directly on its own accountability and program evaluation. It is imperative that vocational assessment programs have a complete and viable system to measure standards for achieving quality outcomes, also known as program evaluation. A strong system will include efficiency and effectiveness measures, but also address satisfaction of the consumer and counselor, as well as being certain to measure the immediate and long term outcomes of the vocational assessment program.

### **The Kansas Model**

Prior to 1998, the state of Kansas operated three separate facilities which provided vocational assessment services. The Kansas Vocational Rehabilitation Center (KVRC) served primarily persons with mental and physical disabilities, while the Vocational Rehabilitation Unit (VRU) primarily served people with developmental disabilities, and the Rehabilitation Center for the Blind focused on persons with visual impairments. The feedback from the people served was that the services were valued, empowering, and useful, but traveling and staying away from home was a hardship. Consumers wanted to keep the vocational assessment services available, but they wanted them provided closer to their home communities. Although the facilities had residential accommodations, nursing, psychologists, and medical professionals available, the consumers preferred established support systems in their home communities. While Kansas does maintain the Rehabilitation Center for the Blind and Visually Impaired, the other two facilities were closed and the resources distributed across the state in community-based Career Development Centers (CDCs). The Vocational Evaluation Program provides services throughout the State via offices in each of the eleven SRS Areas. Each of these centers is responsible for a geographic area of coverage to ensure assessment services are available statewide either directly or in partnership with

private providers. The arrangement takes the services reasonably close to the consumer's home community. The CDCs collaborate with community partners for medical, psychological, and residential needs as they are staffed with professional evaluators and in most instances support staff.

## **Individualized Services**

Kansas Rehabilitation Services (KRS), is committed to vocational assessment. This Kansas model is an example of individualized, person-centered, empowering assessment for all persons. Career Development Centers are strategically located to allow service and program accessibility across the state. The CDCs are staffed with VR personnel. Services are primarily delivered to VR clients, but in cooperation with other social and rehabilitation service agencies, assessment is also available to non-VR clients. It is critical to note that the assessment process is the same for all persons seeking knowledge about vocational options, including persons with severe disabilities and those with no identified disability. Assessment is available for persons receiving Temporary Aid to Needy Families (TANF) through a Memorandum of Understanding.

Kansas, like many states, is in an Order of Selection where the persons with the most severe disabilities are served first. Some counselors use the vocational assessment to help identify the category in the Order of Selection criteria; some use it to help determine eligibility (although with presumed eligibility this is used less and less); many use assessment to help develop an Individualized Plan for Employment (IPE) with the person receiving services.

The assessment process follows basic guidelines and each person receiving services has an individualized evaluation plan. This plan is developed using the referral questions as well as input from the individual receiving services. The plan identifies what the questions are, as well as who, when, and how they will be answered. It is a flexible plan that can be modified with input from the consumer. Because so much of the evaluation plan is based upon the questions asked on referral, vocational assessment is allocated a three-hour block in the training modules for new counselors when they join KRS. The new counselors are taught the value of assessment as well as the critical importance of asking specific referral questions.

The tools used to complete each vocational assessment are dependent upon the referral questions and the individual being served. The

assessment schedule does not end until the questions are answered. Depending upon the person and questions, this can take hours, days, or weeks. The current state average assessment takes just under 14 hours. Because the schedule is flexible and individualized, this could be done over a period of several days. Tools available to the evaluator include behavior observation, interest inventories, achievement tests, aptitude tests, computerized job match, work samples, rehabilitation engineering, AT, situational assessment, and community-based work assessment. Through state consultants or private vendors both psychological and medical assessments are also available if needed. The choice of tools is determined by the evaluator with input from the person being served and the referral source, and is dependent upon the questions asked.

The end result of the vocational assessment process is that the person being served and the referral source have a better idea of the potential job and career opportunities in the world of work. Each assessment should offer a minimum of three target opportunities with the person being served – a dream job, an intermediate job, and an entry-level job. The person served should have information that will allow informed choice including those options and steps to achieve each. A dream job often requires training, education, and/or certification beyond the current level, but also could represent a long-term career goal. An entry-level job would provide the option for work and more immediate income if that is the person's choice. The intermediate job usually represents something that would take some education or training and is a step toward the dream job or career goal. By providing this information based upon the results of the vocational assessment, the person being served can be empowered to make an informed choice about a job and a career. (Ahlers 2002)

### **Program Evaluation**

The expected outcome of assessment is that the person receiving services and the referral source will receive information that will identify vocational options to help them develop a vocational plan. Feedback forms are given to each person who has received services. They contain four statements:

1. The assessment results were helpful to make some decisions about work options.
2. I learned about myself as it relates to job options.

3. Options were explained to me in a way that I understand.
4. Overall, I was generally satisfied with the assessment services.

The format allows for explanations for each answer. Similarly, the referral source is asked to affirm or negate:

1. The assessment results were helpful to make some decisions about work options or to develop a vocational plan.
2. I felt I was informed throughout the assessment.
3. The assessment answered my questions.
4. Overall, I was generally satisfied with the assessment services.

All completed feedback forms are routed to a Central Office staff member who is responsible for statewide program evaluation. Monthly, these forms are copied and routed to the appropriate supervisor, who uses the data for individual performance counseling, program changes, and planning.

Statistical reports are compiled by Central Office staff and shared quarterly with all staff and stakeholders as part of the Management Information System (MIS). This information is intended to provide snapshots of the CDCs and data to trigger changes in program services. Program data is analyzed and provides the foundation to drive the planning for program management and service delivery. It is these data that tell us if the programs are indeed being effective.

The Standards for Achieving Quality Outcomes system is formally reviewed annually by the management team. This provides opportunity for improvement in the system for the upcoming fiscal year. The intent, methods, and procedures are reviewed with program staff for input, and then evaluated by the management team to recommend changes and ensure that the system is itself effective in identifying information useful for program planning (Ahlers, 2003).

This information is used to modify the service delivery to meet the needs of the persons receiving services and the referral sources. It provides information to the evaluator, supervisor, referral source and management team about the satisfaction levels as well as outcome achievement for each person served. Collectively, this information is used to drive program and individual changes in service delivery.

## **The South Carolina Career Planning and Employment Services Model**

The South Carolina Vocational Rehabilitation Department (SCVRD) has a long history in the utilization and delivery of VE services in their statewide network of 23 area rehabilitation offices and centralized comprehensive center located at the main state office complex. Strategic planning initiatives undertaken by SCVRD have carefully looked at all agency services and staff positions and resulted in an internal re-engineering that changed the roles and functions of most staff positions through an overall move to a more team-based service delivery structure. Included in this process was a thorough analysis of the VE and adjustment service activities. This inspection focused on determining the value of VE and adjustment services in helping clients reach successful employment outcomes. Preliminary indications were that existing VE services were not responding to individual consumer needs as much as was needed, nor were they providing counselors with the information they felt necessary to develop effective rehabilitation plans. Previous practice relied primarily on psychometric test scores, work sample results and general occupational information to formulate vocational recommendations. Factors such as transportation, community living needs, availability of support networks, and issues of security and safety were frequently not addressed adequately in the assessments. The evaluation report also seemed to be viewed as the ultimate goal of the evaluation, rather than individuals' becoming successfully employed.

Recommendations were made to better integrate vocational assessment and adjustment service activities into the new rehabilitation team structure that was being implemented. At the same time it was determined that a shift to more community-based work experiences would help to better focus assessment and job readiness preparation on employment outcomes. This change was strongly reinforced with the directives in the Rehabilitation Act Amendments of 1998 that stressed the importance of community-based assessment and greater involvement of consumers in the assessment process.

### **Underlying Goals and Objectives**

As the Career Planning and Employment (CPE) concept began to take shape, the following key assumptions, goals and objectives were identified.

- Vocational assessment services should be individually planned

based on consumer needs; not driven by assessment systems or standardized assessment protocols.

- Vocational evaluations should focus more directly on employment-outcomes.
- Standardized testing is an important assessment tool, however it should not be an automatic first step in the assessment process.
- The primary emphasis of vocational assessment should shift from a laboratory assessment to community-based employment activities.
- Increase the use of existing referral information and previous test results to reduce or eliminate the need for additional testing.
- Modify the duties and responsibilities of the old vocational evaluator positions to create new career planning and employment specialists who are active members of the rehabilitation team in each rehabilitation office.
- Increase the flexibility of the process to easily adapt to individual needs, particularly for persons with severe disabilities.
- Develop working partnerships with employers to create the opportunities needed to provide community-based assessment and other work experiences throughout the state.

## **Vocational Assessment and Career Planning**

All individuals in career planning who go through SCVRD are involved. The CPE program provides a flexible array of resources and services tailored to the unique needs of each individual toward making informed, sound vocational decisions. Vocational assessment, when needed, is one of the services provided by CPE specialists. A “standard” VE protocol no longer exists. Consumer choice plays the major role in deciding what takes place in the vocational assessment. Typically, vocational assessments are provided during extended evaluation (Status 6) or in plan development (Status 10), however they can be provided later in the rehabilitation process, frequently in the placement phase (Status 20/22).

Assessments can last from one-to-two days up to two weeks or

longer. Individuals with more severe disabilities are likely to need more intensive vocational assessment and may spend more time in employment preparation classes. For individuals with only limited vocational impediments the duration of their assessment can be as little as two to four hours. For all individuals, such as employees with disabilities who may be involved in only job retention services, this range of assessment options and employment-oriented classes provides counselors with the flexibility needed to develop truly individualized rehabilitation plans. CPE staff may set up community trial work experiences needed to accurately determine whether someone is able to work and could benefit from VR services, or provide an array of vocational assessment options for eligible clients to assist them in determining an appropriate vocational objective and to identify service needs prior to plan development. CPE staff also work with counselors to provide occupational information and further vocational assessment when there is a need to modify existing individual employment plans due to changes in the client's situation.

### **Implementation of the CPE Program**

When CPE program was implemented on a statewide basis, existing vocational evaluation and adjustment staff positions were converted into approximately 40 Career Planning and Employment specialist positions. Position descriptions were written that structured assessment and job preparation activities primarily around community-based work experiences. This change required the new CPE specialists to physically shift much of their activity from evaluation labs and rehabilitation center settings into the community using local employer worksites. The roles and responsibilities of CPE specialists vary somewhat depending on the size of area rehabilitation offices. In larger offices staff are able to specialize more, while in smaller offices CPE staff must be more flexible and able to take on varied responsibilities. This was necessary to ensure that comparable services be offered in all parts of the state.

The new CPE staff had to assume different roles and responsibilities and learn how to use community-based work experiences. The shift in roles and responsibilities extended beyond the former vocational evaluators and adjustment service specialists to include psychologists within each area rehabilitation office, who were now part of the new CPE program. Psychologists became much more actively involved as part of the rehabilitation teams in their goal of helping

clients reach successful employment outcomes. As a result, psychologists now do less formal psychological testing and focus more on actual vocational assessment and vocational skill development, such as teaching disability-related classes including anger management and stress management.

Job coaches, who have been part of SCVRD staff since the mid-nineties, also became part of the CPE team. Job coach services are also contracted through other programs such as Mental Health. Job coaches handle supported employment cases and also share some of the guidance and supervision responsibilities for the trial work experiences, job shadowing, job mentoring, and job tryout services.

The Area Rehabilitation Supervisors have overall responsibility for all rehabilitation services and provide direct supervision of VR counselors. Moving the CPE specialists under the Area Rehabilitation Supervisors has created increased visibility of vocational assessment services in the rehabilitation process and facilitated more direct involvement of CPE staff in rehabilitation team activities.

## **Community work experiences**

One of the major changes for VE has been a shift to using more actual community work experiences rather than relying primarily on testing, work samples, or situational assessments in the rehabilitation centers. With this change, the VR program assumed responsibility for worker compensation, wages and other liability issues that could be involved in working with employers. When SCVRD began paying clients directly and assumed worker compensation liability for all client-related activities, recruiting employers became easier.

There are five main ways that work experiences are arranged with local employers in the communities throughout the state:

1. **Trial Work Experience:** Actual community-based experiences used to determine if an applicant's disability or disabilities are so severe that the individual would be unable to benefit from vocational rehabilitation services in terms of an employment outcome. The individual is placed on a job in the community and supports are provided as needed. These supports may include job coach intervention and rehabilitation technology. The job is typically unskilled and with few physical demands. If an individual is unsuccessful on at least two Trial Work Experiences, her or she is referred to other appropriate programs or agencies. (usually one day or less)

2. **Job Shadowing:** Job shadowing is a tool used to help clients do self-assessment by observing workers at actual employment sites under the guidance of a CPE specialist. Job Shadowing is frequently one of the first activities used to help consumers verify occupational interests and vocational preferences. If an individual likes a particular type of work, additional work experiences such as job tryout can be arranged. It is possible for clients to participate in multiple Job Shadowing experiences to assist in making vocational decisions. (minimum 2 hours up to a maximum of one full day)
3. **Job Mentoring:** Employers willing to work with individuals can agree to have one of their staff spend time with the individual. This option is used less frequently than job shadowing or job tryout, however it does provide a useful resource for a client that would like to gain a better understanding of a particular job. Job mentoring provides the client with limited hands-on experience under the guidance of someone that the employer designates as the “mentor”. (minimum one-day up to a maximum of 10 days)
4. **Job Tryout:** For individuals who are interested in a particular position or area of work, Job Tryout provides the opportunity to experience first hand actual work demands and the working conditions. This also exposes individuals to actual situations with co-workers and supervisors to better determine how well they can deal with work in the community. The tryouts typically last for no more than a few days. Employers sign an agreement to arrange for the tryout that explains that there is no obligation or expectation to hire the individual. The VR department assumes worker’s compensation responsibility for the individual and pays the individual for their time during the tryout. (minimum one-day up to a maximum of 10 days)
5. **On-The-Job Training:** This is community-based tool can be set-up by CPE staff to offer a more in-depth exposure to a specific position or area of employment. Unlike the other community-based activities however, this is not an assessment service. On-the-Job Training provides the job ready individual with the training required to successfully do the job. The expected outcome of On the Job Training is employment in the community, which may or may not be with this same employer. (Two weeks up to a

month)

Job analysis is a key tool used to structure and arrange community-based work experiences for consumers. Job analysis aids in identifying essential duties for selecting possible work experiences that best match consumer interests and needs. Job coaches for supported employment cases usually complete detailed job analyses. Other CPE specialists also conduct varying levels of job analysis to select and coordinate community work experiences. Some of the job analysis activities are completed through use of resources such as the Dictionary of Occupational Titles (DOT) and the Occupational Information Network (O\*Net).

### **Employment Readiness Classes**

Involvement in any of a series of small group classes can also be part of the career planning experience. These classes, which can begin during the planned services (Status 14-16-18) phase of the VR process, assist consumers in understanding their disability, making vocational decisions, developing job readiness skills and learning effective job seeking techniques. Various VR staff teach these classes: VR counselors teach interviewing techniques; rehabilitation assistants cover basic accounting techniques, and psychologists teach anger management. All area and training center rehabilitation staff must be available to teach at least one class per month, if needed.. This helps to free up CPE specialists to go out into the community to conduct assessments, follow-up on clients and also arrange for additional community work experiences.

Employment Readiness classes include:

- **Disability-Related Classes:** Series of classes that look at general aspects of disability and factors such as stress management, substance abuse, and self-esteem. These classes are normally provided to consumers early in the VR process after the rehabilitation plan is completed.
- **Pre-Employment Classes:** Basic interviewing, resume and application development, and basic computer skill classes are also available to promote job-readiness early in the VR process.
- **Employment Classes:** Advanced interviewing, job clubs, and classes on job survival and job search techniques are offered for individuals that are ready for employment (Status 20). These classes focus on getting consumers actively involved in

the job placement process.

## **Marketing the CPE Program**

Early in the development of the CPE program SCVRD decided to market CPE services as an integral part of the total range of services available to employers. The involvement of local employers to provide work experience opportunities for clients was vital to the success of the new CPE program. By marketing the total VR package, employers realize that they have a reliable source of capable, trained, and productive workers. A marketing brochure, "Discover the Benefits," was developed to provide VR staff with information to share with employers describing the full range of services offered by the VR Department.

## **Summary**

The CPE services approach was initially field-tested in five area rehabilitation offices and then expanded statewide in 2001. CPE specialists are now integral members of the rehabilitation teams in each of the area VR offices. The response from employers to the CPE services and the rehabilitation team approach has been very favorable. Smaller employers in particular have been very responsive since they can benefit from the full range of VR services when they hire qualified clients to fill their employment needs. Feedback from counselors and other VR staff about the CPE changes has also been positive.

An unanticipated benefit of the new CPE program has been a noticeable increase in the personal job satisfaction of the former vocational evaluators and adjustment specialists in their new role as CPE specialists. Vocational assessments now conducted by CPE specialists have moved away from the predominant use of work samples and standardized assessment instruments to a more consumer needs-driven assessment that features real work experiences in the community. Trial work experiences are used to determine vocational potential as part of eligibility decisions. This provides VR counselors and consumers with much better information upon which to make important decisions. Job tryouts are used as tools to give consumers actual work experience in areas of interest and also to provide concrete feedback on how someone was able to actually perform work tasks in real employment settings. Traditional assessment tools such as psychometric tests and work samples are still available and can be used in vocational assessment activities.

The changes made to the way that VE is practiced within the SC Vocational Rehabilitation Department have been significant. Vocational assessment and employment readiness classes are now seen as practical tools that can be used to provide consumers with the information and experiences needed to make informed vocational decisions. The new CPE program is now an integral part of the SCVRD's focus on providing necessary resources and services to assist persons with disabilities to achieve better, more satisfying employment.

## **The Virginia Model**

The Virginia Department of Rehabilitative Services (VADRS) views VE as a service that supports its mission through an individualized, comprehensive and systematic process. Consumers and staff work together to identify and assess the consumer's vocational interests, abilities, strengths, weaknesses, aptitudes, learning style, temperament and functional limitations relative to the consumer's chosen employment goal. It begins with an individualized plan that is carried out in a manner sensitive to cultural, ethnic, and other environmental concerns.

Based upon that plan, the evaluation becomes an educational process that furthers the VADRS mission by assisting the consumer to gain greater self and work knowledge. Consumers learn about the functional impact of their disability upon career options and identify barriers to employment. In addition, they also identify transferable skills, vocational potential, and reasonable accommodations or AT to remove barriers to employment and enhance opportunities. The VE process encourages the individual to become more personally involved in the planning and development of his or her career. The acquisition of knowledge of self and the requirements involved in occupational areas of interest empowers the individual and establishes a greater degree of confidence in career decision-making.

The outcome of a VE is a comprehensive report that is used for further rehabilitation planning towards successful, sustained employment outcomes. This report outlines the services received and the consumer's performance during the VE process. It identifies the consumer's vocational interests, aptitudes, acquired skills, functional limitations, and barriers to employment. The report also recommends services to enhance the consumer's ability to fully participate in a rehabilitation program, achieve individual VE goals, and maximize employment potential.

## **Vocational Assessment Service Options**

VADRS provides vocational assessment services through the Woodrow Wilson Rehabilitation Center (WWRC) and the Field Rehabilitation Services (FRS) Division. There are 49 full-time staff located throughout the Commonwealth who are managed by five chief evaluators. The five chief evaluators also have other supervisory responsibilities but are accountable for ensuring that the VE services are implemented in accordance with state standards of quality and for managing budgets to ensure adequate resource.

### ***Field Rehabilitation Evaluation Services:***

The FRS division has 40 full-time staff located in 13 centers that have fully operational VE laboratories. Services provided include paper and pencil assessments, hands-on work samples, and computer-based assessments. Field vocational evaluators use aptitude assessments, interest inventories, transferability of skills assessments, job matching software systems, computer career assessment software systems, computer proficiency assessment software, and other commercially developed work samples, as well as community-based assessments in some areas. Vocational evaluators also provide job analysis services to address needs of businesses and individual consumers. In addition, vocational evaluators may be assisted by placement counselors in arranging unpaid work experience (which includes a stipend) to allow the consumer to try a particular career choice prior to a training program or actual job placement. When a consumer requires more extensive situational assessments, local Community Rehabilitation Providers are contacted.

Evaluators also refer consumers to an Employment Resource Center (ERC) for independent career exploration. Vocational evaluators have increased the use of this new VADRS resource that includes interest inventories and other career assessment processes that are available online and require little assistance. The vocational evaluator working with a program support technician in an ERC can also tailor job searches and determine the positions available in the immediate or outlying areas to assist in the career selection process.

Vocational evaluators in some of the 13 evaluation laboratories are assigned to other field offices to provide mobile vocational evaluations, consultations and staffing. Having evaluators co-located with VR counselors and the consumers they serve allows for a natural, open line of communication and availability of an ongoing resource throughout the rehabilitation process.

***Woodrow Wilson Rehabilitation Center (WWRC) Evaluation Services:***

Another VADRS service option is a state operated comprehensive rehabilitation center that has an extensive array of services including:

- vocational evaluation
- vocational/career education
- medical services such as physical medicine
- psychology
- occupational therapy
- physical therapy
- communication services
- rehabilitation engineering
- assistive technology

WWRC has a residential component and can provide comprehensive, integrated VE services that may not be available in the home community of a consumer. With nine staff in the CARF accredited VE unit at WWRC, the center provides a variety of services depending on consumer need and referral source questions. WWRC staff provide mobile evaluations to field rehabilitation offices that are located close to the center. On WWRC grounds, there is a large VE area with several laboratories that include a skills assessment lab and commercially available work samples integrated with hands-on facility-developed work samples that allow for extensive career exploration. Another service option provided at WWRC is the Discovery and Career Lab which includes Internet job search and career information services, the Virginia View Career Search and Profile, informational video tapes, and other career information sources that allow an individual to explore career choices and training opportunities. WWRC can provide simulated situational assessments within occupational and career education classrooms and community-based business settings. They also offer feasibility evaluations to determine vocational readiness and the need for additional services. The average length of service at WWRC is ten days; however, it can vary from a few days to three weeks depending upon consumer and/or sponsor needs.

The hands-on nature of the facility-developed work samples, along with the Discovery and Skills Assessment Lab and occupational education classroom tryouts, provides an excellent career assessment venue for youth in transition. The ability to have integrated AT and medical services as part of the evaluation addresses the career assess-

ment needs of consumers with significant disabilities.

Both WWRC and FRS evaluation services use consumer satisfaction surveys to provide information for service improvement. WWRC also uses a referral source satisfaction survey that is included in the VE report. This feedback provides information to ensure that services and reports are providing the information needed for career planning.

## **Program Enhancements**

In 1996 VADRS was responding to an increased emphasis on quality employment outcomes and a reduction in workforce (Ashley and McGuire-Kuletz, 1999b; McGuire-Kuletz and Ashley, 2001). All positions within the FRS division and WWRC were reviewed to ensure their contribution to the Agency's mission. Focus groups of VR counselors and other stakeholders were convened to determine the need for career information and how best to provide it. In addition, field VR counselors were asked what VE services they needed from WWRC. The information gleaned from the process confirmed that vocational evaluation services were an important part of the service delivery system and that VR counselors trusted the recommendations from vocational evaluators. Several enhancements to the service delivery system were implemented as a result of this effort.

One identified need was increased involvement of vocational evaluators throughout the VR process and not just in the beginning. It was also believed that vocational evaluators needed to be integrated into the service delivery system. For example, VR counselors wanted more communication prior to referral for services to clarify the most appropriate career planning options. To respond to these suggestions, VE staff were reassigned to local rehabilitation field offices or local evaluation centers. Staff were assigned to support individual offices and provide regular consultations. "Consultations" and "staffings" were added to the performance measures for evaluators to ensure that they became an important part of the VE service.

VR counselors and management also indicated a need for additional and more formal job analysis services. Job analysis was identified as a business service that enhanced the visibility of the agency within the employer community. In addition it was believed that requiring job analysis would increase the vocational evaluator's knowledge of the requirements of specific jobs available in communities. Formal and informal job analyses were also added to performance measures

for the vocational evaluators. E-mail systems made feasible increased communication of formal and informal job analysis results with other evaluators.

Finally, the focus groups suggested that including AT assessment and computer proficiency evaluations within the vocational assessment process would enhance career planning for VADRS consumers. The WWRC has rehabilitation engineers, occupational therapists, physical therapists and speech language pathologists who are specialists in AT applications. VADRS created computer accommodation labs (CAL) at WWRC staffed by computer systems engineers and supported by other specialists. The CAL computer system engineers participate on the AT assessment team. The focus of the CAL is to enhance employability and independence through computer application solutions. At WWRC integrating AT and computer assessments into the VE process was made somewhat easier by providing joint services. These resources along with those of national experts and Virginia's Assistive Technology System were used to provide a nine day training (Ashley and McGuire-Kuletz, 1999a) for vocational evaluators to provide them with in-depth knowledge of various AT options.

The AT training was based on the Tech Points model (Langton, et al., 1994; Langton et al., 1998) adapted for use within the VE process. This model integrates the consideration of AT needs of VR consumers throughout the rehabilitation process and specifically integrates AT use within the vocational evaluation process.

Computers refurbished as a part of the computer accommodations module of the intensive AT training were loaded with accommodations software and placed in regional evaluation centers. In addition, "low tech" assistive technology devices were made available in these evaluation centers. This allowed for a preliminary screening and use of AT devices within the VE process. More comprehensive resources were made available through referrals and team consultations when needed. Vocational evaluators' performances were also rated on conducting AT consultations.

## **Evaluating Systems Enhancements**

Management determined that evaluating the changes in vocational evaluation services was needed. A follow up survey of VR counselors (Ashley and McGuire-Kuletz, 1999) found that 98% of respondents had used VE services within the past year, and the vast majority found the services valuable to career planning. Ashley and McGuire-Kuletz

(1999) note that many of the deficits and requested changes from the focus groups were reported as strengths during the follow up survey. This was particularly highlighted through the increased availability of job analysis, AT consultations, computer proficiency evaluations; and the availability of vocational evaluators for consultation and staffing in local offices. There were requests for additional services to be provided in rural areas. It was also noted that in areas where there were staff shortages and other issues it was more difficult to obtain VE services.

The focus groups also indicated a need for VE reports to be written in a manner that was more user friendly. This was also a recommendation of the Aspen Streamlining Project in which VADRS was concurrently engaged. The Streamlining Project additionally recommended that VE reports be mailed to the consumer and the VR counselor simultaneously.

Implementation of the recommendations of the focus groups and streamlining process were facilitated using an existing state agency annual vocational evaluation training event. The chief evaluators considered the recommendations from the focus groups and management to develop training in job analysis, report writing and assistive technology. The report writing training was the mechanism used to implement the more consumer friendly report and ensure that reports addressed the decision-making process of the referral source. In addition issues of diversity and implications of cultural sensitivity were addressed in the annual training event.

Anecdotal information from vocational evaluators indicates secondary benefits. A greater presence in the field offices and evaluator involvement throughout the rehabilitation process allows for evaluator "investment" in consumers they see, which is a natural tool for learning and validation. It is rewarding for an evaluator to see firsthand the use of his or her recommendations in a consumer's program and eventual success. On the other hand, if a consumer goes in another direction, this provides a "reality check" for the evaluator and a place to stop and reflect about what could have been different, changed, or improved. This natural feedback loop enhances teamwork between vocational evaluators and VR counselors.

## **Vocational Evaluators as Team Members**

VADRS has noted the benefit of including vocational evaluators in several of the teams that are used to deliver services. The require-

ment that vocational evaluators conduct six formal and six informal job analyses has created an opportunity for DRS business development managers to provide another service to employers and to identify employment opportunities for DRS consumers. For example, this combination of effort was instrumental in developing a partnership with a regional bank. The job analysis was used as the basis for development of vocational evaluation for several specific jobs within the bank. The job analysis also identified where the job could be accommodated. VR counselors were apprised of the requirements of the job and the skills and aptitudes needed. Applicants were screened and evaluated using criteria developed through the job analysis. Needed accommodations were also identified during the evaluation process. This combination of efforts resulted in over 90 jobs being made available for persons with disabilities over a two-year period.

### **Continued Program Enhancements**

VADRS management believes there is a continued need to rethink service models to ensure they are relevant to the needs of consumers and VR counselors. Ensuring the most cost-effective use of staff resources and maximizing employment outcomes requires a commitment to reevaluate service systems. One region of VADRS provides an example of the need and benefit for rethinking services. The central region of VADRS area evaluation center housed a combination of staff that were functioning separately, even though all had the main focus of enhancing employment outcomes. Because of a decrease in available resources and an increase of individuals with significant disabilities who were requesting services, the managers of the central region decided to review the positions and see if they could enhance their service delivery. To this end they convened a group of VR counselors, program support techs (paraprofessional staff using employment resource centers), managers, vocational evaluators, business development managers and placement counselors. One of the most powerful assets of the central region was determined to be the natural connection between the vocational evaluator, the job placement counselor and the business development manager. The consultations and staffing provided to VR counselors by vocational evaluators was also a strength. Combining these professionals into the Center for Career and Business Development (CCBD) has resulted in several enhancements to the VE process. For example there is a greater integration of labor market information and employment

trends into the vocational evaluation report. Another enhancement is that business development managers and job developers are more aware of the career goals and interests of VADRS consumers and can more effectively target employers. A new addition to the CCBD is the computer accommodations lab. A computer systems engineer and occupational therapist provide AT assessments to VE consumers when needed to identify accommodations to enhance job opportunities, or to reduce or eliminate barriers to employment. These professionals can also assist in the identification of job accommodations and job site modifications as a part of the career assessment process.

The inclusion of the vocational evaluator into the CCBD provides an opportunity for the involvement of the vocational evaluator throughout the entire VR process. The vocational evaluator may be requested to assist the placement counselor or job developer in identifying additional options or conducting job analyses to determine if recommended job placements are consistent with the vocational recommendations and the interests of the consumer. They may also evaluate the potential for job accommodations and request additional services from rehabilitation engineers or occupational therapists as needed. The vocational evaluator continues to provide consultation and staffing support to VR counselors to clarify reports and to determine appropriateness of potential VE referrals.

Another enhancement to VE services, realized through the CCBD, is the increase in recommendations for situational assessments or community based assessments by CCBD staff. There is also an increased use of ERC in the vocational evaluation process.

## Summary

Vocational assessment services in Virginia support the agency mission by providing consumers and VR counselors with the information needed to enhance the career planning process. Providing consumers with an understanding of interests, skills, abilities, and aptitudes, along with labor market information, accommodations, training opportunities and career options is seen as a powerful motivational tool and increases consumer personal responsibility in the VR process.

VE in Virginia has been under pressure to demonstrate that it contributes to employment outcomes for persons with significant disabilities. To that end, this service has developed an ongoing commitment to review and revise its business processes.

Increasing communication between vocational evaluators and VR

counselors improves VADRS services and outcomes, specifically: better referrals, better use of the VE report in career planning, more empowered clients who take more personal responsibility in their VR, and more successful placements.

Vocational evaluator involvement in multi-disciplinary teams resulted in more integrated service delivery, especially where AT is involved. Identification of needed AT prior to and during the VE results in more successful training and employment for persons with significant disabilities. Involvement in multidisciplinary teams results in more timely rehabilitation.

VDRS continues to revamp its services based on the changing demands of VR counselors, consumers and labor market trends. Individualized services that provide information to consumers for career planning is becoming increasingly important. Better communication between the VR counselor and the evaluator has also enhanced their understanding of the importance of the referral question. Staffing and consultation are often used to clarify the referral questions and provide information to the vocational evaluators prior to the consumer arriving for vocational evaluation services. This ensures that both the vocational evaluator and the VR counselor are clear on the purpose of the evaluation and can ensure that the most appropriate services are being provided.

### **The Maryland Experience: Career Assessment Services Options Model – A Collaborative Partnership**

The Maryland Department of Rehabilitative Services (DORS) uses community partners and the Maryland Workforce and Technical Center (WTC) to provide career assessments for eligible VR customers. The career assessment model used by both the community partners and WTC staff has been developed through a collaborative process over the last ten years. The development of the Career Assessment Services (CAS) Options Model represents a successful collaborative effort by a state VR agency, community rehabilitation program (CRP) partners, and a volunteer state chapter of a professional organization. The Career Assessment Services Options is a model for providing career assessment information to enhance program planning for VR consumers (Johnson and Blakeney, in press; Piatt, Fayne and Pell, 2001; Keller and Blakeney, 1999).

All partners believe in the importance of offering a variety of service options, management of the quality of the services provided, and

the importance of increasing the availability of assessment services across Maryland. They share the belief that through enhancing the career assessment services, VR consumers with significant disabilities will be empowered to achieve better employment outcomes. Maryland DORS, CRPs and the Maryland chapter of Vocational Evaluation and Work Adjustment Association (now the Maryland Vocational Evaluation and Career Assessment Professionals – VECAP) worked together to develop uniform assessment definitions, improve standards of practice, improve VE service accessibility and expand assessment choices for individuals with disabilities in the state of Maryland.

### **Developing the CAS Options Model**

Johnson and Blakeney (in press) describe the process of systems change in the vocational assessment process in Maryland. This resulted from inconsistent quality and availability of services across Maryland. A DORS Vocational Services Committee comprised of the DORS and the CRPs, (i.e. the “Committee”) was formed in 1993 with the expressed purpose of enhancing their working relationship (Keller and Blakeney, 1999.) This Committee was “tasked” with the following mandate:

- Review types of vocational services currently purchased by DORS counselor from CRP’s;
- Develop uniform definitions based on national standards and state practices; and
- Recommend how services can be improved, expanded and explore new types of vocational services.

The Committee developed the following vision statement:

“Informed and sustainable employment outcomes can be attained by persons with disabilities through the provisions of diverse career assessment service options provided by trained career assessment professionals.” In response to that mandate, the Committee conducted a survey of approximately 54 accredited CRPs that provided vocational evaluation/assessment services to DORS consumers. The survey revealed that the usual array of CRPs assessment services were in need of improvement. For example, many CRP survey respondents wanted to expand their service offerings to include a learning style assessment, physical capacities assessment, academic achievement, dexterity and motor coordination, cognitive abilities assessment, community based situational assessment, and temperament/personality assess-

ment. In addition, they wanted to enhance the quality of the services offered by improving their skills and knowledge base.

The Committee's next step involved a statewide examination of DORS counselor concerns. This examination of VR counselors concerns revealed a desire to develop "uniform assessment definitions" based on national standards and state practices and to standardize training provided to all CRP staff that provide career assessment services. In addition, VR counselors expressed the value in developing an assessment model that required several hours to complete (or a day or two) in contrast to an existing assessment model which required one or more weeks to complete. As a result of these two surveys it was determined that there was a need for a uniform definition of VE services including desired outcomes and expectations of the service.

In 1994 the Committee expanded to include the Maryland chapter of the professional organization of career assessment personnel and vocational evaluators in an effort to develop additional service options for consumers with disabilities. The Committee felt that the "options model" could ultimately provide consumers with a more enhanced array of services that can be individualized to address their evaluation needs. From this preliminary work it was determined that a new service model for providing VE services was needed. The Maryland DORS and the Maryland Chapter of VECAP embarked on a long term collaborative project to define the scope of services, quality standards and training needed to ensure availability of high quality career assessment services that enhances vocational opportunity for persons with disabilities.

### **Five Essential Components of CAS Options**

The Committee agreed that all assessment options must include the following five essential components:

1. Regardless of the assessment option selected, the participation and input of the consumer is essential and will be included throughout the process, particularly during each of the following activities:
  - i) determining the purpose of the assessment
  - ii) developing the individual assessment plan
  - iii) reviewing and discussing results
  - iv) making recommendations
2. Assessment process will be sensitive to cultural, linguistic, ethnic,

and other environmental considerations.

3. Any assessment process will include vocationally relevant behavioral observations and temperament factors.
4. Assistive technology needs will be considered in the delivery of each of the service options.
5. Regardless of the service option selected, results will be summarized, synthesized, and interpreted in a written format that is understandable to the consumer.

The Committee's expressed desire was to develop uniform definitions for career assessment services and to develop standard practices for the model based on the types of VE and/or assessments suggested by VR counselors and consumers. From a review of research and practice, the work of the Committee generated these options, which became known as the CAS Options.

### **Career Assessment Service Options**

The assessment options are:

Itemized Assessment: an individual assessment tool, instrument or method used to answer a very specific referral question;

Focused Assessment: assessment to determine the feasibility of a specific chosen career area as a career goal, that can include real or simulated work;

Exploratory Assessment: a process utilizing career exploration resources and/or methods designed to provide information on the next step in long range planning for the individual, investigation and education in jobs and job clusters taking into consideration the individual's interests, needs, abilities and functional capacities;

Community-Based Assessment: a holistic assessment of an individual's interests, needs and abilities in a job work site setting located in the community. Community-based assessment is an umbrella term depicting a category of methods that may include situational assessment, on the job evaluation, job try outs or trials and /or supported employment assessment;

Comprehensive Assessment: a holistic broad-based intensive process that is grounded in the use of real or simulated work that is individualized and answers questions that could not be answered by other career options. This option incorporates a career planning process

for an individual who faces the most severe vocational barriers or challenges. The process uses a combination of all typical assessment methods with the possible, but not required, exception of a community-based assessment (Johnson and Blakeney, in press and Piatt, Fayne and Pell, 2001.)

Piatt, Fayne and Pell (2001) also point out the importance of the referral questions as a part of enhancing the career assessment process. They note example referral questions for each of the five service options that are included in the training for the CRP staff and the VR counselors. Training on the referral questions has helped the counselor differentiate the service to be provided and the outcomes to be expected. In addition, the committee developed a checklist for each option for the CRPs to utilize to ensure that the standards are met.

### **Implementation of the CAS Options**

The Committee developed a manual that identified each of the five CAS options as well as a process for implementing the new service options. Mandated trainings were held throughout the state where interested CRPs were trained along with DORS counselors and supervisors. All were provided with the manual. The process for implementing the change included using a statewide committee to provide the manual and five regional committees to provide quality assurance. These local monitoring committees include DORS counselors and supervisors and CRP staff. These committees use a check list developed by the state team to review reports from CRPs for each of the service options. The monitoring committees use this checklist to review reports to ensure that the quality of the service is meeting the standards and needs of the consumers and the VR counselors within DORS.

Johnson and Blakeney (in press) report that the monitoring teams are a critical factor to ensuring the quality of services being provided and in the fine tuning of the CAS options model. They note that the monitoring team process is time intensive and requires monthly meetings in the beginning of their process. They also note that over time the monitoring teams reported an improvement in the quality of the career assessment reports and services.

### **Increasing Availability of Services**

One of the goals of this effort was to increase the availability and quality of career assessment services throughout Maryland. As of March 2003, 47 of 66 CRPs had been through the training and been

designated as approved providers. The number of DORS approved vendors has remained consistent through March of 2004. To enhance the service options available through accredited programs and professionals Maryland takes a unique position on fees. There is a dual fee structure: one for programs that are CARF accredited and/or use certified vocational evaluators or have staff supervised by a certified vocational evaluator performing the career assessment; and another for career assessments or programs that are not CARF accredited and do not have certified staff. There are also opportunities for individual certified vocational evaluators to provide the CAS options at the standard fee rate through a cooperative agreement. These strategies are viewed as a mechanism to increase the use of qualified professionals to provide the career assessments.

To ensure the consistency of the career assessment services provided throughout the state the 16 vocational evaluators at the WTC also use the CAS options model. All CAS model options are provided at WTC with the exception of the community-based services option. The WTC does, however, provide the opportunity for more emphasis on integration of AT within the career assessment process when appropriate. Preliminary data from post implementation DORS Counselor Surveys show that the most often used CAS Option is Comprehensive (47.7%). The Exploratory Option (41.9%) and Focused Option (39.5%) seem to be chosen at a fairly similar rate. The remaining options: Community Based (10.5%), and Itemized (5.8%), are not utilized as much by the VR counselors. Maryland DORS staff suggest several possible reasons for the high utilization of the Comprehensive Option; these include clients with more significant disabilities needing CAS services, along with VR counselors and CRP staff not fully understanding the CAS options. They believe the latter point stresses the importance of ongoing training for VR counselors and CRP providers to ensure the most cost-effective use of this service delivery model. Furthermore, Community-Based assessment is not used as often because few providers choose to offer the option, citing the difficulty in arranging opportunities with employers.

## Summary

An important aspect of the Maryland CAS Options Model is the collaboration among the state agency, the CRPs and the professional association to develop the quality standards of practice for career assessment services. This process has been lengthy in the development

of the model, including uniform definitions of service, standards of quality, training modules, and quality assurance processes. Johnson and Blakeney (in press) and Piatt, Fayne and Pell (2001) emphasized the importance of the collaboration and commitment of all parties to a long term implementation strategy. The increase in interagency communication is a result of these efforts and a part of the enhanced service delivery.

The CAS Options Model demonstrates the value of using consumer needs, VR counselor and system requirements to develop assessment models to enhance employment outcomes. The emphasis on training VR counselors in the use of the model and in developing appropriate referral questions enhances the individualization of the process. Because the model is individualized to address interests, skills and readiness for vocational services and requires consumer participation in each of the service options, it embodies empowerment and informed consumer choice.

As the model has been implemented there has been an increase in communication between the VR counselor and the CAS Options provider. This seems to result in more efficient use of resources. In July of 2004, with two years of data on the implementation of the CAS Options model, Maryland DORS will be better able to determine the effectiveness and efficiency of this new, promising practice to enhance the employment outcome of persons with significant disabilities in Maryland.

### **Intensive Assessments: Integration of Vocational Evaluation and Assistive Technology Resources**

Several of the models presented have included AT as an option within the service model for career assessment. Both Maryland and Virginia have AT as a part of the service option through community assessments and use a state operated comprehensive rehabilitation center to provide a more integrated career assessment assistive technology service model. The next Promising Practice describes an intensive, integrated service targeted to the needs of most significantly disabled consumers for whom AT offers enhanced career opportunities.

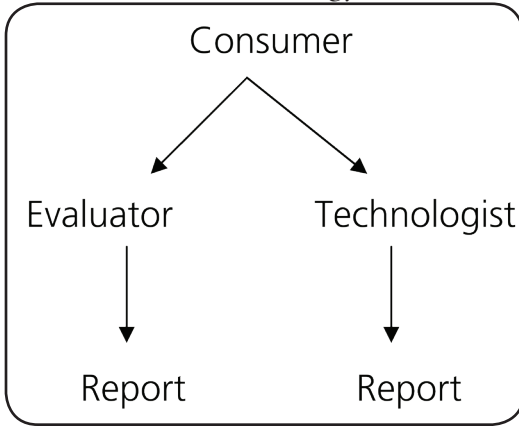
The possible benefits of combining VE and AT resources to better serve individuals with most significant disabilities have been explored in a number of ways by the Stout Vocational Rehabilitation Institute over the past 20 years. The concept of "Intensive Assessments" devel-

oped by the Assistive Technology and Assessment Center (ATAC) is one result of these experiences.

## Background

The Assistive Technology and Assessment Center was formed following the merger of two separate centers within the Stout Vocational Rehabilitation Institute: the Vocational Development Center (VDC) and the Center for Rehabilitation Technology (CRT). The VDC offered VE services that consisted mostly of five-day in-house assessments provided by vocational evaluators. The evaluation usually consisted of interviewing, career counseling, psychometric testing, work sample testing, and observations. A single evaluator typically worked with three consumers during the five-day evaluation period. Services were followed up with a staffing and a comprehensive final report. The CRT provided rehabilitation technology assessments in a variety of areas including mobility, transportation, job site analysis and modification, independent living, computer access, and more and was offered both in-house and on the road. These services started and continued to follow the global model of VE in which observation was key. The rehabilitation technology services lasted anywhere from two hours to ongoing services lasting days, weeks, months, and even years.

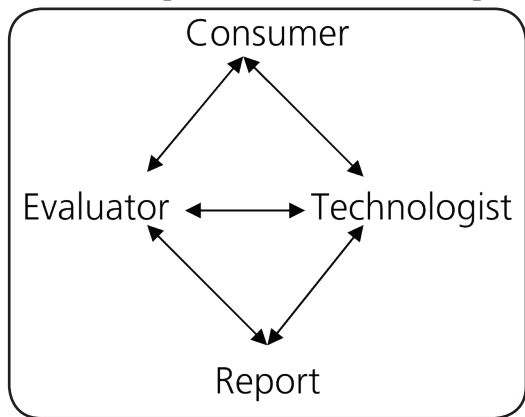
Prior to the merger of these two centers, and to some extent yet today, VE services and rehabilitation technology services were offered independent of each other. There was little communication between the two professions even though they were housed in the same building. Communication between VE and rehabilitation technology staff was limited even when a person referred for a five-day VE was also to receive rehabilitation technology services. Interaction often consisted of a question from the technologist to the evaluator early in the week asking, "What type of work is this person going to do?" This was often too early in the week for specific vocational areas to be identified. The reports from the two assessments were often sepa-



rate, distinct, and unfortunately, usually unrelated. Though both the vocational evaluator and the rehabilitation technologist had worked with the consumer and had this person's best interest in mind, recommendations would often fail to provide the kind of material needed for vocational planning.

This approach was not satisfactory to address the needs of the most significantly disabled consumers or the professionals involved, since the technology resources were not being effectively used within the VE process. Vocational Evaluators were encouraged to include the CRT resources during the VE process. This included a staffing with the technologist and in some cases, a consultation that may last two hours or more depending on the needs of the consumer. However, for consumers with more significant disabilities, this did not seem to address the need of the VE process to identify career options.

Though everyone was encouraged to think positively about a person's skills and abilities, it was difficult for many to look beyond limitations that resulted from severe or multiple disabilities and to keep an open mind to all of the opportunities possible when assistive technologies and accommodations were considered. It was felt that with increased communication and brainstorming between the evaluator, technologist, and consumer, more information could be gathered and presented



that would impact on vocational planning. With this idea in mind, the concept of "Intensive Assessments" was formed.

### **Intensive Assessments**

The Intensive Assessment developed through the ATAC is appropriate for the most significantly disabled consumer where it is clear that AT will be required to enhance employment opportunities and self-efficacy. This model combines AT services with VE services. The process begins with a rehabilitation technologist working alongside a vocational evaluator suggesting or making accommodations to the testing environment and activities. Due to time and resource limitations, the accommodations and devices are not always available

for trial. However, the technologist explores and discusses with the evaluator and consumer appropriate beneficial ATs for many areas of the consumer's life that could impact their vocational potential. The technologist then examines the vocational limitations identified by the evaluator and suggests techniques or devices to overcome or circumvent those limitations. The overall goal of the Intensive Assessment is to find the consumer's greatest skills using extensive observation and combined with problem solving using technology resources and other accommodation options. Frequently this approach is able to uncover skills and strategies that the consumer may not have been aware of. The technologist remains actively involved in the evaluation process and continues to use the same problem solving approach when specific vocational goals are identified. The evaluator usually identifies the work skills or traits and the technologist looks at possible ways that assistive technologies could assist the consumer to perform essential tasks. Together, the vocational evaluator and rehabilitation technologist present the recommendations through a joint staffing and a single comprehensive written report, as featured at right.

The Intensive Assessment has been effective in serving not only the individual with a severe disability who might otherwise not be able to participate in VE, but also individuals with less severe limitations or multiple disabilities who may benefit from consideration of AT in vocational or educational endeavors. The information resulting from the Intensive Assessment prioritizes needs or next steps and identifies other service providers whose involvement may benefit the consumer. These service providers may include medical, social service, or independent living providers, to name a few. This encourages the team approach to service provision to best meet the variety of unique needs of the consumer.

## **The Process**

The Intensive Assessment follows a five-day process similar to that of ATAC standard vocational evaluations. The main difference is that the rehabilitation technologist works alongside the evaluator throughout the entire evaluation process and also performs additional rehabilitation technology assessments such as computer access, transportation, seating, mobility, independent living, education, employment, and recreation assessments.

The components of the ATAC evaluation process are commonly part of most vocational evaluation services. They include reviewing

case files and preparing for the assessment, conducting the initial interview, administering the assessment tasks, exploring career options, and developing and presenting recommendations. To be effective, rehabilitation technology consideration takes place during each of these components.

During a case file review, the rehabilitation technologist and vocational evaluator often independently review the case materials, noting information relevant to both service areas. Of importance to both individuals are medical history and prognosis, educational and employment experiences, previous VE or rehabilitation technology services received and their effectiveness, current adaptive equipment utilized, and functional limitations that may require accommodation in order for the consumer to participate in the evaluation or in eventual education or employment settings. The evaluator and technologist then meet to discuss the upcoming case, to prepare, plan, and ensure that materials are available in the appropriate format and potentially beneficial assistive devices are available for try out.

During the initial interview, both the evaluator and technologist begin the process of observing the consumer. A special effort is made to look beyond initial perceptions of the individual's disability since AT can often uncover ways to do things that may not have been considered possible. Observations of the individual using assistive devices or accommodations are important. Discussing the individual's feelings about AT and about how he or she approaches tasks is of the utmost importance, since the consumer is the best source of information. The consumer is best able to describe devices and modifications he or she has utilized previously and the results that were achieved. The consumer can also share feelings about vocational options and about using assistive technology devices and accommodations. A person resistant to consideration and use of AT will likely avoid using it after the assessment.

During the administration of assessment activities, the evaluator and technologist closely monitor and observe the consumer's interaction with his or her environment, performance, and behavior for functional capabilities and limitations. The consumer is frequently asked if he or she has any suggestions as to ways to enhance performance on or access to the task.

When exploring potential career options, the technologist works closely with the vocational evaluator. This helps to take advantage of technology resources and avoid possibly allowing functional limita-

tions to unnecessarily rule out employment options. The technologist and vocational evaluator look at any functional limitations that have been identified and begin the process of exploring whether AT could be available that could improve the consumer's performance. This can be useful both when a consumer wants to return to his or her previous work or explore a new field. In each situation job demands are analyzed and assessment techniques such as work samples or situational assessment are used to assess the presence of traits and factors or skills associated with those demands. The technologist then explores the feasibility of accommodations or modifications to allow the consumer to perform all or part of the job.

As recommendations are developed, the possible role of accommodations or assistive devices are documented and rationale for their use explained in detail, including purchasing information and cost, if appropriate. The recommendations resulting from both the VE and rehabilitation technology services are combined into a single comprehensive staffing and report. During the staffing, the rehabilitation technology case manager directs the course of the discussion of findings with the consumer, vocational evaluator, referral source, and other significant parties in attendance as assessment findings are shared. As the evaluator presents recommendations formed in view of the evaluation results, the rehabilitation technologist discusses beneficial accommodations or devices to improve the consumer's quality of life and that may allow the consumer to perform at his or her maximum potential in realms of interest. The consumer is strongly encouraged to actively participate in the staffing and is asked for feedback in response to the Intensive Assessment, including suggestions for improvement of services. Following discussion of the evaluator's recommendation, the rehabilitation technology case manager is available to further expand upon any technology-related recommendations and to answer any questions. The staffing process typically lasts between one and two hours.

Following the staffing, a single comprehensive final report is written by the vocational evaluator and rehabilitation technologist. The evaluator writes the bulk of the report, including the reason for the referral, background information such as medical and medication, education, and employment histories, and current personal, financial, and living situations. The evaluator also writes the section about testing results, work task results, and observations. This section is quite detailed since it also contains information about accommodations

made and the results achieved. The amount of detail is necessary to provide a rationale for anticipated benefits of the AT devices or accommodations possibly recommended. The length of the report is often longer than the report for a standard evaluation.

Though the process of providing Intensive Assessments is quite similar to that of other vocational evaluations, the Intensive Assessment differs in that two professional staff work simultaneously with the consumer for much of the assessment. Another significant difference is that the assessment often takes place in the consumer's customary environment, which could be their workplace, school, or home.

## **Summary**

The goals of the Intensive Assessment are to identify where the greatest needs or problems exist, prioritize them, and then identify what follow-up services may be beneficial. This process has assembled a multidisciplinary team that is able to better advocate for the full range of needs of the individual that impact on vocational potential. For vocational evaluators interested in learning more about assistive technologies or in providing accommodations during the evaluation process, the evaluator could start by contacting an area rehabilitation technologist, visiting a local AT loan closet or demonstration center, attending local conferences and trainings, and building a library of AT information including books, product information sheets, magazines, and product catalogs. The contacts and information will help to provide important resources to make AT a meaningful part of vocational assessment and evaluation services.

Replication of this model in other settings is feasible provided that rehabilitation technology specialists and VE staff can work closely together to integrate these two complimentary, but differing disciplines. Vocational evaluators with traditional training and skill sets will find it difficult to problem-solve the potential impact of technology resources while still performing vocational assessment tasks. Familiarity with the function and operation of AT products or the steps needed to design alternative modifications to perform tasks are important skill areas needed. This is the value of teaming the vocational evaluator and rehabilitation technology specialist.

The staff/consumer ratio is important to note. Rather than one professional staff member working with three consumers during a five-day vocational evaluation, the Intensive Assessments involve two

professional staff members working with one consumer during that five-day period. Although the vocational evaluator and rehabilitation technologist work together during that time, they both have separate responsibilities and activities that need to be completed during this period. Currently only one individual is scheduled per week, however consideration has been given to perform two Intensive Assessments per week. Considering the multitude of unique needs of the consumers served, it is quite difficult to imagine working with two consumers during that already time-limited period. Typically, once the vocational evaluator completes the final report, he or she steps out of the process while other service providers address the recommendations. With the Intensive Assessments, it is common for the rehabilitation technology specialist to continue to be involved as the AT recommendations are being implemented. One result is that the evaluator also keeps abreast of the progress the consumer is making toward his or her educational or vocational goals.

It is felt that integrating AT expertise with VE services increases the capability to assist consumers with disabilities to perform closer to their maximum potential during assessment and evaluation activities and in educational or employment activities.

Acknowledgment and thanks are given to Gina Klukas and Jeff Annis for permission to use content from their paper "Intensive Vocational and Technology Assessment: Integrating Assistive Technology Into the Vocational Evaluation Process" in this description of the Intensive Assessment model.

## **Conclusion**

The promising practices have several features in common. They all stress the importance of working in a collaborative manner with important stakeholders, such as VR counselors and managers, in the development of new service models that enhance employment outcomes of persons with significant disabilities. All of the promising practices presented have standards of quality and continuous quality improvement practices in place to ensure that services are provided in a manner that addresses the needs of the VR consumer. The most important aspect of the promising practices is the enhancement of communication between the career assessment professional, the VR counselor and the consumer. In addition, the integration (in most cases) of the professional into all aspects of the VR process is seen as an important service enhancement.

## Self-Study Questions

1. Intensive Assessment at the Assistive Technology and Assessment Center utilizes a professional team of
  - a) the VR counselor and the vocational evaluator
  - b) the vocational evaluator and a psychologist
  - c) the rehabilitation technologist and the consumer
  - d) the vocational evaluator and the rehab technologist
  - e) All of the above.
2. Why is Program Evaluation important to vocational assessment?
  - a) It measures efficiency and effectiveness of the program.
  - b) It addresses satisfaction of the consumer and counselor.
  - c) It measures the immediate and long term outcomes of the vocational assessment program.
  - d) It will provide the data necessary to modify the service delivery to meet the needs of the consumers and referral sources.
  - e) All of the above.
3. The four state models described in this chapter provide:
  - a) highly individualized options
  - b) assistive technology for all assessments
  - c) heavy involvement of community rehabilitation programs
  - d) all of the above
4. Promising practices that the four state agency models have in common include:
  - a) enhanced communication among the evaluator, counselor and consumer
  - b) continuous quality improvement practices
  - c) integrated assessment throughout the VR process
  - d) A and C, but not B
  - e) A and B, but not C
  - f) A, B, and C



## Chapter Nine

# Looking Back

A review of the history of vocational evaluation (VE) reveals events that established both the foundation and the development of the VE field. Each event is a marker along the historical journey that highlights an accomplishment and gives a preview of what is happening today. The emergence of public education in the early 1900s prompted a keen interest in both education and vocational evaluation (Nadolsky, 1971). This interest established the historical foundation for a vocational assessment delivery system that has had a significant impact on how people with disabilities select employment and career goals. This history is characterized by the mandates of legislation, the growth of professionalism within evaluation practice, the increasing number of persons eligible for vocational rehabilitation (VR) services, and the development of evaluation methodologies fueled by labor market changes and technological advances. Also germane to this continuing history are the philosophical changes initiated by consumer advocates and federal legislation that have shaped the entire vocational evaluation process. Each of these factors has contributed to the dynamic growth of VE services.

The role of the vocational evaluator has been subject to change due to legislative mandates, significant economic trends, the development of community-based delivery of services, the emphasis on the changing needs of the consumer, and the remarkable advances in science and technology. While some evaluator roles have maintained the same functions over several decades, others have either been modified or expanded in response to the changes occurring in society and

within the VR field. This expansion has elicited unique and demanding competencies.

Julian Nadolsky (1971) defined VE as “a process designed to assess and predict work behavior and vocational potential primarily through the application of practical, reality-based assessment techniques and procedures.” Nadolsky’s understanding of VE as practiced in the 1970s is a “bridge” that links historic periods within vocational evaluation. Many of the assessment-related developments until 1970 can be considered foundational to evaluation practice, while others connect with emerging consumer demands and technological advances. Facilitated by constant external and internal political influences, and grounded in foundational principles, all of these developments generate a complex pattern of assessment services. Vocational evaluation has four periods: (1) beginning of vocational evaluation to the 1960s; (2) 1960–1973; (3) 1973–1990; and (4) 1990 to the present.

## **I. Beginning- 1960**

Wesolek and McFarlane (1992) believe that “vocational evaluation was not structured until the 1950s when work simulation tasks were used to place client workers in various jobs in rehabilitation facilities” (p. 51). Pruitt (1986) explains that vocational evaluation emerged from the VR field and borrowed heavily from many other fields that include education, clinical and industrial psychology, and counseling. Federal mandates of an accepted philosophy of testing/diagnosis and specific historical events have facilitated the development and growth of the VE field. The pioneering work of Binet and Henri (1895) in the area of intelligence testing—a microanalysis approach (the measurement of each individual trait and the subsequent comparison of the results to a normative standard)—and the psychological and mental testing approaches influenced vocational assessment and evaluation and remained the methodology of choice for many decades. Rehabilitation workers at that time relied heavily upon psychometric approaches.

Veterans with disabilities returning from both World Wars fostered the expansion of the VR field and facilitated the use of realistic vocational assessments (Nadolsky, 1971; Pruitt, 1986). Standardized tests measured every facet of human capability (e.g., aptitudes, interests, and academic achievement). When VR personnel realized that standardized measurements were not always practical for people with

disabilities, they began to search for and apply techniques used in industrial and applied psychology (e.g., development of the trolley car work sample for Boston Transit by Hugo Munsterberg; development of time-motion and efficiency studies that broke down work into minute tasks by Frank and Lillian Gilbreth) (Pruitt, 1986). The U.S. military initiated alpha testing to screen GIs for service, and during World War II the Office of Strategic Service experimented with situational or simulated approaches to assessment. For the purposes of VR, many limitations of psychological testing (e.g., inability of test results to predict behavior and the poor relationship between psychological test instruments and the realities of work situations) were realized. New types of assessment methods were needed (Nadolsky, 1971; 1983; Pruitt, 1986). Nadolsky (1971) and others (Hoffman, 1970; Neff, 1970) emphasized that no single approach was accepted by the entire field, and there was little research evidence proving the effectiveness of one approach over the other.

During this period of time, however, short-term training of VR personnel to conduct vocational assessments began appearing at Institutes and conferences and included an emphasis on work sample systems and other performance-based assessment activities for immigrants and citizens of inner cities who were “disadvantaged.”

For more than 80 years, VR legislation in the United States assisted persons with disabilities to become employed. The legislation authorizing vocational and related educational services grew from a small program for persons with physical disabilities to a broad array of programs serving persons with physical, mental, or emotional difficulties. Included in the services offered to those with disabilities were comprehensive assortments of opportunities offered by State VR agencies and through non-profit private organizations. Moreover, respected theories of psychological measurement, human behavior, and career development provided a foundation for the evolving practice of vocational evaluation. They identified the domains of relevant vocational behavior and specified the constructs that are related to vocational exploration and decision-making (Parker & Schaller, 1996).

The following three pieces of legislation were the catalyst for the growth of VE:

- The 1943 Vocational Rehabilitation Amendments extended services to persons with mental illness and mental impairments and provided a substantial expansion of financial support for rehabilitation programs by increasing the federal

share of the program costs. This Law further facilitated the development and testing of new models and techniques for evaluating vocational potential.

- The 1954 Amendments to the Vocational Rehabilitation Act created funds for the expansion both of VR facilities and training of their personnel. This encouraged the development of improved techniques for determining the vocational potential of many severely disabled populations. The Act also authorized extension of federal aid to community rehabilitation projects, and further liberalized federal matching to encourage rapid expansion.
- The Davis – Bacon Act (Medical Facility and Construction Act) was also passed in 1954. It established VE as a separate and unique service within VR facilities. It also introduced the pre-vocational evaluation unit as a required service in those comprehensive rehabilitation centers that were being established.

During this period, the functions of vocational evaluators were enlarged to respond to legislative mandates and technological advances. Vocational evaluators continued to collaborate and advocate. In explaining the consumer's employment and career potential, vocational evaluators exhibited a high degree of professionalism. This growth of professional identity facilitated the public's recognition of the vocational evaluator's role and provides a solid foundation for the anticipated changes in methodologies and applications of vocational assessment to keep pace with the needs of people with disabilities seeking information about their career potential.

## **II. Modern Rehabilitation Era: 1960-1973**

Change became the watchword for the field during what is the greatest growth period of VE. At the same time, many approaches were being abandoned and were replaced by the Place-Train Model that presumably eliminated the need for VE. Federal legislation and specific historical events continued the development of new VE approaches and the expansion of the vocational evaluator role. It was a busy legislative period, as shown by the following three landmark laws:

- the 1965 Amendments to the Vocational Rehabilitation Act provided for an extended evaluation of the client's employ-

ment potential and brought the vocational evaluator more intrinsically into the total VR process as the critical determinant for individuals with the most severe disabilities;

- the 1968 Amendments to the Vocational Rehabilitation Act provided for separate funding for VE and work adjustment services, and expanded the scope of the target population for receiving these services;
- the 1968 Vocational Education Act allowed set-aside funds for improving access to programs to meet the needs of students with disabilities and disadvantages.

Specific historical events that influenced the evolving role of vocational evaluators include the following:

- development of professional training programs at Stout State (now the University of Wisconsin-Stout), Auburn University, and the University of Arizona;
- founding of a professional association for vocational evaluators;
- creation of a professional, refereed journal by the Vocational Evaluation and Work Adjustment Association (VEWAA);
- and growth of VE services offered in VR facilities, rehabilitation hospitals, and in manpower programs.

Other noteworthy events impacting VE included the development of a professional accrediting and certification body, the Commission on the Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES), promoted by VEWAA; the civil rights movement that eventually moved beyond race to disability; the expansion of work-based experience for special education students and adults with disabilities; and the further development of commercial work samples, partly initiated with federal funding to develop more performance-based methods. With the beginning of the independent living movement and the recognition of teamwork as essential to successful rehabilitation of people with severe disabilities, sheltered workshops began to hire people to work as “vocational evaluators” and to conduct assessments that combined psychometrics with observations of behavior within work or situational settings. Some sheltered workshops developed and marketed their own performance-based assess-

ments (e.g., the MacDonald Training Center of Tampa, Florida: Disc Assembly).

In summary, professionalism within VE was growing, yet it had yet to achieve an identity. A more clinical approach (observation of work performance and behaviors) became a recurring practice accompanying the application of tests, assessment systems and work samples. Also, VR professionals became aware of the impact that VE services could have on employment and career exploration. It was seen as an opportunity to reach out to different populations for VR services with increasingly sophisticated assessment methodologies and include recently developed commercial work sample systems. VE sites were created within VR facilities. While VE was generally confined to VR and manpower programs, these improvements suggested that VE could make a difference for the client involved in the VR process.

### **III. Modern- Multi-Service Application Era: 1973-1990**

This could also be known as the commercialization era. During this historical period, the VE field witnessed the further development of supported employment, the growth of private-for-profit sector VR, and important changes that affected the way VE was perceived by those who purchased services. Consumer involvement, shorter time periods for evaluation, more diversified assessment approaches, more extensive utilization of computers, and the broader use of integrated data also were driving forces that fueled the growth and many accompanying changes in VE. Professionalism was still energizing the field of vocational assessment. The developers of commercial work sample systems, moreover, displayed noticeable control over the way consumers were evaluated for potential jobs. These developers exerted considerable influence in the training of evaluators (Wesolek & McFarlane, 1992).

During this period, the use of the General Aptitude Test Battery (GATB) slowly diminished and serious limitations restricted its use. Though a popular instrument in many evaluation facilities, it was perceived by many as a discriminatory measure toward minority populations and several lawsuits were initiated. All of the sub-tests of the GATB are highly speed based and more recent forms, Forms C and D, published in 1983, need updating. Perhaps the emphasis on short-term evaluations and the growing use of the situational assessment method also contributed to its demise in VR agencies. In addition,

more recent norms were based on convenience samples that were not representative of the groups they were intended to describe (Parker, 2001).

In the eighties, moreover, there was a “power struggle” over the delivery of services between the independent living movement, community-based facilities, and traditional system advocates. Proponents of both the independent living movement and community-based facilities advocated for a re-examination of the traditional methods of assessment. Those with severe disabilities and/or those who were receiving services from community-based facilities believed that many traditional approaches were simply not relevant to their career needs. These perceptions caused conflicts over what was the best way to explore the employment potential of the consumers. Such conflicts and re-examinations stimulated the development of further reality-based approaches.

Similar to themes highlighted from earlier periods of history in VE, landmark federal legislation and specific events prompted expansion of the delivery of VE services, and influenced the field and roles for vocational evaluators. During this period there were six significant federal laws passed which impacted the growth of VE. The Rehabilitation Act of 1973 (P.L. 93-112) emphasized serving those with severe disabilities, promoting consumer involvement, program evaluation, reduction of specific barriers (prejudice, transportation, architectural) in Section 504 and addressed discriminatory practices in employment. In addition, particular functions associated with traditional roles of the vocational evaluator were expanded or re-energized. The 1978 Amendments to the Rehabilitation Act of 1973 (P.L. 95-602) mandated the establishment of independent living programs for those persons with disabilities without work potential who could be brought to independent living status through the provision of rehabilitation services. The Education of All Handicapped Children Act (P.L. 94-142) provided for free appropriate public education for all students with disabilities. In addition to serving as a civil rights act, it also required assessment to determine eligibility.

Furthermore, legislation provided a foundation of service for individuals with disabilities who were moving into adult services. Subsequent Amendments to the Education of the Handicapped Act in 1990 required planning and provision of transition services based on assessment of individual needs, interests and preferences., The Vocational Education Act Amendments of 1976 and the Carl D. Perkins

Vocational Education Act of 1984 mandated vocational assessment of students with disabilities to improve access and success in vocational education programs. Finally, the 1986 Amendments to the Rehabilitation Act of 1973 (P.L. 99-506) authorized state VR agencies to provide supported employment services for individuals with severe disabilities for whom competitive employment had not been traditionally accessible.

Other historical events stimulated the development of VE as a profession and had an impact on its roles and practices. The national VEWAA project conducted focus groups of evaluators from across the nation and generated a framework for practice, renewed interest among practitioners (VEWAA, 1975), and an increase both in VEWAA membership and of those certified as vocational evaluators. The increased development of supported employment expanded the options available to the vocational evaluator for training and planning. This development also facilitated closer collaboration with the VR counselor to make the best possible match between the consumer and assessment/training/job opportunities. Further, new venues for work were established requiring a labor force to be more educated, skilled, and competitive.

Increase of existing knowledge domains because of 1973, 1978, and 1986 federal legislation and the development of new knowledge areas stimulated the redirection and implementation of VE procedures. This legislation also encouraged the use of shorter-term evaluations (one week or less became the accepted practice) and pursuit of accountability, prompting many evaluators to relinquish the use of real work (either facility- or community- based) in favor of work sample packages requiring a shorter performance length or standardized psychometric tests. Higher competency levels for the vocational evaluator also resulted from these legislative and practice factors. Importantly, a major new area of expertise was demanded as Social Security Administrative Law Judges and others learned of the unique skills of vocational evaluators to provide expert testimony regarding vocational potential, functional limitations, and economic projections of lost income due to injury (McDaniel, 1986).

Legislation enacted during this period suggested philosophies that provided a theoretical base that changed substantially how those with disabilities were to be served. These changes expanded the roles of the vocational evaluator and impacted on how the roles were to be carried out. These new philosophies included the beliefs that individuals

with disabilities should be served in the most enabling environment, should be integrated into the community, and can be employed in the community given appropriate support services. Also, the system must change to meet the needs of the individual, and individuals have the right to guide and direct their own lives.

Overall, this historical period was characterized by many factors that facilitated the increased use of VE services in VR. The sites where assessment practices could be implemented grew, and technology was incorporated more into the evaluation process. For example, as computer technology continued to redesign and restructure jobs, the delivery of VR services in general and VE in particular was inevitably affected (Chan, Lam, Leahy, Parker & Wong, 1989). Special modifications to accommodate individuals with sensory impairments and with severe physical disabilities also became available. Assistive and adaptive devices were provided to these consumers, thus enabling them to become more independent and/or employed. Rehabilitation engineering services emerged from these technological developments. With the growth in technology, moreover, transition from school to work became an initiative of the Office of Special Education and Rehabilitation Services. This service delivery approach is now finding its way into various laws; it requires interagency cooperation, planning, and the development and sharing of VE information.

Highlighting all of the growth factors, however, was the continued progress towards a professional identity and the increase of formal training opportunities in VE. Professional bulletins and professional meetings at the national, regional, state, and local levels prompted more awareness of the assessment skills needed for career and employment exploration with diverse populations. Prior to 1967 there were no training programs for work evaluators other than short-term training programs. By the mid 1980s twelve institutions of higher education offered B.S. or M.S. programs with an emphasis in vocational assessment. Several other universities provided short-term or post-employment training.

#### **IV. Contemporary (Post-Modern) Era: 1990 to Present**

This period is characterized by a moving back to our roots—an authentic, community-based, person-centered assessment—and the impact of the Americans with Disabilities Act of 1990. The economy of the United States has changed from the Industrial Age to the In-

formation Age. Many jobs that were once in high demand have become obsolete. Basic computer literacy has become a necessity for many occupations. The greatest impact on the world of work over the past ten years has been technology. Some jobs that once required great physical strength are now performed with the assistance of tools and machines. Jobs that required routine repetitive activities, such as assembly line work, have been greatly reduced. Today's world of work requires workers to have a higher skill level than ever before in order to be competitive. The good news is that the same technologies have created an environment where many jobs can be performed from anywhere, eliminating the need to commute to a designated workplace. Because of the changing nature of modern employment, dramatically reduced job stability, and less personal fulfillment, younger workers may not appreciate or embrace the incentives for work that motivated previous generations.

The new incentives that are included in the understanding of "work ethic" may include an increasing number of external motivators, such as the demand for steady pay increases and fringe benefits to compensate for lack of job appeal and leisure time (McCortney & Engels, 2003). All of these changes have great implications for the process of VE. As always, it remains imperative that all involved in the VE process consider the physical and mental demands of an occupation; the changing skills and tasks, as well as the prospects for growth and continued employment.

The Americans with Disabilities Act of 1990 placed an emphasis on reasonable accommodations in testing. Such legislation facilitated the growth of assistive technology and its integration into VE. Also implied in the ADA of 1990 was the realization that the population of those with disabilities will need to be responsible for expanding their own capabilities. Non-discriminatory methods such as work samples, situational assessment, and on-the-job tryouts became more important. The interview process, always an important method, served as a critical juncture for vocational evaluators as they were called upon to use this and other methods—job analysis, non-discriminatory language in job descriptions, adaptations for worker differences—in helping businesses comply with the ADA (Peterson, 1991; Thomas, Bowers, Batten, & Reed, 1993). The 1997 Amendments to the Individuals with Disabilities Education Act, moreover, stipulated that VE is among the transition services necessary for students with a disability. Also, the Workforce Investment Act (WIA), and the Ticket to

Work and Work Incentives Improvement Act (TWIIA) urged a call to action by all VR systems, including VE.

Changes in the nature of employment and value of work continue to provide an impact on the development and expansion of vocational evaluator roles. Technological changes will continue to alter how jobs are performed, and the number of jobs in the sciences and information-handling services will continue to increase. Such basic abilities as reading, writing, and arithmetic will be even more important and become foundational for semi-skilled and skilled jobs. In jobs where change and implementation of change will be particularly important, the assessment of reasoning, problem-solving and analytic abilities will be vital. In the future, there will be an increased role for using adaptive devices early in the assessment process to minimize consumer limitations. Finally, advances in technology will continue to develop, encouraging the availability of virtual work samples, realistic cyber work environments, computer-based tests, and the use of computers as assistive technology tools. Vocational evaluations will be increasingly provided in self-contained mobile units with telecommunications capabilities to deliver real-time consultations.

A number of events have encouraged the development of new perspectives in VE and alternative methods of service delivery:

- A continued explosion of new revenue sources, such as insurance, employee benefits and rehabilitation in business and industry.
- VEWAA's position paper on the Role of Assistive Technology in the Vocational Assessment and Evaluation Process promoting attention to collaboration between rehabilitation engineers, technologists and/or assistive technology specialists to enhance performances in VE.
- The change in the nature of reported disabilities, with increased services to persons with head injury, stress-related conditions and other significant psychological problems.
- The provision of VE services to minority disabled populations, welfare-to-work and school-to-work populations, the dually-diagnosed and other under-served populations will take place.
- Increased attention in VE to such environmental/situational

factors as the consumer's family situation, employer and co-worker attitudes, accessibility, and community issues, such as available transportation, local economy, housing, training opportunities, and the consumer's support network.

- A broader use of integrated data. Psychosocial factors and socio-economic issues are explored as a comprehensive vocational assessment that takes the "whole person" into account to determine the interactive effects of the social-psychological-physical factors on employment and career choice.
- Criticism by other professionals that VE practices were not scientific—again, because they lacked the rigor of norms and standards.
- Politicization of VE in that some agencies and program administrators demanded vocational evaluators use limited (and often biased) instruments and methods and that they limit recommendations to those that best suited the parent agency (Murphy & Hagner, 1986).
- Values conflict between program administrators and evaluators when pressured to reduce the amount of time spent with individual consumers and increase the numbers served.
- Use of VE as a gate-keeping device in VR and workforce one-stop centers.

Simultaneously, VE systems and commercial work samples were expanded. Eventually, several systems emerged as popular and, it was hoped, provided VE as efficiently and effectively as possible.

VE practice has moved beyond systems to more authentic, work and community-based assessment practices due in part to the supported employment movement, consumer demands for choice, and the advocacy of vocational evaluators. Vocational evaluator roles have also evolved as the prevalent practices from VR settings were used, adapted, and expanded in other settings (Leconte & Neubert, 1987; McDaniel, 1986; Neubert, 1994).

In summary, federal legislation since 1990, innovative technologies, and insights learned from continued experience with diverse disability populations have provided many directives, which, in turn, have contributed to further developments in the VR field. Rehabilitation

engineering, the continued emphasis both on realism as a central concept in VE and shorter time periods for vocational assessment, and the reaching out to those with disabilities from different ethnic backgrounds to provide the most appropriate services, are dominant themes during this continuing historical period. It is a period that can also be characterized by “efforts to produce a consumer friendly assessment environment.” VE is becoming more of a partnership between the professional evaluator and the consumer. Legislation has provided the impetus to strengthen both roles; assessment practices will produce the outcomes of this working partnership.

### **Lessons Learned from History**

History can become an important educator, teaching future generations of evaluators lessons gained from providing services to different disability populations, attempting new approaches to shorten the gap between unemployment and the obtaining of a satisfying job, and the continual implementation of advances in technology. Some of the insights into how best to deliver assessment services to those with disabilities may only be the first step in the process of giving the consumer an “empowering experience” during the evaluation process. The following lessons emerging from legislation, the expansion of vocational evaluator roles, and the creative contributions of VR personnel may represent a stimulus for the continued success for the consumer in effectively choosing and maintaining desired employment.

***The practice of VE should not be identified with a particular evaluation or assessment tool.***

For many decades, the psychometric approach was integral to the vocational evaluation paradigm, and even today psychometric testing continues to be the most common evaluative method. Yet a review of history has revealed that this approach, as well as utilizing only one evaluation method, can be quite restrictive, especially for those who are severely disabled or who represent an ethnic minority. To develop an assessment relevant to consumer needs demands flexibility of both evaluator roles and evaluation methods. Also, because evaluation is being conducted in many settings, these sites may influence the type of evaluation used. To respond to diverse consumer needs and disability backgrounds necessitates a multi-model perspective to explore vocational/career potential. Such evaluation diversity creates a mosaic of different measurement patterns, indicating the dynamism and rel-

evance of the evaluation profession.

***Evaluators should take a leading role in the interpretation of legislative policy that is directly related to VE practice.***

Different historical periods may not only be characterized by innovative techniques, intensive concern for meeting standards of practice, and the growth of evaluation methodology, but also by periodic failure to communicate the assessment needs of the consumer to appropriate personnel or by avoiding the ramifications of the context or environment in which assessment services will be delivered. This neglect or misperception creates a gap when providing consumer-driven appraisal approaches. The vocational evaluator has often been “out-of-the-loop” when interpreting assessment implications of policy. Frequently those professionals who may best understand consumer needs and selected environmental limitations, such as staffing patterns of VR facilities, may not have any decisive role in implementing policy. “Front-line” professionals, given the opportunity to interpret policy, can optimize consumer-driven employment outcomes. In their role as advocates and disability experts, evaluators are usually aware of what assessment approaches can be the most relevant for the consumer. Having an initiating role in the interpretation of legislative policy can facilitate the useful implementation of evaluation methodologies.

***Vocational evaluation is still emerging as a profession.***

Autonomy has been a difficult road for vocational evaluators due to the restrictions on external funding, competition with other professional groups, and being employed within state agency supported settings (Sawyer, 1987). Frequently, external and internal political climates have diminished the importance of appraisal (Ayella & Leconte, 1987). But an evaluation service process, stimulated by technology, is continuing to evolve. Specialized training in the form of academic and in-service opportunities fuels distinctive skill development and consequent professional identity. The activities and contributions of national associations, with strong advocacy efforts for the continued establishment and relevance of a code of ethics are additional catalysts for professional growth in VE. Entrepreneurship among vocational evaluation professionals has significantly contributed to the growth and public recognition of VE. Also, there is an increase in qualified professionals who can practice VE, and marketing efforts are continuing to establish the professional society. Consequently, the status

of the VE professional will continue to evolve and grow through an awareness of the evaluator's importance in the rehabilitation process.

***The language that is used in the VE process defines the professional roles of the evaluator.***

Historically, VE has used language from many helping professions, such as psychology, occupational therapy, and engineering. Documents describing evaluation approaches developed and practiced for decades are sprinkled with such terms as “comprehensive, work simulation or samples, norms, reliability, and standardization.” Their usage has shown the connection of vocational evaluation to other human service disciplines and enhances the credibility of assessment practice. At the same time, paradoxically, they can inhibit the unique professional identity of evaluators. One of the characteristics of this identity is language usage distinct to the profession. Though in vocational assessment evaluators may utilize terms that are common and easily understood in measurement practice, these terms can also define the VE profession when working with those with disabilities. The future of VE in the disability field, however, will be characterized by not only the continued use of time-honored language, but also by the renewed emphasis on such terms as “consumer driven employment outcomes,” “community-based settings,” “disability specialist,” “vocational assessment technician,” and “assistive technology expert.” These terms will uniquely describe the role of vocational evaluators and identity the unique qualities of their profession.

***Federal legislation and funding are driving forces for the growth of the VE field.***

Historical documents have consistently underlined the importance of policy for establishing directions for VR growth, targeting underserved populations, and supporting professional training in appraisal methods and skill development. This awareness should stimulate the VE profession to market to relevant constituencies the importance and outcomes of their efforts and to reinforce the communication between these funding resources and VE service providers. Communication could facilitate further funding and the endorsement of the new paradigm in VE that offers a dynamic opportunity for consumers.

## **Historical Themes Encouraging the Development of a New Paradigm**

The proposed new paradigm emphasizes self-empowerment, self-determination, individuality, informed choice, targeting employment outcomes, accountability, and consumer involvement and decision-making. Yet certain threads in the fabric of VE history have been particularly apparent to suggest a newer, more dynamic pattern for assessment practice:

- The importance of the legislation since 1973
- The development of community-based settings for VE that provide the opportunity to reach out to under-served populations
- The entrepreneurship in VE practice, evident, for example, in work sample, supported employment, and situational assessment development, each of which encourages flexibility and diversity of evaluator roles and sensitivity to individual information needs and outcomes
- Re-occurring and changing labor market needs that imply particular attention to accompanying consumer needs and the further opportunity for informed choice
- The increased development of VE approaches during the last three decades that have considerably widened the range of assessment choices for the consumer

## **Conclusion**

Viewed from the legislative, professional growth, and consumer needs perspective, it is possible to identify how VE has evolved. The Rehabilitation Services Administration, located within the U.S. Department of Education, has played a role in the development of competencies needed by the vocational evaluator. RSA identified the skills and competencies needed and funded the training of vocational evaluators, both for short-term workshops and university-based programs. Actually, RSA was the only large federal agency to provide such funding. Professional autonomy for the vocational evaluator has been an episodic journey due to the restrictions of external funding, their employment status within state agencies, the competition from other professional settings, and the impact of advocacy groups seeking

specialized services. VE has made unique contributions to the lives of those with disabilities. The evaluator, notwithstanding different obstacles, has been the catalyst for these contributions.

Important to understanding the historical growth of vocational evaluation is to recognize the impact and impetus that federal legislation has had on this professional field. This impact, facilitated by funding provided by legislation, is evidenced by the following three items:

1. Increased funding supported the development or growth of VE units within VR agencies and encouraged the enhancement of assessment skills among vocational evaluators. Because of the available financial resources, VE as a separate and unique service was established within VR facilities.
2. The formulation of theoretical bases for developing approaches on how those with disabilities would be served led to new directions for assessment practice.
3. The extension of services and support resources within VR facilities for the evaluation of the consumer's employment potential, especially people with severe disabilities, increased services to disability populations that were traditionally underserved in VE.

Many events have impacted upon the successful development of the VE field. Many more changes or events will occur. As it has changed since first being recognized as an integral service in the VR process, VE will continue its evolution and be responsive to societal and individual needs.

## Self-Study Questions

1. The history of vocational assessment is characteristically which of the following developments:
  - a) mandates of legislation and growth of professionalism
  - b) changing of priority focus and expansion of eligible populations
  - c) supported employment
  - d) a & b
  - e) a, b, & c
2. (T/F) During the “Modern-Multi-Service Application Era: 1973–1990”, the use of the General Aptitude Test Battery (GATB) increased.
3. (T/F) The Americans with Disabilities Act of 1990 placed emphasis on reasonable accommodations which in turn facilitated the growth of assistive technology.
4. What event did not encourage the development of new perspectives on the delivery of vocational evaluation services:
  - a) change in the nature of repeated disabilities
  - b) increased attention in vocational evaluation to selected environmental factors
  - c) the broader use of integrated data
  - d) reduced funding in state agencies for the development or continuation
  - e) vocational assessment centers.
5. (T/F) One of the lessons learned from history is that the practice of vocational evaluation should be identified with a particular evaluation or assessment tool.

## Chapter Ten

# Moving Forward

This document has placed a strong emphasis on the value of a new paradigm in vocational evaluation (VE): not so new to a few who have been practicing using this framework for many years, but new to many who, for a variety of reasons, have maintained a practice of service reflective of earlier times in the field. Like most things, all aspects of a professional field do not remain static over time. New developments, resources, and procedures change to reflect new technologies, legislation, and consumer groups served. In order to best address the needs of consumers to attain their individual goal(s) in vocational rehabilitation (VR), as well as meet the requirements of legislative mandates, it is essential to strengthen VE in the public rehabilitation program and implement the new paradigm presented in this publication.

### **Legislative Requirements**

The 1992 and 1998 Amendments to the Rehabilitation Act, as well as proposed 2005 Amendments, mandate:

- Informed choice and empowerment,
- Consumer involvement
- Improved employment outcomes

- Performance standards

Since the new paradigm stresses consumer-driven employment outcomes through modifying the VE process to fit the consumer (not fitting the consumer to the VE process), as well as strong consumer participation and decision-making (the basis of empowerment, self-determination, informed choice, and consumer satisfaction), VE is vital to assisting state agencies to achieve and document the above mandated standards.

In addition to assisting the consumer, VE becomes more important to state agencies in addressing its overall accountability, both individually and corporately. Performance standards, including efficiency and effectiveness measures, related to helping the consumer achieve the VR goal, can easily be measured by including this service as an essential component in the VR process. The strong team approach directed by the evaluator, another characteristic of the new paradigm, incorporates the VR counselor and other disciplines (such as assistive technology, transition, career development, etc.), as necessary, into the VE process. This assures that the evaluation process will include the necessary services in order to assist the consumer in achieving a successful employment outcome reflective of true skills, abilities and potential, despite the severity of his or her disability. In turn, the VR agency has all of the specific details to document this successful outcome by way of data from the evaluation.

## **Implementation Models**

The above-mentioned federal mandates directly influence how we practice in the field, as well as trends that emerge. State VR agencies are faced with many challenges as they attempt to provide the most effective and efficient services to consumers, as well as address federal requirements. As a result, it is understood that these agencies may not be able to implement an ideal model of VE and assessment service delivery. However, in Chapter 8 of this document, several models and examples of effective VE programs are provided. The models range from using state VR agency staff to provide VE and career assessment services, to using community rehabilitation program vendors to provide the services, to using a combination of state agency personnel and community vendors. The examples provided represent different best practices in the field and demonstrate how VE and assessment programs around the country have been revamped in order to more closely integrate them into the VR process while focusing

on individual consumer assessment needs and informed choice. Administrators can use these examples of state agency models in order to determine what would work best in their state agency. An important consideration should be a way to tie assistive technology to VE and assessment in order to address the vocational needs of individuals with the most significant disabilities.

## **Future Trends**

### ***Training***

Despite the efforts of the Rehabilitation Services Administration (RSA) to provide universities with grants for VE training programs since 1967, they have been limited in number and appear to be getting even more limited due to fiscal constraints of the federal government. With only three new grants awarded for fiscal year 2004 by RSA, and a total of six other grants currently being funded by RSA through continued funding from awards made in previous years, this is an insufficient number of degree programs to educate graduate students in this specialty area. There is a desperate need for not only pre-service training, but post-service training programs as well, to educate both new and experienced VE personnel in the new paradigm. While it is imperative to educate new professionals entering the field, it is also essential to upgrade the knowledge, skills and abilities of those already practicing in the field. Therefore, it is necessary to increase funding for regional master's level long-term training grants, as well as short-term training programs for continuing education. Short-term training could be provided by existing training programs such as the general Regional Rehabilitation Continuing Education Programs (RRCEPs) or the Community Rehabilitation Program (CRP) RRCEPs. It also could be provided by Vocational Evaluation Long-Term Training Programs that have the specific VE expertise to readily make the transition to the new paradigm and offer immediate training opportunities. Regardless of who provides the short-term training, it must focus on the knowledge and skills areas of the new paradigm presented throughout this document, as well as a rationale for these changes.

All short-term and long-term VE training programs must have a focus on producing qualified people to serve consumers. Therefore, any and all training must be geared toward assisting participants to achieve and maintain the Certified Vocational Evaluator (CVE) credential. This international certification is administered by the Com-

mission on Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES), and assures the public that certified professionals have the knowledge and competencies to provide quality VE services. It also tells the public that individuals who hold the CVE credential follow a professional code of ethics based on widely accepted professional standards. Information about the CVE credential must be given to all training program participants with CVE continuing education credits made available for existing CVEs.

### ***Implications for Research***

Funding of a Research and Training Center on VE and Assessment is necessary in order to bring about a national focus on such an important component of the rehabilitation process and assist state agencies to better address some of the federal mandates. A concentrated effort on the development, implementation and dissemination of VE and assessment research studies is desperately needed in order to bring focused attention on the new paradigm through research and short-term training avenues. The short-term training component is necessary to help train already employed VE and assessment professionals and related personnel on the research findings, such as best practice models including methods of effectiveness and efficiency, as well as work with regional short-term training programs to provide additional training specific to a particular part of the country. While there is a body of knowledge in the field of VE and assessment, additional research is needed to focus on best practice models and efficacy of evaluation and assessment services. Determining the value of VE and assessment should be based on several key factors.

Factor One: The overall validity of VE must be looked at globally and not as it relates to individual instruments and techniques. The success of VE is not predicated on the validity of any one instrument, but on the collective validity of an aggregate of scores and information from a variety of sources. As a result, the most tangible evaluation variables that can be used to determine the success of the service are the recommendations contained in the report (Peters, Scalia, & Fried, 1993). These can be compared to information in a VR or transition plan as well as to various training or employment outcomes.

Factor Two: Studies must look at both positive and negative outcome information. It is not enough to determine if recommendations for employment or training do, in fact, lead to success. Studies must also ascertain what happens in cases where placement is not tied to recommendations (i.e., when recommendations are not fol-

lowed).

Factor Three: Outcome studies must look at how extensively report recommendations were used in planning, and if implementation of the plan led to success. Simply comparing outcome (successful or unsuccessful placement) to whether an evaluation was given may provide meaningful information, but it fails to consider the intent and substance of the report recommendations. Some evaluation reports may not recommend employment or training due to the complex nature of the disability and the critical need to address other personal and environmental barriers first. Another problem affecting outcome is the failure of the referral source to adequately use the report recommendations in planning and to follow through with the plan as developed (Brown, McDaniel & King, 1995; Gustin & Petterssen, 1978; Kosciulek, Prozonic & Bell, 1995). In this case, success is contingent upon the willingness, competence and motivation of the referral source to see to it that the plan is followed as written. In some situations, a lack of resources will also affect adherence to a plan.

Factor Four: Follow-up should also determine the impact of evaluation results on quality of life and satisfaction as seen by the consumer, family, friends, teacher, employer, co-workers, referral source, and other service providers. Improvement in employment factors such as job satisfaction, salary or wage earned, employment benefits, or in lifestyle factors such as living arrangements, transportation, community access, and personal/social networks, can also serve as useful quality of life indicators. This process goes beyond the objective data generated through a typical program evaluation to include more subjective, but personally meaningful, outcomes acquired through quality assurance studies.

There are two additional factors that affect the accuracy of outcome studies which rely on follow-up. The first factor relates to when, in the rehabilitation or transition process, the VE occurs (e.g., near the beginning or the end of service delivery). Evaluations offered early in the rehabilitation or transition process may relate better to service planning than those offered near the end of the process that can more definitively address placement. Follow-up should consider the types of recommendations made (planning for services or placement) in relation to when the evaluation was provided in the overall process. The second factor unduly affecting outcome is the competence of all of the providers and the quality of their services in meeting the needs of the consumer and referral source as specified in

the plan. For example, if an evaluation recommendation and a VR plan address a particular need for work adjustment, then the success of adjustment services (and the overall VR plan) is contingent upon the delivery of appropriate and effective services by competent and caring staff.

VE has proved its value within the VR and transition process, and has proven to be a useful tool in accurately guiding planning and placement activities. Research suggests that the more evaluation recommendations are used in planning, the greater the chances of success in training and job placement. The efficiency and effectiveness of evaluation services cannot be fully determined by simply examining the validity of the instruments and techniques used in VE. Ensuring that evaluation recommendations are thoroughly used in planning and placement is the key to overall success for consumers, VR counselors, employers, and vocational evaluators.

### ***Information Resources***

The Materials Development Center (MDC) at the University of Wisconsin-Stout has been long known for its development and dissemination of VE and assessment materials. At the current time, they have disbanded these efforts due to a lack of funding. Written materials developed by MDC have been provided to the Oklahoma National Clearinghouse for Rehabilitation Training Materials. These materials would be better accessed and utilized through online and electronic distribution. VE and career assessment resources, as they relate to people with disabilities, are necessary for those learning about the field in education and training programs as well as those employed in the field who are in need of up to date materials to assist them in providing effective and efficient services. Funding needs to be provided so that the necessary up to date resources are readily available.

### ***Transition***

VE and career assessment services for transition students have been provided primarily by special education and vocational education programs on an inconsistent basis with little to no involvement by the state VR agency prior to students' leaving the school system. Earlier involvement by the state agency is necessary in order to assure continuity of services and, most importantly, an effective and efficient employment outcome.

### ***Professional Organizational Partnerships***

The field of VE and assessment has suffered from a lack of widespread marketing and public relations. The majority of the general population is well aware of many human service and education fields, but VE tends not to be one of them. Since VE and assessment is an interdisciplinary field, professional organizations at the national level need to organize and promote the field in partnership with each other. For example, VECAP (VE and Career Assessment Professionals), formerly VEWAA (VE and Work Adjustment Association), at the national level organized an Interdisciplinary Council on VE and Assessment in which a position paper was developed, agreed upon and promoted by representatives of eleven different rehabilitation, disability and education organizations that detailed “Guiding Principles” and “Competencies” for practice in the field of VE and assessment (Smith, Lombard, Neubert, Leconte, Rothenbacher, & Sitlington, 1995). While these efforts focused positive attention on the value and importance of VE and assessment by professionals in a wide variety of organizations who provide and/or utilize these services with special needs populations, more needs to be done to promote the field to a larger audience with emphasis on the new paradigm. This should not be difficult since work is a major part of the life of most people, and VE and assessment focus on career planning and decision-making resulting in employment outcomes.

When VE and assessment are recognized as having social value and worth to the general population, the service will be viewed as important and used by everyone when needed (Thomas, 1997). Although inactive at the current time, the Interdisciplinary Council on VE and Assessment could be reinstated by VECAP and used to promote various implementation strategies. Regardless of the organizations involved, key professional organizations who have a strong interest in VE and career assessment are encouraged to collaborate in order to promote the new paradigm to the general public in some kind of organized media campaign.

### **Action Plan**

There are several audiences for which the new paradigm is intended. They include VR administrators and supervisors, consumers, vocational evaluators (VE), vocational rehabilitation counselors (VRC), assistive technology (AT) specialists, VR training staff, VE and VRC educators, RSA, WIA, trade schools, and professional organiza-

tions. A discussion for implementing an action plan with each of the above audiences follows. At the end of the chapter is an action plan summarizing all of this information.

### ***VR Administrator/Supervisor***

The state VR administrator and supervisor has a huge responsibility to make sure that consumers are receiving the best vocational services within budgetary limits, as well as to meet federal regulations. As indicated earlier in this chapter, this new paradigm focuses on consumer-driven services and addresses an abundance of requirements, including informed choice, consumer satisfaction, better employment outcomes and performance standards. The VR administrator and supervisor, along with their staff, need to identify how best practices of the new paradigm will be used within the agency and promote partnerships within and outside of the organization so that the new paradigm has every opportunity to produce the desired results.

### ***Consumer***

Current and potential consumers should have a general understanding of what VE and assessment are. These terms need to be incorporated into mainstream society so that the focus is on a larger and broader audience rather than simply practitioners in the field or current people with disabilities and their families who have participated in a successful VE or assessment experience (Thomas, 1997). The consumer must be able to learn about the value of VE services that focus on the new paradigm through rehabilitation counselors, and local and national public relations announcements.

### ***Vocational Evaluator***

All vocational evaluators employed in the field need to be exposed to the new paradigm. Some may already be familiar with it but the vast majority are not. These professionals need to understand what are best practices of the new paradigm, and work within their own organization, as well as with state VR agency personnel and other agencies that serve state VR consumers, to apply and implement it. In doing so, members of the VE team must include agency administrators and supervisors as well as professionals from a wide variety of disciplines such as VR counseling, assistive technology, transition, etc. Methods for evaluators learning about the new paradigm include short-term training programs offered by universities and professional associations, presentations and workshop training programs offered at conferences, and reading this IRI document at the sponsor's website

with advertisements of its availability placed through VE certification bodies and professional organizations.

It is also extremely important for vocational evaluators to help promote this new paradigm by conducting a local media campaign that could include television and/or radio public service announcements, articles and ads in newspapers and local community newsletters, distributing brochures in the community, publicizing the services on the internet, and speaking to local partner groups and potential consumer groups.

### ***VR Counselor***

The VR counselor plays a major role in assisting the consumer during the rehabilitation process. The vocational evaluator can greatly assist the VR counselor and, most importantly, consumers working with the counselor, to achieve improved employment outcomes. Therefore, it is necessary for VR counselors to receive some education or training regarding the new paradigm. This can be achieved with the assistance of VR agency training staff through workshops and presentations at conferences, on-campus courses at local universities, or online educational programs. VR counselors need to promote partnerships with local VE and career assessment programs who use the new paradigm as a basis for service delivery, and leverage resources with other providers using the new paradigm.

### ***AT Specialist***

The AT specialist plays an important role in the new paradigm, especially when it comes to evaluating and assessing individuals with the most severe disabilities. Identification of appropriate AT services can make a major difference in whether or not a successful employment outcome will occur. Forging partnerships with other members of the VE team is important in order for all parties to effectively utilize AT expertise. Best practices are addressed in this publication and AT personnel need to have access to it, as well as other training or educational opportunities to fully implement the new paradigm.

### ***VR Training Staff***

Training staff at the state agency level not only need to be aware of the new paradigm but also promote training opportunities for both VE and VR counseling staff within their organization. It is not enough for direct service professional staff to feel comfortable with services that are already in place. VR training staff also must provide training resources for improving the existing services. This can be ac-

complished through organizing in-service training programs as well as opportunities for short-term training and semester-long courses. The General RRCEPs and the CRP RRCEPs, funded in each federal region of the United States, can be a great resource for providing many of these training opportunities for state agency personnel as well as for community rehabilitation program staff who serve consumers from the state agency.

### ***VE/VRC Educators***

VE and rehabilitation counselor educators need to become intimately familiar with details of the new paradigm in order to incorporate it into their teaching. A complimentary copy of this IRI publication should be distributed to every current graduate program in VE and VR counseling funded by RSA. In addition to on-campus and online assessment courses within RSA Long-Term Training Grant Programs, this information must be emphasized in any short-term training programs that may be funded or developed. Educators who are leaders in the field should make presentations on the new paradigm at national, regional and state conferences in order to assist in the dissemination of the information.

All training programs should make participants aware of the CVE credential administered by CCWAVES and provide information regarding the importance of national certification standards in vocational evaluation. In addition, short-term training programs should provide CVE credits for those who already hold the credential and need to maintain their certification.

This new paradigm is a timely research topic; and educators are encouraged to conduct research and write about various aspects of the new paradigm, including its impact. Such articles should be published in a wide range of professional publications including those for vocational evaluators, rehabilitation counselors, special education teachers, vocational education teachers, job development specialists, assistive technology specialists and VR administrators.

### ***RSA***

The Rehabilitation Services Administration (RSA) has provided funding for VE training programs at the graduate level since 1967. With this funding on a downward cycle, we recommend that RSA help promote this new paradigm in the following ways:

- Offering grant opportunities for short-term training for current practitioners in the field, and increasing opportunities for

long-term training for individuals who enroll in graduate VE programs in each region of the country, in order to disseminate the new paradigm on a widespread basis;

- Rewarding new training grant applicants who incorporate the new paradigm into their grant proposals with a greater number of points in evaluating their proposal for possible funding;
- Distributing a complimentary copy of this IRI publication to every current graduate program in VE and rehabilitation counseling in the country;
- Developing a VE and assessment policy for education and training programs which stresses the importance of the new paradigm;
- Initiating an RFP for a Research and Training Center to include development of empirical research studies dealing with the effectiveness and efficiency of VE, as it relates to the new paradigm, as well as up to date resources for use by training programs and practitioners; and
- Promoting partnerships with federal partners to promote the awareness, implementation and evaluation of the new paradigm.

### ***Workforce One-Stop Centers***

By passing the Workforce Investment Act (WIA) of 1998, Congress signaled a desire to consolidate and streamline the nation's employment services by establishing a system of "One-Stop" service centers where individuals, with and without disabilities, could receive comprehensive employment assistance services. The Act required the establishment of state and local Workforce Investment Boards, and mandated that related programs, including the public VR system, participate in the system. WIA defines core, intensive, and training services to include career exploration and vocational assessment in a suite of potential services. The initial assessment of skills, aptitudes, abilities, and supportive service needs are identified as part of the core services made available to clients of the public workforce system (27<sup>th</sup> Institute on Rehabilitation Issues, 2001). While a partner-

ship between VR and one-stop centers has been established with this legislation (i.e., each state is required to develop a memorandum of understanding that clarifies the relationship), opportunities for additional partnering at the state and local levels is suggested so that both groups benefit from each other's knowledge, skills, and resources. In a time of limited resources, this is essential as a cost-effective means for direct consumer services. One-stop center personnel must have access to the new paradigm document and training in regard to assessment activities, including the use of AT and accessibility issues.

### ***Schools***

Special education and vocational education programs serve students with disabilities and, as discussed previously in this publication, are very much involved in transitioning students from school to work. In addition to identifying best practices for VE and assessment services within the school system, they need to continue to promote partnerships and leverage resources with VR, WIA and other employment programs. The Council for Exceptional Children (CEC) and the National Association of State Directors of Special Education (NASDSE) are two school-based professional groups with which VR and other partners should promote collaboration regarding this new paradigm. These groups, as well as others who participate in or conduct national, regional and state transitions conferences, are great resources for helping school personnel to become knowledgeable about the new paradigm.

### ***Professional Organizations***

The field of VE and assessment is an interdisciplinary field that has widespread value to the general population when needed. It is in desperate need of promotion on a national level. Professional organizations that utilize and/or conduct VEs and assessments are encouraged to collectively conduct a national campaign to get the message out to the general population. Implementation of a national interdisciplinary educational campaign can be accomplished by employing the following suggestions:

- Conduct public service television and radio announcements with rehabilitation, education and workforce representatives as well as consumers participating.
- Place advertisements in local, state, and national newspapers.
- Insert a flyer in local newspapers, grocery store bags and, per-

haps, bank account statements.

- Place billboard advertisements in strategic locations within major cities.
- Initiate a national television commercial.

It is obvious that funds will be needed for some of these strategies. Funding can be explored with professional organizations; certification organizations; VE and/or assessment software and instrument companies; local rehabilitation, education and workforce agencies; and through grant sources.

Professional organizations also need to educate their own members with regard to the new paradigm. Participants who participated in this IRI need to ensure that the new paradigm is presented at a variety of national, regional, and state conferences. In addition, articles on the new paradigm should be written for journal and newsletter publications in a variety of professional fields that utilize VE and assessment.

## Summary of Action Plan for Implementing the New Paradigm

Audience	Action
VR Administrator\Supervisor	<ul style="list-style-type: none"> <li>• Identify, with staff, which best practices of new paradigm will be used within agency to meet federal mandates and performance standards;</li> <li>• Promote usage of new paradigm with state agency personnel;</li> <li>• Promote partnerships outside of agency, if service is to be purchased externally, with organizations committed to using new paradigm</li> </ul>

Audience	Action
Consumer	<ul style="list-style-type: none"> <li>• Learn about the value of the new paradigm through a rehabilitation counselor and/or local ads and public service announcements;</li> <li>• Understand where and what kinds of VE services are available in local area</li> </ul>
Vocational Evaluators	<ul style="list-style-type: none"> <li>• Read 30<sup>th</sup> IRI document on “A New Paradigm for VE”;</li> <li>• Participate in training or educational program to learn application of best practices of the new paradigm;</li> <li>• Identify, apply and implement best practices of new paradigm in local community in collaboration with other VE team members;</li> <li>• Promote new paradigm within state rehabilitation agencies and other agencies that serve state rehabilitation consumers;</li> <li>• Promote VE services using the new paradigm within local community through public relations campaign</li> </ul>

Audience	Action
VR Counselor	<ul style="list-style-type: none"> <li>• Participate in training or educational program to become knowledgeable about new paradigm;</li> <li>• Identify all VE resources available in local community that use the new paradigm;</li> <li>• Promote partnerships with VE programs that use the new paradigm and understand its importance to the state agency</li> </ul>
AT Specialist	<ul style="list-style-type: none"> <li>• Participate in training or educational program to become knowledgeable about new paradigm;</li> <li>• Identify, apply and implement best practices related to assistive technology within new paradigm;</li> <li>• Develop partnerships with VE service providers</li> </ul>
VR Training Staff	<ul style="list-style-type: none"> <li>• Become aware of new paradigm and its significant impact on consumer outcomes;</li> <li>• Provide agency staff with Training or educational opportunities to make effective and efficient use of VEs using new paradigm;</li> <li>• Collaborate with General RRCEP and CRP RRCEP to provide short-term training and technical assistance opportunities</li> </ul>

Audience	Action
VE/VRC Educa- tors	<ul style="list-style-type: none"><li>• Read 30<sup>th</sup> IRI document on “A New Paradigm for VE”;</li><li>• Incorporate new paradigm into all graduate VE and assessment courses;</li><li>• Develop online and short-term training options for employed rehabilitation professionals to learn about new paradigm;</li><li>• Conduct research on new paradigm</li></ul>

Audience	Action
RSA	<ul style="list-style-type: none"> <li>• Offer short-term training grant opportunities for current practitioners in the field to learn about new paradigm;</li> <li>• Increase long-term training grant opportunities for master's level students;</li> <li>• Reward new training grant applicants who incorporate new paradigm into proposal with a greater number of funding evaluation points;</li> <li>• Distribute a complimentary copy of this IRI document to every graduate program in VE, rehabilitation counseling and special education;</li> <li>• Fund a Research and Training Center in VE;</li> <li>• Develop a VE and assessment policy for education and training programs which stresses the importance of the new paradigm;</li> <li>• Partner with WIA staff to promote new paradigm</li> </ul>

Audience	Action
<i>WIA</i>	<ul style="list-style-type: none"><li>• Read 30<sup>th</sup> IRI on ‘A New Paradigm for VE’;</li><li>• Participate in training or educational program to become knowledgeable about new paradigm including the use of assistive technology and accessibility issues;</li><li>• Partner with state and local VR programs in using new paradigm</li></ul>
Schools	<ul style="list-style-type: none"><li>• Participate in training or educational program to learn about best practices of new paradigm for use with transition students;</li><li>• Partner with DCDT, NASDSE, and other national, regional and local transitions groups to develop training and collaborative opportunities in regard to new paradigm;</li><li>• Identify, apply and implement best practices of new paradigm within local community in collaboration with other VE team members</li></ul>

Audience	Action
Professional Organizations	<ul style="list-style-type: none"> <li>• Promote awareness and education activities to publicize new paradigm including workshops and presentations at national, regional and state conferences with a variety of interdisciplinary professional organizations;</li> <li>• Publish articles in professional journals and newsletters related to new paradigm;</li> <li>• Conduct public service television and radio announcements with rehabilitation, education, workforce and consumer representatives;</li> <li>• Place ads in local, state and national newspapers;</li> <li>• Insert flyers into local newspapers, grocery store bags and bank statements;</li> <li>• Initiate a national television commercial</li> </ul>

## Conclusion

There is much to learn from the new paradigm. If disseminated to and used by a wide variety of audiences, it has the potential to dramatically change the way VE and career assessment services are perceived and conducted, and improve services to consumers. VE does make a difference! With better employment outcomes that are consumer driven and a focus on informed choice, empowerment, consumer satisfaction, and effective and efficient services, the new paradigm can improve the public VR program and help each state rehabilitation agency to meet federal requirements.

## Self-Study Questions

1. Strengthening vocational evaluation in the public rehabilitation program by implementing the new paradigm is important because it assists the state agencies to address:
  - a) improved employment outcomes
  - b) informed choice and empowerment
  - c) consumer satisfaction
  - d) performance standards
  - e) all of the above
2. Additional research in vocational evaluation must focus on:
  - a) efficacy of evaluation and assessment services
  - b) best practice models
  - c) validity of psychometric tests
  - d) a and b
  - e) a and c
3. (T/F) When vocational evaluation and assessment are recognized as having social value and worth to the general population, the service will be viewed as important and used by everyone when needed.
4. Implementation of the new paradigm is intended for a multitude of audiences including:
  - a) VR Administrators, VR Counselors, RSA
  - b) Vocational Evaluator, AT Specialists, Consumers
  - c) VE/VR C Educators, VR Training Staff, Schools
  - d) all of the above
  - e) a and b only
5. Future trends in vocational evaluation include issues surrounding:
  - a) University education and training programs
  - b) resources for the field
  - c) professional organizational partnerships
  - d) all of the above
  - e) a and c only

# Bibliography

- 1978 Amendments to the Rehabilitation Act of 1973, Pub. L. No. 95-602, 29 U.S.C. Sec. 700 et seq.
- 1992 Amendments to the Rehabilitation Act, Pub. L. No. 103-73, 20 U.S.C. 732 et seq.
- 1998 Rehabilitation Act Amendments (Title IV of the Workforce Investment Act of 1998), Pub. L. No. 105-220, 29 U.S.C. Sec. 720 et seq.
- Ahlers, M. (2002). *Vocational Evaluation Program Manual*. Kansas Rehabilitation Services.
- Ahlers, M. (2003). *Rehabilitation Services Career Development Centers Standards for Achieving Quality Outcomes*. Vocational Evaluation and Supported Education Program Manual. Salina, KS: Kansas Rehabilitation Services.
- Alberta Learning. (2002). *Career and Life Management: Guide to Implementation*. Edmonston, Alberta. The Crown in Right of Canada
- American Psychological Association. (August 19, 1994). *Resolution on facilitated communication by the American Psychological Association as adopted in council, August 14, 1994, Los Angeles CA*. Retrieved from the World WideWeb <http://soeweb.syr.edu/thefci/apafc.htm>.
- American with Disabilities Act of 1990, Pub. L. No. 101-336, 42 U.S.C. Sec.12101 et seq.
- Annikeris. (2004). *A resource guide for students, teachers and parents: Glossary*. Retrieved from the World Wide Web April 5, 2004 <http://www.annikeris.com/glossaryf.html>.
- Anthony W., & Jansen, M. (1984). Predicting the vocational capacity

- of the chronically mentally ill. *American Psychologist*, 39, 537-544.
- Architectural and Transportation Barriers Compliance Board  
Electronic and Information Technology Accessibility Standards,  
36 C.F.R. Part 1194 (2000).
- Arditti, A. (2004). *Making text legible: Designing for people with partial sight*. Retrieved 03/31/2004 from the World Wide Web <http://www.lighthouse.org/printleg.htm>.
- Arthur, S., Bjorlie-Ellis, J., Collins, S., Colyer, N.L., Denton, T., and Smith, F. (submitted for publication). The impact of language and culture on vocational assessment. *The Journal for Vocational Special Needs Education*.
- Ashley, J. & McGuire-Kuletz, M. (1999a). Integrating rehabilitation technology into the vocational assessment process. In R. R. Fry (Ed.), *The Issues Papers: Ninth National Forum on Issues in Vocational Assessment*, 231-240. Menomonie, Wisconsin: Materials Development Center, University of Wisconsin Stout.
- Ashley, J. & McGuire-Kuletz, M. (1999b). Development and implementation of the virginia evaluation customer satisfaction process. In R. R. Fry (Ed.), *The Issues Papers: Ninth National Forum on Issues in Vocational Assessment*, 271-279. Menomonie, Wisconsin: Materials Development Center, University of Wisconsin Stout.
- Ashley, J., O'Brien, M. & McGuire-Kuletz, M. (in press). *Vocational evaluation and assessment: A state vocational rehabilitation administrator's perspective*. Washington, D.C.: The United States Department of Education, Office of Special Education and Rehabilitative Services.
- Austin, J.T. (1999). *Culturally sensitive career assessment: A quandary*. (Digest No. 210). Columbus, OH: ERIC Clearinghouse on Adult Career and Vocational Education. (ERIC Document Reproduction Service No. ED434246)
- Ayella, K.P., & Leconte, P. (1987). The professionalism of the vocational evaluator: Changing roles, changing responsibilities. In R.R. Fry (Ed.), *The Issues Papers: Fourth National Forum on Issues in Vocational Assessment* (pp. 19-25). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- Barrett, H. C. (1997). *Collaborative Planning for Electronic Portfolios: Asking Strategic Questions*. University of Alaska

Anchorage.

- Barrett, H.C. (2001). Electronic portfolios. Chapter in *Educational Technology; An Encyclopedia*, ABC-CLIO. Retrieved from <http://electronicportfolios.com/portfolios/encyclopediaentry.htm>
- Barrett, H. C., Carney, J. M., McCoy, A. H., & Wieseman, K. C. (2004, April). *Setting an Agenda for Research on Electronic Portfolios: Past Practices and New Directions*. In H. C. Barrett (Chair), *Setting an Agenda for Research on Electronic Portfolios: Past Practices and New Directions*. Symposium conducted at the annual meeting of the American Educational Research Association, San Francisco, CA. Retrieved June 23, 2004, from: <http://electronicportfolios.com/aera/index.html>.
- Benz, M.R., Johnson, D.K., Mikkelsen, K.S., & Lindstrom, L.E. (1995). Improving collaboration between schools and vocational rehabilitation: Stakeholder identified barriers and strategies. *Career Development of Exceptional Individuals*, 18(2), 133-144.
- Berra, Yogi. (1998). *I Really Didn't Say Everything I Said*. New York: Workman Publishing.
- Binet, A. & Henri, V. (1895). Psychology of the individual. *L'Annee Psychologique*, 2, 411-465.
- Bolton, B. (Ed.) (1980). *Rehabilitation Client Assessment*. Baltimore: University Park Press.
- Bolton, B. (Ed). (2004). *Handbook of measurement and evaluation in rehabilitation*. Gaithersburg, MD: Aspen Publications.
- Bond, G.R., & Dietzen, L.L. (1993). Predictive validity and vocational assessment: Reframing the question. In R.L. Glueckauf, L.B. Sechrest, G.R. Bond & E.C. McDonel's (Eds) *Improving Assessment in Rehabilitation and Health*. Newbury Park CA: Sage.
- Bowers, C., & McKenna, M. (1994). Editorial: Keep your eye on the prize. *Vocational Evaluation and Work Adjustment Bulletin*, 27(4), 110.
- Bowers, C., Schuster, D.L., & Smith, F.G. (1989). Professional advocacy in vocational evaluation and assessment. In R.R. Fry (Ed.), *The Issues Papers: Fourth National Forum on Issues in Vocational Assessment* (pp. 33-39). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.

- Boyer-Stephens, A., Waechter, D., & Newman, I. (1999). Analysis of qualitative aspects of assessment of minimum competencies for entry level vocational evaluators: judgments of experts. *Vocational Evaluation and Work Adjustment*, xx, 23-34.
- Boyett, Joseph H. (2000). *21<sup>st</sup> Century Workplace Trends*. Alpharetta, GA.:Boyett & Associates.
- Brown, C., McDaniel, R., & King, W. (1995). The role of vocational evaluation in the rehabilitation process. *Vocational Evaluation and Work Adjustment Bulletin*, 28, 91-98.
- Brown, Judith O., McCrink, Carment, Maybee, Richard. (2003). What Employers Want: How Portfolio Development Fosters Leadership and Critical Thinking in the Workplace. Paper presented at the 84<sup>th</sup> Annual Meeting of the American Educational Research Association (AERA) April 21-25, 2003. [Eric Document 478 420.]
- Bureau of Labor Statistics (2000, Summer). *Futurework: Trends and challenges for work in the 21<sup>st</sup> century*. Occupational Outlook Quarterly.
- Cambridge, B. L., Kahn, S., Tompkins, D.P., & Yancey, K. B. (Eds.) (2001). *Electronic portfolios: Emerging practices in student, faculty, and institutional learning*. Washington, DC: American Association for Higher Education.
- Chan, F., Lam, C.S., Leahy, M.J., Parker, H. J. & Wong, P.W. (1989). Computer applications in vocational evaluation: Current developments and future direction. *Vocational Evaluation and Work Adjustment Bulletin*, 22 (3), 109-115.
- Chang, C.Y. (2001). *Cross-cultural assessment: A call for test adaptation*. Association for Assessment in Counseling Newsnotes Article. Retrieved January 9, 2004, from <http://aac.ncat.edu/news-notes/y99sum1.html>.
- Clark, G.M. (1998). *Assessments for Transition Planning*. Austin TX:Pro-Ed.
- Cobb, B., Halloran, W., Simon, M., A. Norman, M., & Bourexix, P. (1999) *Meeting the needs of youth with disabilities: Handbook for implementing community-based vocational education programs according to the fair labor standards act. Second edition*. National Transition Network, Minneapolis, MN.; Minnesota Univ., Minneapolis. Inst. on Community Integration; Study Group, Inc., Kill Devil Hills, NC. (ED439565)
- Coffey, D., Hansen, G.M., Menz, F.E., & Coker, C.C. (1978). *Voca-*

- tional evaluator role and function as perceived by practitioners and educators.* Menomonie, WI: Stout Vocational Rehabilitation Institute.
- Cole, Terry A. (2001). Vocational Assessment & Employment: What Makes The Difference. *The Issues Papers, Tenth National Forum on Issues in Vocational Evaluation, Assessment, and Work Adjustment.* University of Wisconsin-Stout, Materials Development Center.
- Collard, B, Epperheimer, J. W., and Saign, D. (1996). Career resilience in a changing workplace. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, 1996. (ED 396 191)
- Commission on Accreditation of Rehabilitation Facilities (CARF). (2003). CARF employment and community services standards manual. Tucson, AZ: Author.
- Commission on Certification of Work Adjustment and Vocational Evaluation Specialists. (2003). *CCWAVES standards and procedures for certification in vocational evaluation.* Rolling Meadows, IL.
- Cooper, S.C. (December, 1997). A glossary of some communication methods used with deaf-blind people. *Views*, 14, no. 1, 6-7.
- Cox, A. (2001). The application of portfolio assessment in vocational evaluation and assessment. In R. R. Fry (Ed.), *The Issues Papers, Tenth National Forum on Issues in Vocational Evaluation, Assessment, and Work Adjustment.* Menomonie, WI: University of Wisconsin-Stout, Materials Development Center.
- Cremo, J.M. (1997). *Alternative education and at-risk youth: Shifting the paradigm of vocational assessment.* In R.R. Fry (Ed.), *The Issues Papers: Eighth National Forum on Issues in Vocational Assessment* (pp. 147-151). Menomonie, WI: University of Wisconsin-Stout, The Rehabilitation Resource.
- Crippled Children's Association of South Australia (CCASA). (2004). Augmentative & alternative communication. Retrieved April 5, 2004 from [http://www.cca.org.au/content.asp?p=64#types\\_of\\_ac](http://www.cca.org.au/content.asp?p=64#types_of_ac)
- Cross, T. L. et al. (1989). *Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed.* Washington, D.C.: CASSP Technical Assistance Center, Georgetown University Child Development Center.
- Crow, S.H. (1973). *Positions on the practice of vocational evaluation.* VE-

- WAA Project Year One. Vocational Evaluation and Work Adjustment Association, Wash. D.C.
- Center for Rehabilitation Technology Services. (1994). *Rehabilitation technology services in vocational rehabilitation agencies: General report of findings*. Columbia, SC: Author
- De l'Aune, W. R., Williams, M. D., & Welsh, R. L. (1999). Outcome assessment of the rehabilitation of the visually impaired. *Journal of Rehabilitation Research and Development*, 36 (4). Retrieved December 15, 2005 from <http://www.var.org/jour/99/36/4/delaune.htm>.
- Dew, D. (Ed.) (1999). *Improving employment outcomes for persons who are deaf and low functioning (LFD): Report from the Study Group: Serving Individuals who are Low-Functioning Deaf*. Washington, DC: George Washington University. Retrieved from <http://www.uark.edu/depts/rehab-res/publications.html>
- Dew, D., McGuire-Kuletz, M., & Alan, G. (Eds.) (2001). 27<sup>th</sup> *IRI providing vocational rehabilitation in a workforce environment*.
- Dewey, J. (1938, 1963). *Experience and education*. (Kappa Delta Pi Lecture Series). New York: Collier Books, Macmillan Publishing Company.
- Dixon, K. A., Kruse, D. & Van Horn, C. E. (2003, March). Restricted access: A survey of employers about people with disabilities and lowering barriers to work. *Work trends: Americans' attitudes about work, employers and government*, 3(6), John J. Heldrich Center on Workforce Development, Rutgers, The State University of New Jersey.
- Dowd, L. (1993a). Professional contacts for evaluators' expanding roles. In R.R. Fry (Ed.), *The Issues Papers: Fourth National Forum on Issues in Vocational Assessment* (pp.11-18). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- Dowd, L. (Ed.) (1993b). *VEWAA Glossary of terminology for vocational assessment, evaluation and work adjustment*. Menomonie, WI: University of Wisconsin-Stout, Materials Development Center.
- Dowd, L.R., & French, A.C. (1991). Collaborative effort gets results. *Vocational Evaluation and Assessment Bulletin: Newsletter of the Collaborative Vocational Evaluation Training and Career Assessment Emphases*, 5(1), 8-10. Washington, DC: George Washington University.

- Education for All Handicapped Children Act of 1975, P.L. 94-142, 20 U.S.C§ 1400 et seq.
- Ellsworth, S., & Noll, A. (1978). *Vocational evaluators in school settings: Task analyses, certification, qualifications, and status data*. Menomonie, WI: University of Wisconsin-Stout, Stout Vocational Rehabilitation Institute.
- Enders, A. (2002). *Technology and the employment of persons with disabilities*. Rural Institute on Disabilities, University of Montana, Preliminary Draft.
- Ezell, D. & Klien, C. (2003). Impact of portfolio assessment on locus of control of students with and without disabilities. *Education and Training in Developmental Disabilities*, 38(2), 220-228.
- Facilitated Communication Institute. (2004). The Facilitated Communication Institute. Retrieved April 5, 2004 from <http://soeweb.syr.edu/thefci/about.htm#Research>:
- Fielding, L. (April, 1996). Autism: Communication and behavior links. *Four Runner*, a publication of the Severe Disabilities Technical Assistance Center (SD TAC) at Virginia Commonwealth University, Vol. 11 (7).
- Flexer, R. W., Simmons, T.J., Luft, P. & Baer, R.M. (2001). *Transition planning for secondary students with disabilities*. Upper Saddle River, NJ: Prentice Hall.
- Flynn, C.C., & Clark, M. C. (1995). Rehabilitation technology assessment practices in vocational rehabilitation agencies. *Assistive Technology*. Vol. 7.2 RESNA Press. 111-118.
- Fourteenth Institute on Rehabilitation Issues. (1987). *The use of vocational evaluation in VR*. Menomonie, WI: Research and Training Center, University of Wisconsin-Stout.
- Friend, M., & Cook, L. (2003). *Interactions: Collaboration skills for school professionals*. Boston: Allyn and Bacon.
- Fry, R. & Bottlebrush, K. (1988). *VEWAA glossary: A collection of terms and definitions of special importance to evaluation and work adjustment personnel*. Menomonie, WI: Materials Development Center, Stout Vocational Rehabilitation Institute, University of Wisconsin-Stout.
- Galvin, J. & Phillips, E. (1990). *What is Appropriate Technology?* Washington, DC: National Rehabilitation Hospital, Rehabilitation Engineering Center.
- Genishi, C. (1998). *Young children's oral language development*. Urbana, IL: ERIC Clearinghouse on Elementary and Early Child-

- hood Education. (ERIC Document Reproduction Service No. ED301361).
- Goode, T. (2001). *Definitions of cultural competence*. Washington, D.C.: National Center for Cultural Competence, Georgetown University Child Development Center
- Grosser, D., Schmitt, T. & Scott, N. (1993). Follow-up—A look at long term results from school-based vocational evaluation. In Fry, R. & Garner, W. (Eds.), *The Issues Papers. Sixth National Forum on Issues in Vocational Assessment* (pp. 311-314). Menomone, WI: University of Wisconsin-Stout, Materials Development Center.
- Gustin, Q., & Petterssen, R. (1978). From vocational evaluation to job training: What can go wrong—a case study. *Vocational Evaluation and Work Adjustment Bulletin*, 11, 23-28.
- Haché, L, Redekopp, D, & Jarvis, P. S. (2000). *Blueprint for life work designs*. Memramcook, New Brunswick: National Life Work Center.
- Hall, E.T. (1966). *The hidden dimension*. Garden City, NY: Doubleday.
- Hall, E.T. (1977). *Beyond culture*. Garden City, NY: Anchor Press/Doubleday.
- Hallenbeck, P., & Campbell, J. (1975). Evaluator recommendations and subsequent performance: A follow-up of work evaluation clients. *Vocational Evaluation and Work Adjustment Bul*, 8, 21-27.
- Hamilton, M..R. (2003). *The role and function of certified vocational evaluation specialists: A survey of practice in North America*. Unpublished dissertation, University of Northern Colorado, Greeley.
- Hasnain, R., Sotnik, P., & Ghiloni, C. (2003). Person-centered planning: A gateway to improving vocational rehabilitation services for culturally diverse individuals with disabilities. *Journal of Rehabilitation*, 69(3) 10-17.
- Hershenson, D.B. (1996a). Work adjustment: A neglected area in career counseling. *Journal of Counseling and Development*, 74, 442-226.
- Hershenson, D.B. (1996b). A systems reformulation of a developmental model of work adjustment. *Rehabilitation Counseling Bulletin*, 40(1), 9-10.
- Hester, E. J., Baltrukenas, V. (1995). Increasing client motivation through empowerment in the vocational evaluation process: a holistic approach. In R.R. Fry (ed.) *The Issues Papers, Seventh*

- National Forum on Issues in Vocational Evaluation, Assessment, and Work Adjustment* (Pg 69-78). Menomonie, WI: University of Wisconsin-Stout, Materials Development Center.
- Hertz, E., (Ed.) (1941). *Lincoln talks: A biography in anecdote*. New York: Halcyon House.
- Hilyer, K. (1997). Redesigning Vocational Evaluation for Career Development. In R.R. Fry (Ed.), *The Issues Papers. Eighth National Forum on Issues in Vocational Assessment* (pp.111-116). Menomonie, WI: University of Wisconsin-Stout, The Rehabilitation Resource.
- Hoffman, P. (1970). An overview of work evaluation. *Journal of Rehabilitation*, Jan/Feb, 16-18.
- Holland, J.L. (1987). *1987 Manual Supplement for the Self-Directed-Search*. Odessa, FL: Psychological Assessment Resources, Inc.
- Hughes, C., Eisenman, L.T., Hwang, B., Kim, J.H., Killian, D. & Scott, S.V. (1997). Transition from secondary special education to adult life: A review and analysis of empirical measures. *Education & Training in Mental Retardation and Developmental Disabilities*, 32(2), 85-105.
- Hunt, P.C. (2002). *An introduction to Vietnamese culture for rehabilitation services providers in the U.S.* Center for International Rehabilitation Research Information and Exchange. Buffalo, NY: University of Buffalo, State University of New York.
- Hutzler Y., & Sherrill, C. (1999). Disability, physical activity, psychological well-being and empowerment. In: Lidor R, Bar-Eli M (Eds.). *Sport psychology: Linking Theory and practice* (p.281-300). Morgantown: Fitness Information Technology.
- Individuals with Disabilities Education Act Amendments of 1997. (P. L. 105-17). 1997. 20 U.S.C. Chapter 33.
- Individuals with Disabilities Education Improvement Act of 2004, P. L. No. 108-446, 20 U.S.C. Sec. 1400, et seq
- Jezewski, M.A., & Sotnik, P. (2001). *Culture brokering: Providing culturally competent rehabilitation services to foreign-born persons*. Center for International Rehabilitation Research Information and Exchange. Buffalo, NY: University of Buffalo, State University of New York.
- Johnson, C. (2002, February). Career assessment services update. Maryland State Department of Education, Division of Rehabilitation Services.
- Johnson, R.C. (2003, Fall). High stakes testing conference held at

- Gallaudet. *Research at Gallaudet*, 1-3. Washington, DC: Gallaudet Research Institute, Gallaudet University.
- Kaiser, J. & Noll, A. (1997). Intensive vocational/technology assessment. In R. Fry (Ed.) *The Issues Papers: Eighth National Forum on Issues in Vocational Evaluation, Assessment, and Work Adjustment*. Menomonie, WI: University of Wisconsin-Stout, The Rehabilitation Resource.
- Kansas Rehabilitation Services. (2003). Rehabilitation Services Career Development Centers Standards for Achieving Quality Outcomes. Vocational Evaluation and Supported Education Program Manual.
- Kilbane, C. R., Milman, N. B. (2003). The digital teaching portfolio handbook: A how-to guide for educators. Boston, Massachusetts: Allyn and Bacon.
- Kim-Rapnow, W.S. (2001). *An introduction to Korean culture for rehabilitation service providers*. Center for International Rehabilitation Research Information and Exchange. Buffalo, NY: University of Buffalo, State University of New York.
- Klukas, G.M., & Annis, J.A. (2003). Intensive vocational and technology assessment: Integrating assistive technology into the vocational evaluation process. *Vocational Evaluation and Work Adjustment Journal*, 35(1), 33-42.
- Koegel, R., & Koegel, L. (1995). *Teaching children with autism: Strategies for initiating positive interactions and improving learning opportunities*. Baltimore: Paul H. Brookes.
- Koenig, A. J. (1992). A framework for understanding the literacy of individuals with visual impairments. *Journal of Visual Impairments and Blindness*, 86, 277-284.
- Koenig, A.J., & Rex, E.J. (1996). Instruction of literacy skills to children and youths with low vision. In A. Corn & A.J. Koenig (Eds.) *Foundations of low vision: Clinical and functional perspectives*. New York: AFB Press.
- Kosciulek, J. (1991). The relationship between vocational evaluation recommendations and rehabilitation outcomes for persons with head injuries: an empirical analysis. In R. Fry (Ed.), *The Issues Papers: Fifth National Forum on Issues in Vocational Assessment* (pp. 277-283). Menomonie, WI: University of Wisconsin-Stout, Materials Development Center.
- Kosciulek, J., Prozonic, L., & Bell, D. (1995). On congruence of evaluation, training, and placement. *Journal of Rehabilitation*, 61,

20-23.

- Koufman-Frederick, A., Lillie, M., Pattison, L., Watt, D. L. & Carter, R. (1999). *Electronic collaboration: A practical guide for educators*. A joint production of the Northeast Islands Regional education Lab at Brown University, National School Network & Teacher Enhancement Electronic Community Hall. Providence, Rhode Island. Sponsored by the Office of Educational Research and Improvement, Washington, D.C. and the National Science Foundation, Alexandria, Virginia.
- Langton, A.J. (1993). Making more effective use of assistive technology in the vocational evaluation process. *Vocational Evaluation & Work Adjustment Bulletin*, 26(1), 13-19.
- Langton, A.J., Hughes, J. Flynn, C. & et al. (1994) *Tech Points: Integrating Rehabilitation Technology into Vocational Rehabilitation Services Training Manual*. West Columbia, SC: South Carolina Vocational Rehabilitation Department.
- Langton, A.J., & Lown, N. (1995). Rehabilitation technology resources and services: How well are we using them in vocational evaluation? In R.R. Fry (Ed.), *The Issues Papers: Seventh National Forum on Issues in Vocational Assessment* (pp. 19-26). Menomonie, WI: The Rehabilitation Resource, University of Wisconsin-Stout.
- Langton, A.J., Smith, F., Lown, N.F., & Chatham, L.J. (1998). *Guide to using assistive technology in assessment and vocational evaluation*. West Columbia, SC: South Carolina Vocational Rehabilitation Department, Center for Rehabilitation Technology Services.
- Lapan, R.T. & Kosciulek, J.F. (2003). Toward a community career system program evaluation framework. *Professional School Counseling*, 6(5), 316-331.
- Leahy, M., & Wright, G. (1988). Professional competencies of the vocational evaluator. *Vocational Evaluation and Work Adjustment Bulletin*, 21, 127-132.
- Leconte, P.J. (1994). Vocational appraisal: Evolution from multidisciplinary origins and applications to interdisciplinary practices. *Vocational Evaluation and Work Adjustment Bulletin*, 27(4), 119-127.
- Leconte, P.J. (1999). Vocational evaluation. In S.H. deFur and J.R. Patton (Eds.), *Transition and School-based Services* (pp. 387-417). Austin, TX: PRO-ED.
- Leconte, P.J. (2002). Assessment strategies for transition planning: A

- collaborative approach that includes all stakeholders. Presented at the 2002 National Disability and Employment Conference, Washington, D.C.
- Leconte, P.J. (2003). Cross systems assessment strategies for transition planning. Powerpoint: Pennsylvania Training and Technical Assistance Network. Harrisburg, Pittsburgh, & King of Prussia. May 5, 6, and 7.
- Leconte, P.J., & Neubert, D.A. (1987). Vocational education for special needs students: Linking assessment and support. *Diagnostic*, 12, 156-167.
- Leconte, P. (1985). The uses of vocational evaluation. *VocEd*, 41-43.
- Lee, C.L. (1991). Multicultural counseling: New perspectives for the 1990s and beyond. *Counseling and Human Development*, 23, 1-8.
- Levinson, E.M., (1994, October.) Current vocational assessment models for students with disabilities. *Journal of Counseling & Development*, 73, 94-101.
- Lombard, R.C., Larson, K.A., & Westphal, S.E. (1993). Validation of vocational assessment services for special populations in tech-prep. A model for translating the Perkins assurances into practice. *The Journal for Vocational and Special Needs Education*, 16(1), 14-22.
- Long, E.L. (1999, December). Communication differences among American Indian youth. DiversityInc.com. Retrieved May 18, 2001, from <http://www.diversityinc.com/News/aistudents.html>
- Lussier, R. (2002). *Human relations in organizations: Applications and skill building* (5th ed.). New York: McGraw-Hill.
- MacIsaac, K. (2003). Keeping current in the age of information: A challenge to vocational evaluation. Retrieved February 1, 2004 from [www.vecap.org](http://www.vecap.org).
- Maki, D.R., McCracken, N., Pape, D.A. & Scofield, M.E. (1979). A systems approach to vocational assessment. *Journal of Rehabilitation*, 45, pp.48-51.
- Marut, P., & Bullis, M. (1985). An analysis of the relationship of vocational evaluation recommendations to rehabilitation outcomes for deaf people. *Vocational Evaluation and Work Adjustment Bulletin*. 18, 66-70.
- Maryland State Department of Education. (2000). Handout: Career Pathways. Baltimore, MD: Division of Career and Technical Education, Author.
- Maryland State Department of Education Division of Rehabilitation-

- tion Services. (2002, February). *Career assessment services update*. Annapolis, MD: Author.
- McCray, P. (1982). *Vocational evaluation and assessment in school settings*. Menomonie, WI: University of Wisconsin-Stout, Research & Training Center.
- McCortney, A.L. & Engels, D.W. (2003). Revisiting the work ethic in America. *The Career Development Quarterly*, 52, 132-141.
- McDaniel, R.S. (1986). Vocational evaluation: What direction. Second National Forum on Issues in Vocational Assessment, March 13-15, Dallas, TX.
- McDaniel, R.S. (1987). Deprofessionalizing vocational evaluation. In R.R. Fry (Ed.), *The Issues Papers: Third National Forum on Issues in Vocational Assessment* (pp. 1-4). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- McDaniel, R. S. & Couch, R.H. (1980). Job analysis in vocational evaluation and adjustment. *Vocational Evaluation and Work Adjustment Bulletin*, 13(1) 17-22.
- McGuire-Kuletz, M. & Ashley, J. (2001, Summer). A process for determining vocational evaluation needs in a state VR agency. *VEWAA Bulletin*, 33(1). 39-45.
- Melaville, A.I., & Blank, M.J. (1991). *What it takes: Structuring inter-agency partnerships to connect children and families with comprehensive services*. Washington, DC: Education and Human Services Consortium.
- Middleton, R.A., Flowers, C., & Sawaiz, J. (1996). Multiculturalism, affirmative actions and Section 21 of the 1992 Rehabilitation Act Amendments. *Rehabilitation Counseling Bulletin*, 40, (1) 11-29.
- Middleton, R.A., Rollins, C.W., Sanderson, P.L., Leung, P., Harley, D.A., Ebner, D., et al. (2000). Endorsement of professional multicultural rehabilitation competencies and standards: A call to action. *Rehabilitation Counseling Bulletin*, 43:4, 219-240.
- Miller, M. (1958). Does a work evaluation program work? *Journal of Rehabilitation*, 24, 8-17.
- Mitchell, P.J. (2001). Beyond the classroom: A summer transition program for blind and visually impaired adolescents. *Re: View*, 32(4), 151-155.
- Montgomery, K. (1996). *Comprehensive vocational evaluation and the successful rehabilitation of individuals with chronic mental illness*. Unpublished master's project, East Carolina University, Greenville,

NC.

- Mull, C.A., & Sitlington, P.L. (2003). The role of technology in the transition to postsecondary education of students with learning disabilities: A review of the literature. *Journal of Special Education*, 37(1), 26-32.
- Murphy, S.T., & Hagner, D.C. (1986). Down to reality: Ecological determinants of vocational evaluation. In R.R. Fry (Ed.), *The Issues Papers: Second National Forum on Issues in Vocational Assessment* (pp. 157-162). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- Nadolsky, J.M. (1966). *Vocational evaluation: An experimental trend in vocational assessment*.
- Nadolsky, J.M. (1971). *Development of a model for vocational evaluation of the disadvantaged. Interim Report*. Auburn, AL: Department of Vocational and Adult Education, Auburn University.
- Nadolsky, J. M. (1977). The educated counselor: Responsibilities in a service society. *The Journal of Rehabilitation*, 43 (4), 30-32.
- Nadolsky, J.M. (1983). The development of vocational evaluation services. In R. Lassiter, M. Lassiter, R. Hardy, J. Underwood, & J. Cull (Eds.), *Vocational evaluation, work adjustment, and independent living for severely disabled people* (5-17.) Springfield, IL: Charles C. Thomas.
- Nadolsky, J.M. (1984). Vocational evaluation: An experimental trend in vocational assessment. In C. Smith & R.Fry (Eds.), *The Issues Papers: National Forum on Issues in Vocational Assessment* (1-9). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- National Association of Judiciary Interpreters and Translators (NA-JIT). Retrieved 03/31/2004 from the world wide web <http://www.najit.org/examfaqs.html>
- National Center for Adult Education Statistics (1993). Adult Literacy in America. U.S. Department of Education, Office of Educational Research and Improvement NCES 1993-275.
- National Center for Cultural Competence. (1999-2002). Conceptual framework/models, guiding values and principles. Retrieved January 9, 2004, from Georgetown University, National Center for Cultural Competence Web site: <http://www.georgetown.edu/research/gucdc/ncc/framework.html>
- National Council on Disability. (2003a). *Outreach for All Forum Summary Paper: Paths to support individual empowerment of people with*

- disabilities from diverse cultures*. Washington, D.C.
- National Council on Disability. (2003b). *Outreach and People with Disabilities from Diverse Cultures: A Review of the Literature*. Washington, D.C.
- National Institute on Disability and Rehabilitation Research. (2001) Section 2: NIDRR Research Agenda. Chapter 5: Technology for Access and Function. *NIDRR's Long Range Plan*. Retrieved October 2, 2005, at <http://www.ncddr.org/rpp/techaf/lrpov.html>.
- National Life Work Center (2002). *Blueprint for Life/Work Designs: Career Portfolios Telling your Life/Work Story*. Memramcook, NB E4K 3S6 Canada.
- National Occupational Information Coordinating Committee. (1989). National career development guidelines: Trainer's guide. Washington, DC: Author. (ERIC Document Reproduction Service Number ED 317 874)
- National Organization on Disability (2000). *2000 N.O.D./Harris survey of Americans with disabilities*. Washington, D.C.: Author.
- Neff, W.S. (1966). Problems of work evaluation. *Personnel and Guidance Journal*, 24, 682-688.
- Neff, W.S. (1970). Vocational assessment-theory and model. *Journal of Rehabilitation*, (36) 27-29.
- Neubert, D.A. (1994). Vocational evaluation and assessment in vocational-technical education: Barriers and facilitators to interdisciplinary services. *Vocational evaluation and work adjustment bulletin*, 27(4), 149-153.
- Neubert, D.A., & Moon, M.S. (2000). How a transition profile helps students prepare for life in the community. *Teaching Exceptional Children*, 32(2), 20-25.
- Newman, I., Nolte, D., & Boyer-Stephens, A. (1998). An assessment of knowledge domains for vocational evaluators: A precursor to a national licensure examination. *Vocational Evaluation and Work Adjustment Bulletin*, 64, 72-79.
- O'Brien, M., Ashley, J., & McGuire-Kuletz, M. (in press). Vocational evaluation and assessment: A state vocational rehabilitation administrator's perspective. *Vocational Evaluation and Career Assessment Professionals Journal*.
- Osborn, D.S., Peterson, G.W., Sampson, Jr., J.P., and Reardon, R.C. (2003). Client anticipations about computer-assisted career guidance system outcomes. *Career Development Quarterly*, 51(4),

- Parker, R. M. (2001). Aptitude testing. In B.F. Bolton (Ed.), *Handbook of measurement and evaluation in rehabilitation*. (3<sup>rd</sup> ed.)103-124. Gaithersburg, MD: Aspen Publications.
- Parker, R. & Schaller, J. (1996). Issues in vocational assessment and disability. In E. Szymanski & R. Parker (Eds.), *Issues and strategies in career development and job placement*. 127-164. Austin, TX: Pro-Ed Publisher.
- Parker, R.M., Szymanski, E.M., & Hanley-Maxwell, C. (1989). Ecological assessment in supported employment. *Journal of Applied Rehabilitation Counseling*, 20(3), 26-33.
- Partnership for 21<sup>st</sup> Century Skills (2003). *Learning for the 21<sup>st</sup> century*. Washington, D.C.: Author. Retrieved from <http://www.21stcenturyskills.org>.
- Peters, R., Scalia, V., & Fried, J. (1993). The effectiveness of vocational evaluation program recommendations and successful outcome by disability type. *Vocational Evaluation and Work Adjustment Bulletin*, 26, 47-52.
- Peterson, J.J. (1991). The impact of the ADA on the field of vocational evaluation. In R.R. Fry (Ed.), *The Issues Papers: Fifth National Forum on Issues in Vocational Assessment* (pp. 53-56). Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- Phillips, S.D., Blustein, D.L., Jobin-Davis, K., & White, S.F. (2002). Preparation for the school-to-work transition: The views of high school students. *Journal of Vocational Behavior*, 61(2), 202-216.
- Pichette, E.F., Garret, M.T., Kosciulek, J.F., & Rosenthal, D.A. (1999). Cultural identification of American Indians and its impact on rehabilitation services. *Journal of Rehabilitation*, 65:2, 3-10.
- Power, P.W. (2000). *A guide to vocational assessment* (3rd ed.). Austin, Texas: Pro-Ed.
- Power, P., & McKenna, M. (1994). Rehabilitation counseling: A perspective on an interdisciplinary approach to vocational evaluation and assessment. *Vocational evaluation and work adjustment bulletin*, 27(4), 128-132.
- Professional Standards Committee (2002). Standard Practice Paper: Interpreting for Individuals Who Are Deafblind. Retrieved March 31, 2004 from the <http://www.rid.org/129.pdf>

- Pruitt, W. A. (1986). *Vocational evaluation* (2nd Ed.), Menomonie, WI: Walt Pruitt Associates.
- Radtke, J (Ed). (1998). *Achieving successful employment outcomes with the use of assistive technology*. 24<sup>th</sup> Institute on Rehabilitation Issues. Menomonie: University of Wisconsin-Stout, Research and Training Center.
- Rasmussen, T. (1996). *The ATD Trainer's Sourcebook: Diversity*. New York, NY: McGraw-Hill, Inc. Rehabilitation Act Amendments of 1992, Public Law 102-569, 106 Stat. 4344.
- Rehabilitation Act of 1973, Pub. L. No. 93-112, 29 U.S.C. Sec. 700 et seq.
- Reid, C., Scott, N., Stokes, M.E., & Margeson, K. (in press). Vocational evaluation outcomes in Virginia: Does it matter what program is recommended? *Journal for Vocational Special Needs Education*.
- Rogan, P., Grossi, T., & Gajewski, R. (2001). Vocational and career assessment. In C. L. Sax C.A. Thoma (Eds.), *Transition assessment: Wise practices for quality lives*. Baltimore: Paul Brookes.
- Rogan, P., & Hagner, D. (1990). Vocational evaluation in supported employment. *Journal of Rehabilitation*, 56(1), 45-51.
- Rosenberg, B., & Usdane, W. (1963). The TOWER system: Vocational evaluation of the severely handicapped for training and placement. *Personnel and Guidance Journal*, 42, 149-152.
- Rumrill, P.D., Jr., Roessler, R.T. (1999). New directions in vocational rehabilitation: A "career development" perspective on "closure." *The Journal of Rehabilitation*, 65 (1), 26-30.
- Ryan, R. (Dec, 2001). Recognizing psychosis in nonverbal patients with developmental disabilities. *Psychiatric Times*, XVII, (12) Retrieved April 4, 2004 from <http://www.psychiatrictimes.com/p011251.html>
- Santos, M. (1997 April-June). Portfolio assessment and the role of learner reflection. *Forum*, 35(2), 10-19.
- Sawyer, J.W. (1987). Professionalization of vocational evaluation. In R.R. Fry (Ed.), *The Issues Papers: Third National Forum on Issues in Vocational Assessment*. 5-10. Menomonie, WI: Materials Development Center, University of Wisconsin-Stout.
- Scott, N., & Prezioso, C. (1986). Vocational evaluation in the public schools - the Virginia model. In R. Fry (Ed.), *The Issues Papers: Second National Forum on Issues in Vocational Assessment*. 113-116. Menomonie, WI: University of Wisconsin-Stout, Materials

Development Center.

- Shahnasarian, M. (2001). Career rehabilitation: Integration of vocational rehabilitation and career development in the twenty-first century. *The Career Development Quarterly*, vol 49 (3), pp 275-283.
- Sink, J. M., & Porter, T.L. (1978). Convergence and divergence in rehabilitation counseling and vocational evaluation. *Journal of Applied Rehabilitation Counseling*, 9(1), 5-20
- Sitlington, P.L. (2000). *Transition education and services for adolescents with disabilities*. Needham Heights, MA: Allyn & Bacon.
- Sitlington, P.L., Neubert, D.A., Begun, W., Lombard, R.C., & Leconte, P.J. (1996). *Assess for success: Handbook on transition assessment*. Reston, VA: The Council for Exceptional Children.
- Sitlington, P., Neubert, D. & Leconte, P. (1997). Transition assessment: The position paper of the Division on Career Development and Transition. *Career Development of Exceptional Individuals*, (2), 69-79.
- Sligar, S. (2003). Matching needs & services: Suggestions for inclusion of persons who are deaf or hard of hearing. *RSA Region V CRP-RCEP July 15, 2003 teleconference* [transcript]. [on-line] available: <http://www.ed.uiuc.edu/illinoisrcep/activities/teleconf.htm>
- Sligar, S. & Northup, M. (1999, March). *Beyond silence: Providing quality services to persons who are deaf or hard of hearing*. Manual for statewide satellite training for the Illinois Department of Children and Family Services, Northern Illinois University NIU/DCFS Training Office and Governors State University, Matteson, IL.
- Smith, F.G. (2003). Universal design for learning and vocational evaluation: Recognizing the parallels. Presentation at the Eleventh National Forum on Assessment Issues in Vocational Assessment, Evaluation and Work Adjustment. Charleston, SC.
- Smith, F.G., Lombard, R., Neubert, D., Leconte, P., Rothenbacher, C., & Sitlington, P. (1995). Position statement of the Interdisciplinary council on vocational evaluation and assessment. *Journal for Vocational Special Needs Education*, 17, 41-42.
- Smith, F.G., & Schuster, D.L. (1993). Building consensus: The interdisciplinary council on vocational evaluation and assessment. In R.R. Fry & W.E. Garner (Eds.), *The Issues Papers: Sixth National Forum on Issues in Vocational Assessment*. 51-56. Menomonie, WI:

- Materials Development Center, University of Wisconsin-Stout.
- Spiers, E., & Ehrlich, S. (2002). Tips on how to communicate and comply effectively with a deaf-blind person. Retrieved April 1, 2004 from <http://www.deafblind.com/tipsdbp.html>
- Staub, D., Peck, C.A., Galluci, C., & Schwartz, I. (2000). Peer relationships. In M.E. Snell & F. Brown (Eds), *Instruction of students with severe disabilities* (5th Ed.), 381-409.
- Swicegood, P. (1994). Portfolio-based assessments practices. *Intervention in School and Clinic*, 30, 6-15.
- Szymanski, E. M. (1999, June). Disability, job stress, the changing nature of careers and the career resilience portfolio. *Rehabilitation Counseling Bulletin*, 42(4), 279.
- Targett, P.S., Ferguson, S.S., & McLaughlin, J. (1998). Consumer involvement in vocational evaluation. In P. Wehman and J. Kregel (Eds.) *More than a job: Securing satisfying careers for people with disabilities*. Baltimore, MD: Paul H. Brookes.
- Task Force #1, Vocational Evaluation Project. (1975). Vocational evaluation services in the human services delivery system. *Vocational Evaluation and Work Adjustment Bulletin*, 8 (special edition), 7-48.
- Taylor, D., Bordieri, J., & Lee, D. (1993). Job tasks and functions of vocational evaluators: A national study. *Vocational Evaluation and Work Adjustment Bulletin*, 26, 146-154.
- Taylor, O.L. (1987). Cross-cultural communication: An essential dimension of effective education. NW Regional Educational Laboratory. Retrieved January 11, 2004, from <http://www.nwrel.org/cnorse/booklets/ccindex.html>
- Tech Connections (2002, December). Communication devices from the Tech Connections assistive technology quick reference series. Retrieved April 4, 2004 from <http://www.techconnections.org/training/dec2002/CommDevices.doc>
- The Center for Universal Design. (1997a). The principles of universal design, version 2.0. Raleigh, NC: North Carolina State University.
- The Center for Universal Design. (1997b). What is universal design? Retrieved September 29, 2005, from <http://www.design.ncsu.edu/cud/univdesign/ud.htm>.
- The Translators and Interpreters Guild (2000). Retrieved March 31, 2004 from <http://www.ttig.org/>
- Thoma, C.A., & Held, M. (2002). Measuring what's important us-

- ing alternative assessments. In C. L. Sax & C. A. Thoma (Eds.), *Transition assessment: Wise practices for quality lives*. 71–86. Baltimore, MD: Paul H. Brookes.
- Thomas, S. (1986). *Report writing in assessment and evaluation*. Menomonie, WI: University of Wisconsin–Stout, Stout Vocational Rehabilitation Institute, Materials Development Center.
- Thomas, S. (1994). Vocational evaluation: Dynamics, politics, and creative application. *Vocational Evaluation and Work Adjustment Bulletin*, 27, 115–118.
- Thomas, S. (1996). A position paper supporting the continued funding of vocational evaluation training by the Rehabilitation Services Administration. *Vocational Evaluation and Work Adjustment Bulletin*, 29 (1), 4–8.
- Thomas, S. (1997). Three roles of the vocational evaluator. *Vocational Evaluation and Work Adjustment Bulletin*, 30, 9–12.
- Thomas, S. (1999). *Vocational Evaluation and Assessment: Philosophy and Practice*. Greenville, NC: Unpublished manuscript.
- Thomas, S. (1999). Vocational evaluation in the 21<sup>st</sup> Century: Diversification and independence. *Journal of Rehabilitation*, 65 (1), 10–15.
- Thomas, S. (2000). Emerging roles of the vocational evaluator. *VE-WAA Newsletter* (27) 3. pp.2–5.
- Thomas, S., Bowers, C., Batten, D., & Reed, B. (1993). The Americans with Disabilities Act: Resources for implementation through vocational evaluation. In R.R. Fry (Ed.), *The Issues Papers: Sixth National Forum on Issues in Vocational Assessment*, 29–38. Menomonie, WI: Materials Development Center, University of Wisconsin–Stout.
- Thornburg, David. (2002). The new basics: Education and the future of work in the telematic age. The Association for Supervision and Curriculum Development. Alexandria, VA.
- Twenty-First Century Workforce Commission. (2000). *A nation of opportunity: Building America's 21<sup>st</sup> century workforce*. The U.S. Department of Labor. Washington, DC.
- University of Arizona's National Center for Interpretation (NCI). Retrieved March 31, 2004 from <http://nci.arizona.edu/>
- U.S. Bureau of the Census (2001, March). *2001 Current populations study*. Bureau of the Census for the U.S. Bureau of Labor Statistics, Washington, D.C. Retrieved from <http://www.census.gov/apspd/techdoc/cps/cpsmar01.pdf>.

- U.S. Department of Commerce. (1999). *Twenty-first century skills for 21<sup>st</sup> century jobs*. Washington, DC.
- U.S. Department of Labor. (1991). *What work requires of schools: A SCANS report for American 2000*. Washington, D.C.
- U.S. Department of Labor (1992). *Learning a living: A blueprint for high performance*. A SCANS Report for America 2000, The Secretary's Commission on Achieving Necessary Skills, Washington, D.C.. Retrieved from <http://www.ttre.doleta.gov/SCANS/lal/LAL.HTM>
- U.S. Department of Labor. (1999). *Futurework: Trends and challenges for work in the 21<sup>st</sup> century*. Washington, D.C.
- U.S. Department of Labor (2000). *Employee Retirement Income Security Act 2000 Report to Congress*. Washington, D.C.: U. S. Department of Labor, Pension and Welfare Benefits Administration.
- U.S. Department of Labor. (2001). *Working in the 21<sup>st</sup> Century*. Washington, D.C.: Bureau of Labor Statistics. Washington, D.C.
- Vocational Evaluation and Career Assessment Professionals. (1997). *VECAP position paper on the role of assistive technology in assessment & vocational evaluation*. Retrieved September 29, 2005, from <http://www.vecap.org/atrole.html>.
- Vocational Evaluation and Work Adjustment Association. (1975). Vocational evaluation project final report, Reprint No. 12. *Vocational Evaluation and Work Adjustment Bulletin*, 8 (Special Edition).
- Ward-Ross, L.E. (1985). *Contribution of vocational evaluators' recommendations to client rehabilitation success*. Unpublished master's thesis, East Carolina University, Greenville, NC.
- Wardin, K. (1996). A comparison of verbal evaluation of clients with limited English proficiency and English-speaking clients in physical rehabilitation settings. *The American Journal of Occupational Therapy*, 50, 816-825.
- Wehman, P., & Revell, W.G. (1997). Transition into support employment for young adults with severe disabilities: Current practices and future directions. *Journal of Vocational Rehabilitation*, 8, 65-74.
- Wesolek, J., & McFarlene, F. (1992). Vocational assessment and evaluation: Some observations from the past and anticipation for the future. *Vocational Evaluation and Work Adjustment Bulletin*, Summer, 25, (2), 51-54.
- Whitmore, E., & Kerans, P. (1988). Participation empowerment and

- welfare. *Canadian Review of Social Policy*(22), 51-60.
- Williams, D.M. (1975). *A follow-up study on the relationship between work evaluators' recommendations and client placement*. Menomonee, Wisconsin: University of Wisconsin-Stout, Stout Vocational Rehabilitation Institute.
- Wimpigler, P.J. (2001). Computer and assistive technology based vocational assessment. Washington, DC: The George Washington University. Unpublished manuscript.
- Wonacott, M.E. (2001). Career portfolios. ERIC Practice Application Brief No. 13. Clearinghouse on Adult, Careers, and Vocational Education.
- Wonacott, M.E. (2002). Career passports, portfolios, and certificates. ERIC Digest No 238. Clearinghouse on Adult, Careers; and Vocational Education.
- Workforce Investment Act of 1998, Pub. L. No. 105-220, 20 U.S.C. Sec. 9201 et seq.

# Glossary

**Culture:** The integrated pattern of human behavior that includes thoughts, communications, actions, customs, beliefs, values and institutions of a racial, ethnic, religious, or social group.

**Cultural Competency:** Cultural competence requires that organizations:

- have a defined set of values and principles, and demonstrate behaviors, attitudes, policies, and structures that enable them to work effectively cross-culturally;
- have the capacity to (1) value diversity, (2) conduct self-assessment, (3) manage the dynamics of difference, (4) acquire and institutionalize cultural knowledge and, (5) adapt to diversity and the cultural contexts of the communities they serve; and
- incorporate the above in all aspects of policy making, administration, practice, service delivery, and involve systematically consumers, key stakeholders and communities.

**Diversity:** The mosaic of people who bring a variety of backgrounds, styles, perspectives, values, and beliefs as assets to the groups and organizations with which they interact.

**Minority:** An individual or cultural group/subgroup that is not the majority culture due to some characteristic that may or may not be racial.

**Spoken/Oral language:** A systematic way of conveying or communicating ideas; specifically, human speech; the expression of ideas by the voice; sounds, expressive of thought, articulated by the organs of the throat and mouth.

## **Acronym    Definition**

ADA	Americans With Disabilities Act
ADARA	American Deafness and Rehabilitation Association
AER	Association for the Education and Rehabilitation of the Blind
ASL	American Sign Language
AT	Assistive Technology
B.S.	Bachelor of Science Degree
BLS	Bureau of Labor Statistics
CARF	Commission on Accreditation of Rehabilitation Facilities
CCWAVES	Commission on Certification of Work Adjustment and Vocational Evaluation Specialists
CPS	Current Population Survey
CRC	Certified Rehabilitation Counselor
CSAVR	Council of State Administrators of Vocational Rehabilitation
CVE	Certified Vocational Evaluator
DCDT	Division of Career Development and Transition
DD	Developmental Disability
DDA	Disability Discrimination Act
DNP	Disability Navigator Position
DOL	Department of Labor
DOT	Dictionary of Occupational Titles
DPT	Date, Persons, Things
ERIC	Educational Resources Information Center
ESL	English as Second Language
FLSA	Fair Labor Standards Act
GAO	Government Accounting Office
ICD	International Center for the Disabled

IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
IPE	Individualized Plan for Employment
IRI	Institute on Rehabilitation Issues
KSA	Knowledges, Skills, and Abilities
LFD	Low-functioning and deaf
M.S.	Masters of Science Degree
MOU	Memoranda of Understanding
NCDG	National Career Development Guidelines
NCD	National Council on Disability
NCRE	National Council on Rehabilitation Education
NIDRR	National Institute for Disability and Rehabilitation Research
NOICC	National Occupational Information Coordinating Committee
O*NET	Occupational Information Network
OSERS	Office of Special Education and Rehabilitative Services
P.L.	Public Law
PDA	Personal Digital Assistant (Palm Pilot)
RC	Rehabilitation Center
RESNA	Rehabilitation Engineering & Assistive Technology Society of North America
RFP	Request for Proposals
RSA	Rehabilitation Services Act
RSA	Rehabilitation Services Administration
SCANS	Secretary's Commission on Achieving Necessary Skills
SSA	Social Security Administration
SSDI	Social Security Disability Insurance
SSI	Supplemental Security Income

STWOA	School-to-Work Opportunities Act
TTY	Text Telephone
U.S.	United States
VE	Vocational Evaluation
VECAP	Vocational Evaluation and Career Assessment Professionals
VEIQ	Vocational Evaluation Information Questionnaire
VEWAA	Vocational Evaluation and Work Adjustment Association
VR	Vocational Rehabilitation
WIA	Workforce Investment Act
WIAA	Work Incentives Improvement Act
WIB	Workforce Investment Board

## **Appendix A**

# **Appendix to Chapter Three**

Vocational evaluators have an array of resources available to them. With practice in the field, they learn which resources are useful in various situations. The Dictionary of Occupational Titles was last published by the federal government in 1991. Though it contains detailed information that is useful for evaluators and consumers, the more recent O\*NET has more current information, if not to the same level of specificity as the DOT. It is helpful if evaluators have expertise using both resources as well as others (e.g., Guide of Occupational Exploration, Classification of Jobs, Occupational Outlook Handbook).

### **Federal Web-based Resources**

The U.S. Department of Labor now provides numerous self-assessment options and resources for evaluators and consumers to use in the evaluation process. These are couched in the philosophy promoted by the Workforce Investment Act (WIA), ‘the power of E3’ – a workforce system where Economic Development, Education, and Employment agencies work in concert to create a demand-driven system. To be demand-driven we must consider the emerging changes in the economy – how and where work is performed as well as the skills and abilities needed to perform work. In a demand-driven workforce system, all job seekers should be informed about the needs of prospective employers so that they can equip themselves with the knowledge and skills that will ensure an opportunity for sustained

employment and future growth.

There are several resources available to all participants of the vocational evaluation process. Many of the resources are available as self-service tools that can empower the customer to be actively involved in career exploration activities. The Department of Labor, Employment and Training Administration has funded the development of a suite of electronic tools known as the CareerOneStop. These tools, which are 508 compliant, referring to requirements of the Rehabilitation Act of 1973 as amended in 1998 (meaning accessible in digital format for people with disabilities), are accessible from any computer that has Internet access. These tools have been developed for all customers of the Workforce System: employers, job seekers, as well as workforce development professionals.

The CareerOneStopPortal <http://www.CareerOneStop.org> organizes the information contained in the tools for easy access to information. Users can find information by user need or by topic.

America's Career InfoNet (ACINet) <http://www.acinet.org> is organized around O\*NET-SOC occupations. In the section called 'What It Takes,' one can select the occupation of choice and view the tasks, knowledge, skills, and abilities most frequently required for that occupation. With a few clicks to select the State of choice, you can view a complete Occupation Report that includes information on the projected outlook for that occupation, the customary wages, and determine if a license is required to work in that occupation. The Employer Locator provides easy access to a yellow page listing of over 12 million employers.

America's Job Bank (AJB) <http://www.ajb.org> provides a listing of over a million job orders across the country organized by the SOC O\*NET occupations. After exploring the requirements and outlook for an occupation, use AJB to determine the potential for employment in a local area. One way to get a quick snapshot of job availability is to search the job orders in AJB.

The CareerOneStop Web tools provide up-to-date information on occupations and worker requirements, the occupational outlook and wages, licensing and certification requirements, and the availability of jobs in the geographic area and much more. Most States and a few local workforce agencies have also developed Web-based electronic tools to provide access to this type of information. Check with the local One-Stop Career Center to find out about sources of local information. Locate the nearest One-Stop Career Center by searching

on America's Service Locator (ASL) by using [www.servicelocator.org](http://www.servicelocator.org) the last of the CareerOneStop suite of tools.

## **O\*NET – the Occupational Information Network**

The Occupational Information Network (O\*NET) is the tool that the Department of Labor (DOL) is supporting to supersede the Dictionary of Occupational titles (DOT) to reflect the work requirements of the 21st century economy. The O\*NET® database of occupational information contains “descriptors,” or key skills, abilities, knowledge, and other characteristics associated with over 950 occupations. Its online application, O\*NET OnLine (<http://online.onetcenter.org>), provides easy public access to the database. Using O\*NET OnLine, students, job seekers, and workforce, business, and human resource professionals can (1) find occupations to explore, (2) search for occupations that use designated skills, (3) look at related occupations, (4) view occupation summaries and details, (5) use crosswalks to find corresponding occupations in other classification systems, (6) create and print customized reports outlining their O\*NET search results, (7) connect to other online career information resources, and (8) access comprehensive and context-sensitive help information.

O\*NET OnLine provides information on occupations through summary, details and custom reports. Reports contain the following descriptors:

- **Tasks** (new and revised for 54 occupations): Work activities that are specific to each occupation, such as “analyzing and testing computer programs or systems to identify errors.”
- **Knowledge**: Organized sets of principles and facts that apply to a wide range of situations, such as knowledge of “mathematics.”
- **Skills**: Developed capacities, which apply to multiple jobs, and which facilitate learning and the performance of activities, such as “reading comprehension.”
- **Abilities**: Enduring attributes of an individual that influence performance, such as “deductive reasoning.”
- **Work Activities**: Tasks that may be performed across multiple occupations, like “thinking creatively.”

- **Work Context:** Physical and social factors that influence the nature of work, such as “the amount of time spent sitting.”
- **Interests:** Preferences for work environments and outcomes. For example, an interest in “investigative occupations” signals an interest in working with ideas and thinking.
- **Work Values:** Global aspects of work that are important to a person’s satisfaction, like “independence.”
- **Work Needs:** More specific aspects of work that are important to a person’s satisfaction, such as “employment security” (steady employment).
- **Related Occupations:** Occupations similar to the selected occupation regarding required knowledge areas, skills, abilities, work environment, and work activities.
- **Wages and Employment Link –** Wage information and employment prospects, by state, for your selected occupation. This information is provided through a link to America’s Career InfoNet.

The O\*NET® system contains career exploration and assessment tools that help individuals identify occupations that match work-related interests and abilities, and what they consider important on the job. The Career Exploration Tools include: O\*NET® Interest Profiler (computerized and hard-copy versions), O\*NET® Work Importance Locator and Work Importance Profiler (computerized and hard-copy versions, respectively), and O\*NET® Ability Profiler (hard-copy only). The link to O\*NET® Career Exploration Tools for free downloading is [www.onetcenter.org](http://www.onetcenter.org)

These and other web-based resources make access easy and underscore the values of empowerment, life-long learning, career development and the new paradigm of vocational evaluation overall. However, precautions must be taken into account so that evaluators do not rely solely on computer-assisted assessment in that many available on the Web are not endorsed by vocational evaluators. They typically lack research, often serve as marketing tools for someone trying to make money, and usually do not provide interpretive feedback.

## **Additional Resources**

- The Materials Development Center (MDC) at the University

of Wisconsin-Stout has served as a national clearinghouse and primary archive for vocational evaluation research, literature, and work samples, and has published VEWAA's and now VECAP's Issues Papers from all the National Forums. The MDC was typically the first resource new evaluators were led to; however, funding limitations have closed the center. For the time being, the University of Wisconsin-Stout is maintaining the MDC materials.

- The National Clearinghouse of Rehabilitation Training Materials housed at Utah State University has collected curricula and syllabi from all rehabilitation education programs including vocational evaluation. [www.ncrtm.ed.usu.edu](http://www.ncrtm.ed.usu.edu)
- The Rehabilitation Services Administration (RSA), which presently is the sole sponsor of funding for vocational evaluation undergraduate and graduate education programs, [www.ed.gov](http://www.ed.gov)
- The national Vocational Evaluation and Career Assessment Professionals (VECAP) association (formerly VEWAA), which is an independent professional association that includes vocational evaluators and assessment specialists from all human services, including those in rehabilitation, [www.vecap.org](http://www.vecap.org)
- The Vocational Evaluation and Work Adjustment Association of the National Rehabilitation Association (NRA), is a professional association for evaluators who work primarily with people with disabilities and affiliate solely with the NRA, [www.nationalrehab.org](http://www.nationalrehab.org)
- Virginia Department of Rehabilitative Services, [www.vadrs.org/](http://www.vadrs.org/), specifically the Vocational Evaluation program at the Woodrow Wilson state rehabilitation center.

The Commission on Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES), [www.ccwaves.org](http://www.ccwaves.org)



## **Appendix B**

# **Transition Profile**

An instrument to collect assessment data and pass on to the student and his/her family, to an adult service provider, or to postsecondary education support personnel.

Neubert, D., Moon, M.S., Leconte, P., & Lowman, M. (1998). Transition profile. College Park, Md: University of Maryland, Department of Special Education.

### **Uses for the Transition Profile**

The Transition Profile was developed as a way for students, families, and teacher to keep track of the vocational experiences students participate in during their secondary years. In addition, the Transition Profile provides a quick reference of students' interests, preferences, and needs that have been discovered during the secondary years. The data compiled on the Transition Profile can be useful in planning future services and activities.

The information on this form can be used for a number of purposes as a student with a disability prepares to exit the school system:

1. The assessment data obtained on the transition profile may be useful to adult service providers who will need to plan and implement services for the student after he or she leaves the school system (e.g. DDA, local non-profit providers of employment, residential, recreation, transportation, or counseling services).

2. The assessment data can be passed to rehabilitation personnel because it should be useful in determining a student's eligibility for rehabilitation services or for planning rehabilitation services.
3. The information on this form can be passed to the student and his or her family as a summary of pertinent vocational experiences, strengths, and needs during the secondary years.
4. The Transition Profile can be passed to support personnel in post-secondary education settings (e.g., community college, university, private vocational program) to assist in determining eligibility for services or to plan accommodations and services the student might need at the postsecondary level).
5. The Transition Profile can be used at a student's IEP meeting in determining transition goals/needs and in determining what additional assessment is needed on the student to determine post-secondary goals and transition needs.
6. The Transition Profile can be used by a student to keep track of his or her own experiences, service needs, or changes in interests and preferences. By keeping up with this data personally, this instrument becomes a tool for enhancing self-advocacy.

Neubert, D., Moon, M.S., Leconte, P., & Lowman, M. (1998). *Transition Profile*. College Park, MD: University of Maryland, Department of Special Education.

**Student Information**

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ SSN: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_

Primary Advocate/Support Person: \_\_\_\_\_

Anticipated Certificate of Completion Date: \_\_\_\_\_

Anticipated Diploma Date: \_\_\_\_\_

Disability Diagnosis: \_\_\_\_\_

Date of Last Psychological Evaluation: \_\_\_\_\_

Critical Medical Information: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Medications: \_\_\_\_\_ None \_\_\_\_\_ Yes -- List... \_\_\_\_\_

\_\_\_\_\_

**IEP Transition Goals**

Employment: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Independent Living: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Post Secondary: \_\_\_\_\_

\_\_\_\_\_

Community Participation: \_\_\_\_\_

\_\_\_\_\_

Vocational Strengths	Needs/Accomodations

Self-Advocacy Skills		Community Access	
___	Requests assistance when needed	___	Drives
___	Expresses needs	___	Uses public transportation
___	Identifies disability in functional terms	___	Uses Community Resources (e.g. banks, grocery stores)
___	Appropriately assertive	___	Uses recreational facilities
___	Accesses resources	___	Other (describe)_____

Reading Level:\_\_\_\_\_ Functional:\_\_\_\_\_

Math Level:\_\_\_\_\_ Self-Management:\_\_\_\_\_

Writing Level:\_\_\_\_\_

### Worker Characteristics

Please mark rating in the space at left. A=Acceptable U=Unacceptable Q=Questionable				
	Dependability		Speed and Accuracy	
	Motivation to Work		Stamina	
	Perseverance		Adaptability to Change	
	Works Independently		Problem-Solving	

Eligibility Established

<input type="checkbox"/>	SSI
<input type="checkbox"/>	SSDI
<input type="checkbox"/>	Medicaid
<input type="checkbox"/>	Other

Needs Referral

<input type="checkbox"/>	SSI
<input type="checkbox"/>	SSDI
<input type="checkbox"/>	Medicaid
<input type="checkbox"/>	Other

### Eligibility Status for Adult Services

	Eligible	Not Eligible	To be Determined	Local Agencies	Accepted	Not Accepted	To be Determined
DORS							
DDA							

## Vocational Training History

Career and Technology Courses	Years Completed	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Competencies Mastered	Skill Certificate	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## Interests and Preferences

Expressed: \_\_\_\_\_

Tested: \_\_\_\_\_

Tested Used & Dates: \_\_\_\_\_

Demonstrated: \_\_\_\_\_

## Profiler Information

Completed by:

Name	Title
E-Mail	Phone
Organization	Fax

## Attachments

The following attachments may assist in developing programs or detecting eligibility for services. Please check if any are attached.

\_\_\_ Adaptive Behavior Scale

\_\_\_Psychological      Evaluation  
    Report  
\_\_\_Vocational-Technical Com-  
    petencies Checklist or Skill  
    Certificate

\_\_\_Interest Inventory  
\_\_\_Other Evaluation Summaries:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Student Approval**

I, \_\_\_\_\_, have reviewed this profile  
on\_\_\_\_\_, and find the information to be up-to-date and  
accurate.

**Appendix C**

**Sample KWL for Vocational Evaluation**

Name\_\_\_\_\_ Age\_\_\_\_\_ Evaluator\_\_\_\_\_

Dates of Evaluation \_\_\_\_\_

Area assessed	What I already <u>K</u> now about myself	What I <u>W</u> ould like to know about myself	What I <u>L</u> earned about myself through vocational evaluation
Interest			
Learning style			
Temperament			
Aptitude			
Common Themes	Strengths	Areas of Need	Summarize your results in your own words

# Appendix D

## Sample Portfolio

### Career Portfolio

Artifacts (video, work samples, audio), Reflection (internalization and validation of assessment findings), Observations and checklist  
Interpretation (artifacts and observations), Summary (meaningful to consumer)

Introduction of Staff  
Personal Statement, Career Aspirations, Personal Philosophy, Hobbies, Personal Strengths

#### Career Exploration

Career Plan  
Goals  
Top career options  
Timeline  
Education\Training  
Strengths & Needs  
Resources

College/Training Research  
Community college  
Four-year college  
Apprentices  
OJT  
Military  
Lifelong learner

Paying for Training  
Financial Aid  
Scholarships  
Savings plan

#### Career Exploration

Career Research  
Education  
Salary  
Training  
Skills  
Outlook

Discrepancy Analysis  
Do side by side match of self and careers of interest

Narrowing Focus  
Best career options  
Career ladder  
Plan to resolve discrepancy  
Immediate employment

The World of Work  
Job seeking  
Keeping the job  
Accommodations  
Workplace culture  
Benefits  
Advancement

#### Understanding Self

Self-Awareness  
Personal Data  
Aptitude  
Learning Style  
Values  
Profile Summary  
Goals

Skills and Certificates  
Licenses  
Certificates  
Work history

Training/Educ.  
Diplomas  
Degrees  
Transcripts  
Competencies

Employability  
Resume  
Cover Letter  
Recommendations  
SCANS  
Perf. Evals  
Checklists

Awards and Accomplishments  
Awards  
Recognitions  
Articles  
Accomplishments

## Sample Electronic Portfolio Pages



Community Preservation and Development Corporation

*"Creating success with training and technology"*

HOME

TRAINING@CPDC

ABC

### Digital Portfolio System

Welcome to the CPDC Career Portfolio



Portfolio Tour  
**NEW USERS**



CPDC Students and GWU Students  
**ENTER YOUR PORTFOLIO**



**Staff and Administrator Login**

This is the opening page of system. Consumers enter through the student assessment section.



Community Preservation and Development Corporation

*"Creating vibrant communities through innovation and partnerships"*

HOME

TRAINING@CPDC

ABOUT CPDC

### Gwen Jones Assessment Profile



Understanding Self

Career Exploration

Decision Making / Skills

#### Introduction

Thank you for visiting my assessment and career portfolio!

I have organized my site to give visitors an easy tool to learn about my experience, training and interests. At this site you will find in-depth background data, validated education and training information, examples of some recent work product.

#### Goals

My professional goals include wanting to be a para-legal one day. In order to get a good job I must first prepare myself for going to college. I believe that by training here at CPDC and getting credits for college, it would offer me a great start into my future.





**SELF AWARENESS**

- Values
- Appitude
- Learning Style
- Temperment
- Academic
- Workplace Skills

**SKILLS/CERTIFICATION**

- Work History
- Certifications
- Transferable
- Transcripts

**TRAINING AND EDUCATION**

- College
- High School
- Training


**EMPLOYABILITY**

- Resume
- SCANS
- Awards
- Accomplishment's

Understanding Self Menu

The flow of the portfolio is based on the phases of career development created by the National Occupational Information Coordinating Committee.

## Gwen Jones Assessment Profile : Assessment : Interest



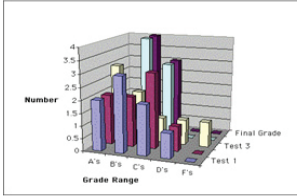
**Student Reflection**

Do I feel that my true interest are reflected in the assessment findings?

After working with Ms. Denton and talking to her about the areas that I am interested in, I feel like I was able to better define the interest I have and also find other areas that would be of interest in the future. I have always wanted to help people using the law and this is a great way to begin and have defined some core interest areas that would assist me.

**Interests Assessment**

**Results**



**Assessment Findings/ Evaluator Comments**

During the initial interview, Gwen expressed interest in the following occupations:

- Law - Study of Law
- Law Research
- Nursing
- Veterinary Science
- Teaching (Kindergarten)

Based upon Gwen's responses to the Vocational Education Career Exploration Survey, she has a high level of interest in the following career categories:

- Performing
- Service

[update](#)
[clear](#)

In the Understanding Self Section, there are four areas. The self-awareness section is where all of the assessment information is stored.

Above is a sample of assessment data added to Gwen's portfolio. Each assessment area has its own section under self-awareness. There is a space for the evaluator's summary and a section for Gwen's reflection.

# Appendix E

## E-Collaboration Tools

Product	Maker	Purpose	Features
Centra	Centra Software	Web conferencing	Application and document sharing, calendar, email, meetings and conferences
Community Zero	Ramius	Online collaboration, meetings and conferences	<ul style="list-style-type: none"><li>• Document sharing</li><li>• Discussion board</li><li>• Calendar</li></ul>
Elluminate	Elluminate, Inc	Web conferencing Online collaboration File sharing	<ul style="list-style-type: none"><li>• Online conferencing</li><li>• Application sharing</li><li>• White board</li><li>• Synchronous collaboration</li></ul>
Groove Workspace	Groove Networks	Online conferencing and collaboration	File sharing, online conferencing, synchronous collaboration

Product	Maker	Purpose	Features
Intranets.com On-line col-laboration	Intranets.com, Inc.	Intranet set-up and hosting suite	File sharing, online conferencing, database, discussion, application sharing
Microsoft Live	Microsoft	Online meetings, conferences and col-laboration	Application and document sharing, whiteboard
Share Point	Microsoft	Online meetings and col-laboration	<ul style="list-style-type: none"> <li>• Workspace, data and application sharing, online meeting, text messaging, discussion</li> <li>• Fully integrated with Microsoft Office system</li> </ul>
VideoCom	Video Cafe Online	Video conferencing	<ul style="list-style-type: none"> <li>• Video, voice and text.</li> <li>• White board and document sharing</li> </ul>
Viditel	Santa Cruz Networks	Online conferencing and collaboration	Text messaging, video on the internet, application and document sharing