

**VOCATIONAL EVALUATION AND
CAREER ASSESSMENT
PROFESSIONALS JOURNAL**

**Spring 2011
Volume 7
Number 1
Special Issue**



VECAP

VECAP

Vocational Evaluation and Career Assessment Professionals



**VOCATIONAL EVALUATION
AND CAREER ASSESSMENT PROFESSIONALS JOURNAL**

PROFESSIONAL JOURNAL OF
VOCATIONAL EVALUATION AND
CAREER ASSESSMENT PROFESSIONALS

Spring 2011
VOLUME 7
ISSUE 1
SPECIAL ISSUE

EDITORS

**Carolyn R. Ahlers-Schmidt,
Ph.D.**

Research Assistant Professor
Office of Research
University of Kansas School
of Medicine – Wichita
1010 N. Kansas
Wichita, KS 67214
Phone: 316-293-1810
Fax: 316-293-2686
E-mail: cschmidt3@kumc.edu

**Steven R. Sligar, Ed.D.,
CVE, RPVE**

Associate Professor
Director Graduate Program in
Vocational Evaluation
Department of Rehabilitation
Studies
Allied Health Building Mail
Stop 668
Greenville, NC 27858
Phone: 252-744-6293
Fax: 252-744-6302
E-mail: sligars@ecu.edu

Min Kim, M.S.

Managing Editor
Department of Rehabilitation
Studies
Allied Health Building Mail
Stop 668
Greenville, NC 27858
Phone: 252-744-6300
Fax: 252-744-6302
E-mail: kimm09@ecu.edu

CONSULTANT REVIEWERS

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Publishing, Subscription and Advertising Offices: 5500 University Parkway / Room CE-120
San Bernardino, CA 92407

Published twice a year. Annual institutional rate: US \$120 Prices are subject to change without notice.

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Vocational Evaluation and Career Assessment Professionals
5500 University Parkway / Room CE-120
San Bernardino, CA 92407
Phone 909-537-3696 **Fax** 909-922-7580
office@vecap.org

VECAP MISSION

The Vocational Evaluation and Career Assessment Professionals (VECAP) is a nonprofit organization originally founded in 1967 to promote the professions and services of vocational evaluation and work adjustment. Formerly known as the Vocational Evaluation and Work Adjustment Association (VEWAA), the name was changed in 2003 to better reflect the focus of the organization as well as emphasize the independent status of the organization. This group has no affiliation with the National Rehabilitation Association (NRA) or the NRA/VEWAA.

The VECAP organization is committed to advance and improve the fields of vocational evaluation and career assessment and represents the needs of the professionals who provide those services. Its scope of services will encompass individuals who need assistance with vocational development and/or career decision-making.

VECAP is comprised of membership of professionals who provide vocational evaluation, assessment, and career services and others interested in these services.

VECAP members identify, guide, and support the efforts of persons served to develop and realize training, education, and employment plans as they work to attain their career goals.

For membership information visit VECAP.org.

EDITORIAL

Welcome to the special edition of the VECAP Journal. We have decided to combine the regular journal (Spring 2011 Vol. 7 #1) with the papers and abstracts from the 14th National Forum on Issues in Vocational Assessment Finding Your Career Path through the Lifecycle.

In the current issue of the journal you will find three articles from authors who represent the professional diversity in VECAP. Martha Chapin and Donald Holbert are faculty in a university setting and they offer a validation of two instruments: The Sense of Well-Being Inventory (SWBI) and the World Health Organization Quality of Life- BREF (WHOQOL-BREF). Not only do the authors demonstrate the validity of these two instruments they also discuss the importance of collecting and using holistic information in the planning and delivery of rehabilitation services. In the second article Jack Musgrave, who is a practicing vocational evaluator, provides a very practical and replicable description of how a community rehabilitation program was able to develop a screening process for six jobs for a specific employer. The screening, which is based in the O*Net Abilities Data Elements, has proven to be successful not only because of the number of individuals placed but also helped with a successful CARF application. Karen Ogden-Weiss, who is in private practice and an advanced doctoral student, reviews the American Counseling Association's book on assessment by Hood and Johnson.

VECAP is pleased to present papers from the 14th Issues Forum. Presenters had the option of submitting a paper, PowerPoint, notes/handouts, or a combination. The Papers and Abstracts section of this special issue includes all of the papers submitted for publication and abstracts of the proposals of all presentations. Contact information for all the presenters is included as well.

The five papers are representative of the variety of topics addressed during the conference. The importance of developing new instruments is evidenced by Bonnie Canon's paper on the *Cannon Picture Interest Inventory*. Suggestions to improve practice are seen as Sam Castiglione makes the *Case for Using Two Career Interest Surveys*. Craig Johnson represents vocational evaluators who are in (or may want to enter) private practice. He discusses the *Vocational Evaluator as an Expert in Social Security*. Steve Sligar and Chad Betters examine the profession as they ask *VEWAA, VECAP and CVE: Where have We Been? Where are We Headed?* Finally, Fran Smith describes (and if you were at the conference demonstrated) *Social Media: New Opportunities for the Profession*. The section with 27 abstracts further represents the diversity of topics covered. Conference attendees received a CD with the PowerPoint slides and other media. This is posted at www.vecap.org

On last comment about the Issues Forum is a shout out to two professional organizations that contributed to the conference. The president of the National Career Development Association presented a paper about NCDCA and VECAP as professional partners. The Vocational Evaluation and Work Adjustment Association sponsored a feature session on assistive technology and was a co-sponsor of a general session on certification and credentialing. A big VECAP thanks and tip of the hat to our colleagues.

With this issue we say adios to Cari Schmidt. She has new responsibilities and challenges at her job. The additional time requirements do not permit her to continue as co-editor. We thank her for all the work she has done and wish her the best as she moves on.

We look forward to our continuing dialog with you and, of course, receiving your manuscripts.

Cari Schmidt and Steven Sligar, Co-editors
Min Kim, Managing Editor

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VECAP JOURNAL GUIDELINES FOR PUBLICATION

Editorial Guidelines

The Vocational Evaluation and Career Assessment Professionals Journal (Journal) is an official publication of VECAP. The purpose of the Journal is to advance knowledge and practices in the fields of vocational evaluation, career assessment, and work adjustment. The Journal has three target audiences: practitioners and other professionals, educators, and consumers. The Journal provides readers with critical information to inform their practice in assessment or evaluation and therapeutic adjustment services; all with a vocational perspective. Practitioners, educators, researchers and consumers may submit a manuscript for review. You do not have to be a member of VECAP to submit.

The Journal seeks the following types of manuscripts: research; theory building; perspectives on vocational evaluation or career assessment; reviews of books, tests, work samples; or other related topics of interest.

Manuscript Submission

1. Use the Manuscript Review Form (see VECAP.org) to determine if the manuscript is ready for submission.
2. Submit the manuscript as an email attachment to Journal@VECAP.org.
3. Receive a confirmation email (within 1-2 days) with manuscript review number.
4. Manuscript is blind reviewed by the Editorial Board or invited reviewers who have expertise in a specific topic (typically requires 3-4 weeks).
5. Receive status email with one of the following conditions: accepted, accepted with revisions, or rejected.

Submission Guidelines

Each manuscript must be prepared according to the current edition of the *Publication Manual of the American Psychological Association*. All manuscripts except book reviews and brief reports require a 150-250 word abstract with 3 keywords. An additional Journal requirement is to include author bio(s), which is a single page that contains the author's name(s), credentials, and short (100 words) biographical information that will appear in the Journal if the article is published.

Note: More detailed submission information may be found online at VECAP.org.

For information on the status of your manuscript contact:

Min Kim, Managing editor, Journal@VECAP.org

For all other concerns, contact the editors at Journal@VECAP.org or directly:

Carolyn R. Schmidt, Co-editor, cschmidt3@kumc.edu

Steven R. Sligar, Co-editor, sligars@ecu.edu

Min Kim, Managing editor, kimm09@ecu.edu

VOCATIONAL EVALUATION AND CAREER ASSESSMENT PROFESSIONALS JOURNAL

Volume 7

Spring 2011

Issue 1

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REGISTRY OF PROFESSIONAL VOCATIONAL EVALUATORS

P.O. Box 158
Menomonie, WI 54751-0158
www.pveregistry.org
715-308-0907

APRIL 18, 2011

Dear Editor,

As your membership is well aware, the credentialing body, the Commission on Certification on Work Adjustment and Vocational Evaluation (CCWAVES), that provided vocational evaluators to obtain the credential of Certified Vocational Evaluator (CVE) was suspended in September 2008. Since then, the Commission on Rehabilitation Counselor Certification (CRCC) has taken over the maintenance and renewal of current CVEs. New entrants into this field, especially recent graduates from various higher educational programs have not been able to obtain their professional credential. To address this gap, in May 2009, representatives from the Vocational Evaluation and Career Assessment Professionals (VECAP) and Vocational Evaluation and Work Adjustment Association (VEWAA) organizations have been meeting as an appointed ad-hoc Task Force to explore options for an alternate credential. This task force is composed of nine (9) members.

The result of this task force's efforts, including a national market analysis, is a new credential named Professional Vocational Evaluator (PVE), administered by the Registry of Professional Vocational Evaluators (RPVE). While the philosophy of RPVE is one of inclusiveness, the intent is to aid in the promotion and quality of the vocational evaluation profession. The purpose of the Registry is to provide a credential for vocational evaluators who have demonstrated attainment of acceptable standards of education, experience, and knowledge, based on the relevant knowledge and skill domains identified from the most recent practice analysis. Professional Vocational Evaluators (PVE) will, therefore, contribute to the promotion of informed choice in the career development process, vocational rehabilitation planning, employment outcomes and/or workplace productivity by providing vocational evaluation services to guide individuals with employment or career barriers. We are delighted to inform the members of VECAP, that RPVE, a non-profit organization, has been launched, effective April 1, 2011. Application Form, Application Guide, and Guidelines for Professional Conduct can be found in the website: www.pveregistry.org. In line with the RPVE Bylaws, a Board is fully functional as are its list of committees to include: Executive, Eligibility Compliance and Registration Renewal, Appeals, Professional Conduct, Standards, Public Relations and Communications, Nominations, and Finance.

Please feel free to check out the RPVE website at www.pveregistry.org and more importantly, please spread the word around to other practitioners providing vocational evaluation services.

Sincerely,

John W. Lui, Ph.D., MBA, CRC
President and Executive Director

Psychometric Validation of the SWBI and the WHOQOL-BREF for Vocational Rehabilitation Consumers

Martha H. Chapin, PhD, LPC, CRC

Donald Holbert, PhD

East Carolina University

Abstract

The Sense of Well-Being Inventory (SWBI) and the World Health Organization Quality of Life- BREF (WHOQOL-BREF) factorial structure were examined and compared for consumers with a spinal cord injury who had received rehabilitation services from a southeastern state vocational rehabilitation services office. A four-factor design was identified for both the SWBI (physical well-being, psychological well-being, financial well-being, and family and social well-being) and the WHOQOL-BREF (physical health, social relationships and environment, life satisfaction, and psychological), although with slightly different factors from the WHOQOL-BREF domains (physical, family and social, financial, and psychological). The SWBI and WHOQOL-BREF could be used by vocational evaluators to provide additional medical, psychological, social, economic, and environmental data in their evaluation reports. Additionally, these instruments could be used to assess a consumer's quality of life at the onset of vocational evaluation services and after the completion of rehabilitation services.

Psychometric Validation of the SWBI and the WHOQOL-BREF for Vocational Rehabilitation Consumers

Quality of life (QOL) has long been considered as a multidimensional rehabilitation outcome measure for educational and human service intervention (Bishop & Feist-Price, 2002; Livneh, 1988; Roessler, 1990). QOL assesses a consumer's status and is used as a program evaluation outcome measure to help address issues of accountability in rehabilitation (Bishop, Chapin, & Miller, 2008; Roessler, 1990). The Thirtieth Institute on Rehabilitation Issues (Thirtieth IRI; 2003) has recommended vocational evaluators assess the improved QOL a consumer achieves as a result of vocational evaluation (VE) services. The World Health Organization (WHO) defines QOL as how individuals perceive their life position in relation to their culture,

values, goals, expectations, standards, and concerns (WHOQOL Group, 1995; World Health Organization, 1997). The objective (e.g., status of health and disability) and subjective measures (e.g., satisfaction with life) of life quality (Bishop & Feist-Price, 2002; Dijkers, 1997; Roessler, 1990) help vocational evaluators and career assessment professionals better understand the consumer's satisfaction with life and areas of his or her life that may impact on successful rehabilitation planning (Bishop & Feist-Price, 2002).

Two instruments used to measure QOL are the Sense of Well-Being Inventory (SWBI) and the World Health Organization Quality of Life-BREF (WHOQOL-BREF). The SWBI (Rubin, Chan, Bishop, and Miller, 2003) was designed for consumers with disabilities receiving rehabilitation services to measure subjective well-being and subjective QOL. In creating the SWBI,

Rubin et al (2003) hypothesized that consumers' participation in rehabilitation was based on their expectation that receiving rehabilitation services would enhance their QOL, thus the SWBI items are an a priori categorization of QOL (i.e., physical well-being, psychological well-being, social well-being, and economic well-being). The SWBI can be used to evaluate rehabilitation outcomes (Chapin, Miller, Ferrin, Chan, & Rubin, 2004).

In Rubin et al.'s (2003) original research on private rehabilitation consumers, a five-factor solution was developed (physical well-being and associated feelings about self, freedom from psychological distress, economic security, family and social support, and medical care). Chapin et al. (2004) provided further validation of the factorial and concurrent validity of the SWBI using a sample of Canadians with spinal cord injuries (SCI). The authors found a four-factor structure (psychological, financial, family and social, and physical well-being) similar to the original study by Rubin et al. However, the physical well-being factor in Chapin et al. was more internally consistent than in Rubin et al.'s study because it had only physical well-being items in the factor. The two medical factors from the Rubin et al. study were distributed to other factors thus reducing the SWBI from a five to a four-factor solution. When Chapin et al. (2004) compared the SWBI to the WHOQOL-BREF, there were high to moderate correlations between the factors on the SWBI and the WHOQOL-BREF domains (psychological, physical, family and social, and financial), thus providing support for the concurrent validity of the SWBI. This four-factor structure for the

SWBI has also been validated by Catalano, Kim, Ditchman, Shin, and Chan (2007) using a community sample of Canadians with SCI, and Keegan, Lin, Zheng, Allen, and Chan (2009) using a sample of vocational rehabilitation consumers with various disabilities. The above mentioned studies provide further support for using the SWBI to evaluate other rehabilitation outcomes in addition to employment.

The WHO wanted to develop a QOL instrument that could be used cross culturally, would reinforce its support of a holistic approach to health and health care, and promote mental, social, and physical well-being. From this interest, the World Health Organization Quality of Life-100 (WHOQOL-100) was developed (WHOQOL Group, 1995) and from the WHOQOL-100 a 26 item shortened version of this instrument called the WHOQOL-BREF (Bonomi & Patrick, 1997; WHOQOL Group, 1998) was created. The WHOQOL-100 has 100 items classified into six domains (physical, psychological, independence, social, environment, and spiritual) and 24 facets or subdomains that describe each QOL domain (Bonomi, Patrick, Bushnell, & Martin, 2000; WHOQOL Group, 1995). The WHOQOL-BREF was developed by selecting one question from each of the 24 facets from the WHOQOL-100 and including two items from the Overall Quality of Life and General Health facet. Using confirmatory factor analysis, a four domain (physical health, psychological, social relationships, and environment) solution was suggested for the WHOQOL-100, which was then tested and an acceptable fit was achieved for both the WHOQOL-100 and WHOQOL-BREF. Both instruments have excellent discriminant validity in distinguishing

between ill and well respondents. The WHOQOL-BREF is a satisfactory substitution for the WHOQOL-100 (WHOQOL Group, 1998). This four domain model was also supported by Skevington, Lotfy, and O'Connell (2004), who tested the psychometric properties of the WHOQOL-BREF with primarily sick and well adults from 23 countries. They used a confirmatory factor analysis to test internal consistency, item-total correlations, discriminant validity and construct validity. The results support the WHOQOL-BREF as having good to excellent psychometric properties in reliability and, in preliminary tests, of validity. Cronbach alpha was 0.82 for physical health, 0.81 for psychological, 0.80 for environment, and 0.68 for social relationships for the total sample. This research supports the WHOQOL-BREF as a multidimensional, cross cultural, subjective assessment of QOL.

A validity study (Jang, Hsieh, Wang, & Wu, 2004) of the WHOQOL-BREF using a multitrait analysis that compared persons with SCI with non-SCI respondents all from Taiwan provided support for using the WHOQOL-BREF for persons with SCI. This research also supported the four domain model. Cronbach alpha was greater than 0.7 for all domains except social relationships (0.54). There was satisfactory discriminant validity between the SCI and non-SCI respondents. Miller, Chan, Ferrin, Lin, and Chan (2008) also reported this four-factor model on a sample of Canadians with SCI. The authors recommend the WHOQOL-BREF as a measure of subjective QOL and support its use in program evaluation and research to enhance the definition of successful rehabilitation beyond employment outcomes. Chan

and Rubin (2003, as cited in Chapin et al., 2004) recommended that the SWBI be validated with other rehabilitation consumer samples and external criteria.

The purpose of this study was to examine the factorial structure of both the SWBI and the WHOQOL-BREF on a cohort of subjects who had incurred SCIs and received services from a state vocational rehabilitation services office, and to assess correlations between the SWBI factors and the WHOQOL-BREF factors. The research hypothesis was that factors from the SWBI would positively correlate with corresponding factors from the WHOQOL-BREF.

Method

Participants

Participants were consumers with SCI who had been closed successfully rehabilitated (Status 26) and unsuccessfully rehabilitated (Status 28) from January 2003 through June 2007 after receiving rehabilitation services provided by a southeastern state Division of Vocational Rehabilitation Services (DVRS) office. Duplicate cases and cases closed due to death, as well as consumers desiring a Spanish language preference, with a primary or secondary condition of mental or emotional disorder, or who were incarcerated were excluded from the survey. Thirty one participants who were unemployed after receiving rehabilitation services and 36 participants who were employed following receipt of rehabilitation services were recruited for this study.

The age and gender of the respondents and nonrespondents were similar; however, there was a difference based on race. Of the unsuccessfully rehabilitated, 39% of the respondents and 37% of the nonrespondents were

members of minority groups while 44% of the successfully rehabilitated respondents and 24% of the nonrespondents were members of minority groups. Participants in this study were part of a larger study that examined positive and negative affect, life satisfaction, depression (Chapin & Holbert, 2009), quality of life, and subjective well-being (Chapin & Holbert, 2010).

Instruments

Demographic questionnaire. A demographic questionnaire was provided to participants to gather information about their age, race, and gender. Consumers were also asked their level of injury (C1-S5), how many years it had been since their injury, their education level (no high school diploma, high school diploma/GED, some college but no degree, associate's, bachelor's, master's, or doctoral degree), and their employment status (full-time, part-time, not working) prior to their injury and currently.

SWBI. The SWBI (Rubin et al., 2003) was designed for consumers with disabilities receiving rehabilitation services as a measure of subjective well-being and subjective QOL. There are 36 items that measure four subscales (psychological well-being, financial well-being, family and social well-being, and physical well-being; Chapin et al., 2004). A 4-point Likert type rating scale is used that asks consumers to indicate their extent of agreement with each SWBI item (Rubin et al., 2003). Coefficient alpha was reported as 0.87, 0.88, 0.84, and 0.79 in Chapin et al.'s (2004) research.

WHOQOL-BREF. The WHOQOL-BREF (Bonomi & Patrick, 1997; WHOQOL Group, 1998) assesses QOL cross culturally and is a 26 item instrument that measures four domains (physical capacity, psychological, social relationships, and environment), and provides an individual overall QOL and general health score (Bonomi & Patrick, 1997; University of Washington, 2005). The WHOQOL-BREF uses a five point Likert type rating scale (1 – *very poor* to 5 – *very good*) asking respondents to consider their standards, hopes, pleasures, and concerns over the past two weeks (Bonomi & Patrick, 1997; University of Washington, 2005). The WHOQOL-BREF displays good discriminant validity, content validity, and test-retest reliability (WHOQOL Group, 1998). Cronbach alpha for the WHOQOL-BREF ranged from 0.80-0.82 for physical health, 0.75-0.77 for psychological, 0.66-0.69 for social relationships, and was 0.80 for environment (WHOQOL Group, 1998).

Procedure

An ex post facto research design was used. Six hundred and four former consumers of a southeastern DVRS agency were contacted and asked to participate in this survey. Participants received a prenotice letter requesting their participation and indicating the surveys would take one to one and a half hours to complete. A letter of support from the Director of DVRS was also enclosed. Two weeks later, the DVRS consumers received the survey packet which was followed in two weeks by a thank you/reminder postcard (Dillman, 2000).

Data Analysis

Factor analysis was used to extract factors from the SWBI items and

WHOQOL-BREF items via a principal axis factoring extraction method followed by a promax rotation. Psychometric adequacy of the correlation matrices was determined using the Kaiser-Meyer-Olkin measure and Bartlett's test of sphericity. Based on a review of the literature, and with verification using Cattell's scree plot, a four-factor design for the SWBI (Catalano et al., 2007; Chapin et al., 2004) and the WHOQOL-BREF (Jang et al., 2004; Miller et al., 2008; Skevington et al., 2004) was used. The Pearson correlation coefficient was used to correlate factor scores with each other and with selected demographic variables. Data analyses were completed using SPSS 17.0.

Results

Demographics

The response rate for the survey was 15%, representing usable responses from 67 participants. DVRS reports a 13% response rate to satisfaction surveys sent out to consumers who received services from the agency (B. Coberly, personal communication, February 1, 2008). The mean age of the respondents was 46 years, 46% were male, and 42% were minorities. Forty-nine percent had some college education, and of these 40% had at least a bachelor's degree. The mean time since injury was 9.4 years, and 47% of the respondents were currently working full or part time.

Factor Analyses

SWBI. Psychometric adequacy of the correlation matrices was determined using the Kaiser-Meyer-Olkin measure (KMO = 0.70) which indicated an

average measure of sampling adequacy. The Bartlett's test of sphericity ($\chi^2 = 1476.2, df = 630, p < .001$) was completed indicating the appropriateness for factor analysis. As previously indicated, four-factors were extracted and Cattell's scree plot was used to validate this as an appropriate number of factors. The first four components explained about 60% of the variance. All communalities were in excess of 0.6, and only four factors were retained from 36 items, suggesting that the small sample size is likely to be adequate (MacCallum & Preacher, 2002). Additionally, the sample size exceeds the $n=50$ recommended by Arrindell and van der Ende (1985) and meets the subjects-to-variables ratio of 2:1 recommended by Kline (1979). The rotated structure matrix is presented in [Table 1](#).

- Factor 1-Physical Well-being and Associated Feelings about Self. Thirteen items describe how participants feel about their SCI. There was high internal consistency based on the Cronbach's alpha coefficient of 0.91.
- Factor 2-Psychological Well-being. Eleven items focus primarily on the participants' emotional state with four items reverse scored to describe psychological adjustment rather than emotional distress. There was high internal consistency based on the Cronbach's alpha coefficient of 0.91.
- Factor 3-Financial Well-being. Eight items depict the participants' financial perspective with four items reverse scored to indicate financial well-being rather than financial distress. There was high internal consistency based on the Cronbach's alpha coefficient of 0.84.

Table 1.

SWBI Structure Matrix

Item	Factor			
	1	2	3	4
<u>Factor 1 - Physical Well-being</u>				
29. I feel good about myself.	0.86			
22. I enjoy life.	0.84			
27. I have a positive outlook on life.	0.81			
28. I have a positive influence on others.	0.78			
21. I can work.	0.70			
34. I have adequate energy.	0.68			
26. My health is good.	0.65			
5. I am happy with my employment situation.	0.63			
35. I have job advancement opportunities.	0.62			
4. I am an important member of my family.	0.60			
12. I accept the positives and negatives that are associated with my disability.	0.59			
36. I have good medical services.	0.50			
9. I am well adjusted to my disability.	0.48			
<u>Factor 2 – Psychological Well-being</u>				
2. I feel lonely.		0.86		
3. I frequently feel down.		0.79		
13. I am in control of my life.		0.77		
33. I am happy with my social life.		0.72		
15. My housing situation is satisfactory.		0.72		
30. I am satisfied with my physical appearance.		0.70		
17. I frequently feel nervous.		0.69		
1. I get frustrated about my disability.		0.67		
24. I feel good about my physical stamina.		0.61		
18. People like being with me.		0.60		
14. I am happy with my job skills.		0.58		
<u>Factor 3 – Financial Well-being</u>				
8. I am happy with my job choices.			0.73	
7. I can afford to go to the movies or out to eat.			0.72	
20. Employers don't want to hire me.			0.70	
6. I can afford the medical services I need.			0.64	
10. I frequently worry about money.			0.62	
19. I feel good about my financial future.			0.62	

11. I feel people view me differently because of my disability.	0.54
25. I feel awkward in social situations.	0.32
<u>Factor 4 – Family and Social Well-being</u>	
23. I have someone that I can talk to about my problems.	0.78
16. People take advantage of me.	0.71
31. I receive emotional support from my family.	0.62
32. I have friends who care about me.	0.48

Note. To indicate well-being item # 2, 3, 10, 17, and 20 were reverse scored.

- Factor 4-Family and Social Well-being. Four items address emotional support with one item reverse scored to indicate well-being instead of distress. There was moderate internal consistency based on the Cronbach’s alpha coefficient of 0.78.

Inter-correlations, means, and standard deviations for the factors are reported in [Table 2](#).

WHOQOL-BREF. The Kaiser-Meyer-Olkin statistic ($KMO = 0.91$) indicated an excellent measure of sampling adequacy. The Bartlett’s test of sphericity ($\chi^2 = 1324.8, df = 325, p < .001$) indicated the appropriateness for factor analysis. As previously indicated, four-factors were extracted and Cattell’s scree plot was used to validate this as an appropriate number of factors. The first four components explained 68% of the variance. Twenty-four of 26 communalities were in excess of 0.6, and only four factors were retained from 26 items, suggesting that the small sample size is likely to be adequate (MacCallum & Preacher, 2002). Additionally, the sample size exceeds the $n=50$ recommended by Arrindell and van der Ende (1985) and meets the subjects-to-variables ratio of 2:1 recommended by Kline (1979). The rotated structure matrix is presented in [Table 3](#).

- Factor 1-Physical Health. Seven items describe this factor. Two items were reverse scored to indicate physical well-being rather than physical distress. There was very high internal consistency based on the Cronbach’s alpha coefficient of 0.94.

- Factor 2-Social Relationships and Environment. Five items describe this factor. There was high internal consistency based on the Cronbach’s alpha coefficient of 0.85.

- Factor 3- Life Satisfaction. Six items describe this factor. One item was reverse scored to indicate well-being rather than distress. There was high internal consistency based on the Cronbach’s alpha coefficient of 0.86.

- Factor 4- Psychological. Eight items describe this factor. There was high internal consistency based on the Cronbach’s alpha coefficient of 0.91.

Inter-correlations, means, and standard deviations for the factors are reported in [Table 2](#).

Correlation Analysis

SWBI. Inter-correlations among the four SWBI factors were all positive, in the low to moderate range, and all were statistically significant ($p < 0.05$). The smallest correlation was between the social and financial factors ($r = 0.30, p = .037$), while the largest was between the

physical and psychological factors ($r = 0.61, p < .001$; [Table 2](#)).

When the SWBI was correlated with demographic variables, time since injury had a low correlation with the SWBI physical well-being factor ($r = 0.391, p = .007$). Current annual income had a low correlation with the SWBI financial well-being factor ($r = 0.394, p = .007$). Education at application had a low correlation with the SWBI physical well-being factor ($r = 0.364, p = .009$) and a moderate correlation with the psychological ($r = 0.485, p < .001$) and financial well-being factors ($r = 0.498, p < .001$), while current education had a low correlation with the SWBI psychological factor ($r = 0.370, p = .008$) and a moderate correlation with the financial well-being factor ($r = 0.422, p = .002$).

WHOQOL-BREF. Inter-correlations among the four WHOQOL-BREF factors were all positive and moderate in magnitude, and all were statistically significant ($p < .001$). The smallest correlation was between the social and physical factors ($r = 0.62, p < .001$), while the largest was between the physical and psychological factors ($r = 0.73, p < .001$; [Table 2](#)).

When the WHOQOL-BREF was correlated with selected demographic variables, time since injury had a low correlation with the physical health ($r = 0.314, p = .014$) and the life satisfaction factors ($r = 0.313, p = .014$). Education at application had a low correlation with the WHOQOL-BREF life satisfaction factor ($r = 0.393, p = .001$) and moderate correlations with the WHOQOL-BREF physical health ($r = 0.429, p < .001$), social/environment ($r = 0.410, p = .001$), and psychological factors ($r = 0.488, p < .001$). Current

education had a moderate correlation with the WHOQOL-BREF physical health factor ($r = 0.400, p = .001$) and a low correlation with social/environment ($r = 0.320, p = .009$), life satisfaction ($r = 0.325, p < .008$), and psychological factors ($r = 0.397, p = .001$). Current annual income did not correlate with any of the WHOQOL-BREF factors.

SWBI and WHOQOL-BREF.

When the SWBI factors were correlated with the WHOQOL-BREF factors, all sixteen of these correlations were positive, and all except one were statistically significant ($p < .001$). The lowest correlation was between the SWBI social factor and the WHOQOL-BREF physical factor ($r = 0.26$, not significant), and the highest was between the SWBI psychological factor and the WHOQOL-BREF social factor ($r = 0.89, p < .001$). In general, the SWBI physical and psychological factors were relatively more highly correlated, and the SWBI financial and social factors relatively less highly correlated with the WHOQOL-BREF factors. These correlations are reported in [Table 2](#).

Table 2.

Statistics on the Factors Derived from the SWBI and WHOQOL-BREF Instruments

	SWBI Phys	SWBI Psyc	SWBI Fin	SWBI Fam/soc	WHOQOL Phys	WHOQOL Soc/environ	WHOQOL Life satis	WHOQOL Psyc
SWBI Phys	1.00				0.67**	0.56**	0.63**	0.78**
SWBI Psyc	0.61**	1.00			0.70**	0.89**	0.71**	0.78**
SWBI Fin	0.45**	0.46**	1.00		0.63**	0.51**	0.55**	0.50**
SWBI Fam/soc	0.40**	0.34*	0.30*	1.00	0.26	0.50**	0.50**	0.40**
WHOQOL Phys					1.00			
WHOQOL Soc/environ					0.62**	1.00		
WHOQOL Life satis					0.66**	0.63**	1.00	
WHOQOL Psyc					0.73**	0.69**	0.65**	1.00
Factor Mean	2.77	2.59	2.2	2.94	3.04	3.16	2.99	3.32
Factor SD	0.32	0.27	0.25	0.13	0.28	0.41	0.47	0.29
Cronbach alpha	0.91	0.91	0.84	0.78	0.94	0.85	0.86	0.91

Note. Upper left panel: Inter-correlations among SWBI factors.

Upper right panel: Correlations among SWBI factors and WHOQOL-BREF factors.

Center right panel: Inter-correlations among WHOQOL-BREF factors.

Lower left panel: Summary statistics for SWBI factors.

Lower right panel: Summary statistics for WHOQOL-BREF factors.

Phys = physical; Psyc = psychological; Fin = family and social; Soc/environ = social relationships and environment; Life satis = life satisfaction.

* $p < .05$. ** $p < .01$.

Discussion and Conclusion

The purpose of this study was to examine the factorial structure of both the SWBI and the WHOQOL-BREF on a cohort of subjects who had incurred SCIs and received services from a state vocational rehabilitation services office and to assess correlations between the SWBI factors and the WHOQOL-BREF factors. The factorial structure of the SWBI continues to be supported in this study with a four-factor design – physical, psychological, financial, and family and social well-being. There was high internal consistency in the physical, psychological, and financial well-being factors, and moderate internal consistency in the family and social well-being factor. The four derived SWBI factors were all positively inter-correlated in the low to moderate range, and all were statistically significant. Residents of the United States (US) were participants in this study and Rubin et al. (2003); however, Rubin et al. used private rehabilitation consumers, while this study used DVRS consumers with SCI.

The WHOQOL-BREF factor analysis resulted in a four-factor design – physical health, social relationships and environment, life satisfaction, and psychological. There was very high internal consistency in the physical health factor, while the social relationships, life satisfaction, and psychological factors had high internal consistency. The four derived WHOQOL-BREF factors were all moderately positively inter-correlated and all were statistically significant.

Although a four-factor model was supported, results differed from Miller et al. (2008) and Jang et al. (2004), whose research on persons with SCI supported

the same four-factors as the WHOQOL-BREF domains – physical, psychological, social, and environmental. The present study merged the social and environmental factors and identified a new factor labeled life satisfaction. More reliability and validity testing has been recommended for the WHOQOL-BREF (Jang et al., 2004; Skevington et al., 2004).

The SWBI was developed for program evaluation as a multidimensional, rehabilitation specific subjective QOL measure (Catalano et al., 2007; Chapin et al., 2004; Rubin et al., 2003). Measures of QOL often assess psychological, physical, social, and financial well-being (Bishop & Feist-Price, 2002; Padilla, Grant, & Ferrell, 1992) which were all factors identified in the SWBI. The WHOQOL-BREF also measures these factors, but measures the environment instead of financial (Bonomi et al., 2000; WHOQOL Group, 1995). This study identified a life satisfaction factor rather than environment.

Sample Size Considerations

The data used in this analysis is part of a larger study (Chapin & Holbert, 2009) which was powered to provide adequate comparisons between successfully and unsuccessfully rehabilitated SCI consumers on outcomes, such as positive and negative affect, life satisfaction, and depression. The factor analysis literature is replete with general sample size recommendations which tend to follow one of two guidelines. Either the minimum number of cases or the ratio of subjects-to-variables is the key criterion (Arrindell & van der Ende, 1985; MacCallum, Widaman, Zhang, & Hong,

Table 3.

WHOQOL-BREF Structure Matrix

Item	Factor			
	1	2	3	4
<u>Factor 1: Physical Health</u>				
17. How satisfied are you with your ability to perform daily living activities?	0.86			
3. To what extent do you feel pain prevents you from doing what you need to do?	0.84			
18. How satisfied are you with your capacity to work?	0.84			
2. How satisfied are you with your health?	0.83			
19. How satisfied are you with your abilities?	0.83			
15. How well are you able to get around?	0.80			
4. How much do you need medical treatment to function in your daily life?	0.77			
<u>Factor 2: Social Relationships and Environment</u>				
20. How satisfied are you with your personal relationships?		0.82		
23. How satisfied are you with the conditions of your living place?		0.81		
9. How healthy is your physical environment?		0.76		
25. How satisfied are you with your transportation?		0.72		
21. How satisfied are you with your sex life?		0.60		
<u>Factor 3: Life Satisfaction</u>				
22. How satisfied are you with your support from friends?			0.82	
26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?			0.77	
13. How available to you is the information you need in your day-to-day life?			0.70	
24. How satisfied are you with your access to health services?			0.70	
16. How satisfied are you with your sleep?			0.63	
12. Have you enough money to meet your needs?			0.58	
<u>Factor 4: Psychological</u>				
6. To what extent do you feel life is meaningful?				0.84
5. How much do you enjoy life?				0.83
1. How would you rate your quality of life?				0.74
10. Do you have enough energy for everyday life?				0.73
11. Are you able to accept your bodily appearance?				0.71
8. How safe do you feel in your daily life?				0.70
7. How well are you able to concentrate?				0.69
14. To what extent do you have the opportunity for leisure activities?				0.64

Note: Item # 3, 4, and 26 were reverse scored.

1999). Recommendations for an absolute minimum number of cases vary from $n=50$ (Arrindell & van der Ende, 1985) to $n=500$ (Comrey & Lee, 1992 as cited in MacCallum et al., 1999). Similarly, recommendations on the subjects-to-variables ratio vary from 2:1 (Kline, 1979) to 10:1 (Nunnally, 1978 as cited in MacCallum et al., 1999). Recent research has cast doubt on the need to adhere unequivocally to these standards (deWinter, Dodou, & Wieringa, 2009; MacCallum et al., 1999; MacCallum, Widaman, Preacher, & Hong, 2001). MacCallum et al. (1999) state that “good recovery of population factors can be achieved with samples that would traditionally be considered too small for factor analytic studies, even when N is well below 100” (p. 96). Their study showed that these smaller sample sizes can be adequate “when communalities are consistently high (probably all greater than .6)” (MacCallum et al., 1999, p. 96). Similarly, results of de Winter et al. showed that “when data are well conditioned ... EFA [exploratory factor analysis] can yield reliable results for N well below 50, even in the presence of small distortions” (p. 147). MacCallum et al. (2001) state that “our results show that if communalities are high, recovery of population factors in sample data is normally very good, almost regardless of sample size, level of overdetermination, or the presence of model error” (p. 636). Additional support for these findings can be found in Preacher and MacCallum (2002), who report the results of a Monte Carlo study which demonstrates that, “in studies characterized by low sample sizes the population factor structure can be adequately recovered if communalities are high, model error is low, and few factors are retained” (p. 153). These

same authors state in their conclusion that “as long as communalities are high, the number of expected factors is relatively small, and model error is low (a condition which often goes hand-in-hand with high communalities), researchers and reviewers should not be overly concerned about small sample sizes” (Preacher & MacCallum, 2002, p. 160). Our results section addressed the extent to which the data sets analyzed here met both the historical and the newer guidelines for sample size.

Generalizability will be limited due to the small sample size of former DVRS consumers with SCI from a southeastern state. Since these instruments were part of a larger group of instruments that took approximately one to one and a half hours to complete (see Chapin & Holbert, 2009, 2010), respondents may have chosen not to participate based on the survey length and the lack of financial incentive for all participants.

Recommendations for Practice

Vocational evaluators include medical, psychological, social, and economic data in their evaluation reports (Sligar & Thomas, 2009) and could use the SWBI and WHOQOL-BREF to help customize these reports for all consumers and their rehabilitation counselors. These instruments could provide additional data for the evaluator to use in determining possible obstacles to consumer success (Sligar & Thomas, 2009) and more specific information on quality of life. If vocational evaluators and career assessment professionals administered the SWBI, they could include in their evaluation report how the consumer responds to questions about physical well-being, psychological

well-being, financial well-being, and family and social well-being. In a related study using this sample (Chapin & Holbert, 2010) participants who were successfully rehabilitated following the receipt of DVRS services had higher physical, psychological, and financial well-being than the unsuccessfully rehabilitated participants. Although causality could not be assessed, having knowledge of subjective well-being at the beginning of rehabilitation could alter the rehabilitation services provided. If physical and psychological well-being scores were low, possibly medical or psychological interventions could be recommended and may influence the person's successful completion of rehabilitation services. Psychological (Chapin & Kewman, 2001) and health factors (Krause & Pickelsimer, 2008) have been reported as barriers to successful employment for people with a SCI.

Similar information could be obtained from administering the WHOQOL-BREF. Either the QOL factors derived from this study (physical health, psychological health, social relationships and environment, and life satisfaction) or the domains (physical health, psychological, social relationships, and environment), plus the overall QOL and general health score from the WHOQOL-BREF could be used to gather specific information about how the consumer feels about his or her QOL. Chapin and Holbert (2010) reported that successfully rehabilitated participants with SCI reported a higher QOL overall and in their physical health, psychological health, social relationships, and environment based on the results of the WHOQOL-BREF. If a vocational evaluator or career assessment professional learns that a

consumer is uncomfortable in his or her environment, further questioning could occur to determine if interventions could be recommended to address environmental concerns. These interventions may facilitate rehabilitation success as environmental barriers have been reported as obstacles to successful employment for people with a SCI (Chapin & Kewman, 2001).

Additionally, vocational evaluators want to assess the value of VE for the consumer and the impact of VE on the consumer's QOL (Thirtieth IRI, 2003). Bishop and Feist-Price (2002) recommend assessing QOL at the onset and successful conclusion of rehabilitation services to determine services needed during and following rehabilitation intervention. Since VE reports require follow up by the consumer and his or her rehabilitation provider, evaluators could use these QOL measures at the beginning of the evaluation and at the conclusion of rehabilitation to assess changes in the consumer's QOL since the VE (Thirtieth IRI, 2003). If QOL is also assessed at the conclusion of unsuccessful rehabilitation intervention, rehabilitation counselors and vocational evaluators may gain insights into barriers that hampered rehabilitation, learn that consumer's QOL was improved even though employment was not obtained, and be able to use these insights with future consumers. Using QOL assessments for program evaluation can also be helpful in understanding consumer satisfaction and recidivism (Bishop & Feist-Price, 2002). Rubin et al. (2003) cautioned against using QOL as an effectiveness measure for rehabilitation services at closure. Instead they recommended using QOL measures for long term follow-up to see how consumers' QOL

has improved once they have internalized the effects of rehabilitation on life functioning and employment.

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Biographical Sketches

Martha H. Chapin, PhD, LPC, CRC is currently the Director of the Undergraduate Rehabilitation Services Program. Her current interests include spinal cord injury, employment, and positive psychology. Contact information:

East Carolina University

CAHS – Department of Rehabilitation Studies

Mail Stop 668, 4425 Health Sciences Building

Greenville, NC 27834

252-744-6291

chapinm@ecu.edu

Donald Holbert, PhD is a professor of biostatistics. His current interests include applied statistics and multivariate analysis. Contact information:

East Carolina University

CAHS – Department of Biostatistics

Mail Stop 668, 2435 Health Sciences Building

Greenville, NC 27834

252-744-6045

holbertd@ecu.edu

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A Model for Developing a Specialized Vocational Assessment Using O*NET Abilities Data Elements

Jack R. Musgrave, M.S., CRC, CVE, LCPC
Southern Illinois University Carbondale
Evaluation and Developmental Center

Abstract

A community employer requested a comprehensive vocational evaluation services program develop a vocational assessment for the purpose of employing individuals with disabilities in six specific occupations. After completing job analyses, O*NET Abilities data elements were identified, assessment instruments were selected, and procedures were developed to conduct the assessments. This paper describes a systematic process that could be used as model for developing specialized vocational assessments for community employers. The one-day vocational assessment was implemented and considered effective based on stakeholder feedback and acknowledged by CARF as an excellent example of community collaboration.

Introduction

In 2008, a local branch of a major national distribution center (Distribution Center), met with state vocational rehabilitation (VR) officials and made a commitment to increase hiring of persons with disabilities to comprise up to 10% of the Distribution Center's workforce. The local VR district office was designated to coordinate these job placement efforts. To help make appropriate client referrals, the local VR counselors requested assistance from a community rehabilitation program's Certified Vocational Evaluator to develop a vocational assessment to help identify individuals with disabilities who would be capable of performing the selected occupations. This paper describes the dual process of developing and implementing the Distribution Center vocational assessment and meeting CARF standards for a Comprehensive Vocational Evaluation Services program (CVES).

Definition and Responsibilities of Comprehensive Vocational Evaluation Services

Vocational Assessment and Vocational Evaluation are similar but different in depth and scope and best represented by the following definition:

Level I: Screening- The initial process designed to arrive at a decision for providing additional services. This assessment typically consists of interviews, limited psychometric testing, and the collection of background information.

Level II: Clinical- this intermediate process involves a detailed case study, in-depth vocational counseling, and/or psychometric test results. It may also include an analysis of transferable skills and job matching.

Level III: Vocational Evaluation- The comprehensive process that systematically uses either real or simulated work as the focal point for assessment and vocational exploration; the purpose is to assist individuals in vocational development. The vocational

evaluation process incorporates medical, psychological, social, vocational, educational, cultural, and economic data (Dowd, 1993, pp. 17-18).

After examining the potential assessment options, Level I: Screening seemed best suited to determine the potential of individuals with disabilities to perform the Distribution Center occupations. Therefore the Distribution Center vocational assessment was based on background information, interview, and limited psychometric testing.

A CVES seeking CARF accreditation must meet standards that include Section E. Comprehensive Vocational Evaluation Services Standards 1.-11.; Section 2.A. Program/Service Structure, Standards 1.-9.; and 2.D Employment Services Principle Standards 1.-3. (CARF International, 2010).

Section D. Employment Services Principle Standards states

...an organization seeking CARF accreditation in the area of employment services provides individualized services and supports to achieve identified employment outcomes. The array of services and supports may include: Identification of employment opportunities and resources in the local job market.

This standard further states:

The organization maintains its leadership role in the employment sector of the community by designing and continually improving its services based on input from the persons served and from employers in the job market, and managing results of the

organization's outcomes management system (CARF International, 2010, p. 142).

In summary, according to this standard, responding to employers needs, developing employment opportunities, and improving services are vital for CVES accreditation by CARF. Therefore the community rehabilitation program's participation in the development of a Distribution Center vocational assessment is consistent with both expectations and best practices.

Job Analyses of Selected Distribution Center Occupations

Local VR counselors and the community rehabilitation program (CRP) staff including a Certified Vocational Evaluator, job development specialist, and graduate assistant were invited to tour the Distribution Center. During the tour, CRP staff took notes and had questions answered about the occupations to ensure an accurate understanding of the essential functions of the jobs and possible challenges to individuals with disabilities. The Distribution Center identified six occupations in which individuals with disabilities would be given hiring preferences and provided job descriptions for these occupations (Appendix A). Furthermore the Distribution Center made general accommodations by providing a trial work group for newly hired individuals with disabilities. The trial work group provided specialized training and additional time to learn the essential functions of the occupation as well as identify any reasonable accommodations necessary for successful employment.

The first step in the development of the vocational assessment was completing a job analysis for each specific occupation. A job analysis can be defined as "A technical review and evaluation of a position's duties,

responsibilities, and level of work and of the skills, abilities, and knowledge needed to do the work” (Shields, 1994, p. 75). The Revised Handbook for Analyzing Jobs (U.S. Department of Labor, 1991a) provides an explanation of the procedures and techniques used to analyze jobs. The manual’s terminology is consistent with that found in the Dictionary of Occupational Titles, 4th Edition Revised (U.S. Department of Labor, 1991b).

The Occupational Access System (OASYS) was designed for use by professionals who regularly utilize occupational information in the delivery of services to people. The OASYS uses the DOT, 4th Edition Revised as its major data base (OASYS Job Match Version 2.40) The OASYS includes a printable form entitled *Job Analysis* that includes a DOT job description and number; O*NET job description and number; training and education requirements; physical demands of the job; environmental conditions; work situations; work functions; and other requirements.

The OASYS Job Analysis form has the following instructions:

Use this questionnaire to analyze the following job. Add, delete, or modify the description and job requirements to reflect the realities of the job. Generic data taken from the Dictionary of Occupational Titles published by the Department of Labor is shown for some categories. Information you provide on this form will be used to develop a realistic job description. Circle all tasks and job requirements that you feel are essential functions of the job.

The OASYS Job Analysis form was then used to complete a job analysis for each occupation using the Distribution Center job

title with changes made to reflect the essential job functions. However, the Distribution Center job titles were not consistent with either the DOT or O*NET job titles. Therefore, it was necessary to identify the specific DOT job title(s) that best matched the Distribution Center job titles to enable further analysis.

Six DOT occupations that were comparable to the six Distribution Center occupations were identified and these are discussed later in the article. Based on the job analyses and other information obtained during the tour, a booklet was developed: *Job Analyses of Occupations Specifically Identified for Vocational Rehabilitation Customers at the Distribution Center* (Ercoline & Musgrave, 2008).

Identification of O*NET Data Elements

The Occupational Information Network (O*NET) is a computerized database of information on occupations and is designed to replace an earlier occupational system (i.e., the Dictionary of Occupational Titles). The two systems share similarities because the O*NET is built on the foundation of the older DOT. JIST Publishing uses information obtained from the U.S. Department of Labor, the U.S. Census Bureau and other sources to publish the O*NET Dictionary of Occupational Titles, now in its 4th Edition (JIST Publishing, 2007). This publication includes a narrative description of each job plus details on selected data elements. These include 52 Abilities for each occupation with information on how the abilities affect speed of skill acquisition and the level of skill that can be achieved. The 52 Abilities are categorized as follows:

- 21 Cognitive Abilities- these are mental processes that influence the acquisition and application of knowledge in problem solving;

- 10 Psychomotor Abilities- these abilities influence the capacity to manipulate and control objects primarily using fine motor skills;
- 9 Physical Strength Abilities- these abilities influence strength, endurance, flexibility, balance, and coordination; and
- 12 Sensory Abilities- these abilities influence visual, auditory, and speech perception.

The OASYS was also used to print an *O*NET Report* that identifies the Abilities data elements needed to perform the essential functions of each identified occupation. The *O*NET Report* provided a Level and Level Rating, Importance and Importance Rating, and Frequency and Frequency Rating. The Level Rating uses a scale of High, Medium, Low, and Not Relevant. The Importance Rating uses a scale of Very Important, Important, Somewhat Important, and Not Important. The Frequency Rating uses a scale of Never, Less than ½ Time, About ½ Time, Most of the Time, and Continually.

Based on an examination of the ratings, the Level Rating seemed to be the best fit to help determine the specific Abilities data elements to be measured. Those Abilities data elements that were rated at the High and Medium levels would be identified and specific assessment methods would be used to measure performance related to those Abilities data elements. *O*NET Reports* were printed on the six DOT occupations that represented as a whole, all or part of the Distribution Center job descriptions (see [Table 1](#)). A document entitled *Distribution Center Data Elements for All Specific Occupations Rated at the High and Medium Levels* was developed (Appendix B is an example of one occupation).

Identification of Instruments to Measure O*NET Abilities Data Elements

The first step involved identifying specific test instruments that would measure the High and Medium Abilities data elements. A document entitled *Distribution Center Abilities Data Elements and Specific Test Instrument* was developed that lists in alphabetical order both the individual and shared 31 High and Medium Abilities Data Elements of all six occupations and assessment methods to measure those specific Abilities data elements (Appendix C).

Instruments already available at the CVES were used to measure the High and Medium Abilities data elements. There are other instruments commercially available though it was decided the ones at the CVES were acceptable. Following is an explanation of the selected instruments and/or subtests:

- The McCarron Assessment of Neuromuscular Development or MAND (McCarron, 1982) is a measure of Fine and Gross Motor Skills that can be further broken down into Persistent Control, Muscle Power, Kinesthetic Integration, and Bimanual Dexterity. Those selected for the Distribution Center Assessment include:
 - Fine Motor- involves the use of hands and arms in fine motor dexterity;
 - Gross Motor- involves the coordinated movement of the entire body in a standing position, as well as the capacity to integrate kinesthetic cues and demonstrate effective muscle power skills.
 - Bimanual Dexterity- use of both hands to perform fine motor tasks.

Table 1.

*Distribution Center Occupations by DOT and O*Net Title and Number*

DOT and O*Net Title ¹	DOT/O*Net Number
Receiving Clerk	222.387-050/
Shipping, Receiving and Traffic Clerk	43-5071.00
Stock Clerk	222.387-058/
Stock Clerk-Stockroom, Warehouse, or Storage Yard	43-5081.03/
Order Picker	922.687-058
Helpers, Production Worker	51-9198.00
Industrial-Truck Operator	921.683-050/
Industrial-Truck and Tractor Operator	53-7051.00
Material Handler	929.687-030
Laborer and Freight, Stock, and Material Mover, Hand	53-7062.00
Hand Packager	920.587-018
Packer and Packager, Hand	53-7064.00

Note: O*Net titles and numbers are bolded.

- The Valpar MESA Physical Capacity/Mobility Evaluation (VALPAR, 1984) is a physical capacities evaluation with the intent to identify areas of physical function/physical capacity. Specific areas include measures of; Dynamic Strength, and Gait and Muscular Control and both were used for the Distribution Center Assessment.

- The Woodcock-Johnson Tests of Academic Achievement-III (Woodcock, McGrew, & Mather, 2001a) contains 22 tests measuring five curricular areas-reading, mathematics, written language, oral language, and academic knowledge. (Mather & Woodcock, 2001a). Those academic achievement subtests selected for the Distribution Center Assessment include:

- Math Calculation- a test of math achievement measuring the ability to perform mathematical computations.
- Passage Comprehension- requires the person to read a short passage and identify a missing key word that makes sense in the context of the passage.
- Writing Samples- measures skill in writing responses to a variety of demands.

- The Woodcock-Johnson Tests of Cognitive Abilities-III (Woodcock, McGrew, & Mather, 2001b) contains 20 subtests, each measuring a different aspect of cognitive ability (Mather & Woodcock, 2001b). Those cognitive clusters selected for the Distribution Center Assessment include;

- Verbal Ability- a measure of language development that includes the

comprehension of individual words and the comprehension of relationships among words.

○ Auditory Processing- is a broad ability that subsumes most of those abilities referred to as phonological awareness/processing.

○ Thinking Ability- a sampling of the different thinking processes that may be involved when information in short-term memory cannot be processed automatically.

○ Visual-Spatial Thinking- is the ability to perceive, analyze, synthesize, and think with visual patterns, including the ability to store, and recall visual representations.

○ Working Memory- the ability to hold information in immediate awareness while performing a mental operation on the information.

○ Cognitive Efficiency- represents the capacity of the cognitive system to process information automatically.

○ Processing Speed- the ability to perform automatic cognitive tasks, particularly when under pressure to maintain focused attention;

○ Long-Term Retrieval- the ability to store information and fluently retrieve it later in process of thinking.

○ Fluid Reasoning- the broad ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures.

○ Broad Attention- a complex and multifaceted construct by which an individual focuses on certain stimuli for information processing.

● The Vocational Evaluation Interview is a standard interview form used to gain information about personal characteristics, physical and functional limitations, employment needs, and employment history.

Assessment Procedures

A protocol for assessment, *Distribution Center One-day Assessment Test Battery and Procedures*, was developed mainly for graduate assistants who are the primary test administrators. Because it is quite challenging for the test administrators to complete the assessment in one-day (9:00 am to 3:00 PM), so the instructions suggest alternative methods of administration. The following represents the general order of testing and general procedures.

- Vocational Assessment/Evaluation Orientation
- Vocational Assessment/Evaluation Interview
- McCarron Assessment of Neuromuscular Development
- Woodcock-Johnson III Tests of Cognitive Abilities
 - Subtests: 1-7, 9, 12, 14, 15, 16, & 20
- Woodcock-Johnson III Tests of Achievement
 - Subtests: 5, 9, & 11
- MESA Physical Capacities and Mobility Evaluation

General Procedures and Need for Examiner Flexibility

✓ Provide one-on-one shortened version of orientation. Pay attention and do not give additional subtests.

✓ The client's processing speed is an uncertain variable that can significantly lengthen testing but must be given consideration. Throughout the day keep the Vocational Evaluator informed on how things are proceeding in case certain test adjustments need to be made.

✓ It will likely be necessary to reduce the lunch time from one-hour to one-half hour and the WJ-III Achievement subtest #5 Math

Calculation can also be given over lunch time if necessary.

✓ Depending on the situation the MESA is the one test that can be eliminated if necessary, or at minimum only administer the Dynamic Strength Exercises 1-5.

✓ If we are having trouble completing the assessment and the client can stay beyond 3:00, interchange the Vocational Evaluation Interview and MESA and the Vocational Services Manager can complete the Vocational Evaluation Interview.

Interpretation of Distribution Center Assessment Results

A form, *Distribution Center Comparisons of Tested Abilities with the Essential Job Functions of Specific Occupations* was used to list individual test results for each job (Appendix D is an example of one occupation).

A booklet, *One-Day Brief Vocational Assessment for Occupations Specifically Identified for Vocational Rehabilitation Customers at the Distribution Center* (Musgrave, 2008), was developed that includes an assessment overview, procedures, O*NET Reports, sample reports, and forms. The following is an excerpt from that booklet:

A one-day brief vocational assessment is completed to respond to a referral requesting an assessment of an individual's ability to perform occupations found at the Distribution Center. The purpose of the assessment is to help determine individual abilities related to Abilities data elements found to represent specific occupations at the Distribution Center, but not to determine who is to be hired. Two samples of Distribution Center

vocational assessment reports are provided that reflects the style of reporting and represent two diverse cases, one suggesting abilities to perform the Abilities data elements and the other not.

After having completed the assessment battery, individual standard score results can be written on the *Distribution Center Comparisons of Tested Abilities with the Essential Job Functions of Specific Occupations* form. In some situations more than one measure will represent an Abilities data element and if so an average can be used. If interview results are used, then rate according to professional judgment using the following standard score scale. A standard score is "a general term referring to any of a variety of 'transformed scores' in terms of which raw scores may be expressed for reasons of convenience, comparability, and ease of interpretation" (Dowd, 1993, p. 26).

As a whole any standard score at or above the Low Average range suggests an ability to perform the Abilities data element. For those at the Borderline level **or** lower, specific accommodations can at times be considered. A failure to meet the criteria for any of the Abilities data elements should **not presume an inability** to perform the occupation and professional judgment is needed to both compare and contrast abilities. As a rule of thumb we are most interested in including rather than excluding an individual from possible occupational options, but we do though need to provide an honest,

Table 2.

Standard Score Range by Level

Level	Standard Score Range
Very Superior	130+
Superior	120-129
Above Average	110-119
Average	90-109
Low Average	85-89
Borderline	70-84
Extremely Low	69-

objective professional opinion.

Based on the final results a vocational assessment report was completed using a format of referral information cover page, interview results, test results, and recommendations. The specific recommendations included none, any, or all of the Distribution Center occupations for the referred client. (See Appendix E).

Conclusion

The Distribution Center One-Day Assessment was considered successful for several reasons. First is based on number of referrals, vocational rehabilitation counselors’ positive comments, and number of individuals with disabilities employed at the Distribution Center. The second reason is the 2009 CARF accreditation for Comprehensive Vocational Evaluation Services. The CARF summarized results include two specific statements; “The (name omitted) Distribution Center assessment is recognized as an excellent example of community collaboration. The comprehensive one-day vocational assessment measures cognitive, motor, and functional capacities needed to perform occupations” and demonstrating exemplary conformance to standards as the “(name

omitted) vocational evaluation services consists of an exemplary physical facility, state-of-the-art testing products and technologies, and highly qualified and competent staff members who go above and beyond in the provision of this comprehensive service component”.

The Distribution Center continues to strive to employ individuals with disabilities as in the summer of 2010; VR counselors

and the CRP Certified Vocational Evaluator were again invited to tour and observe the new e-commerce production line that is responsible for processing and distributing Internet sales. The current Distribution Assessment appears capable of assessing individuals potential for this new job as well as those previously identified.

In addition, the Distribution Center’s corporate headquarters has increased the goal for 2011 to employ 20% of their workforce with individuals with disabilities. The CRP continues to assist the Distribution Center’s expanded placement efforts through additional job development staff and resources that were obtained through VR services administered American Recovery and Reinvestment Act (ARRA) stimulus funding.

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Biographical Sketch

Jack R. Musgrave, M.S., CRC, CVE, LCPC, is the Interim Director of the Evaluation and Developmental Center, Rehabilitation Institute, Southern Illinois University Carbondale from which he also earned his master's degree in Rehabilitation Administration and Services. He has over 25 years' experience as a manager and vocational evaluator of a CARF accredited exemplary comprehensive vocational evaluation program. He is an experienced vocational expert and international vocational rehabilitation consultant.

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Book Review

Assessment in counseling a guide to the use of psychological assessment procedures (4th ed.).

Hood, A. B., & Johnson, R. W. (2007).

Alexandria, VA: American Counseling Association. ISBN-10 1556201877.

Available from the ACA <http://www.counseling.org/Publications/> : \$46.95 (member) or \$65.95 (nonmember)

Introduction

The application of assessments in counseling is the focus of the Hood and Johnson text and many of the topics covered have direct application for vocational evaluators. Using a practice based overview; the authors acquaint readers with assessment procedures that contain specific relevance for vocational evaluators or career assessment professionals. The text brings into focus the evaluative nature and function of various types of assessment. Building on this understanding, the authors examine fundamental statistical concepts used in the development and interpretation of tests and test scores. Additionally, Hood and Johnson support the efficacy of assessments in: promoting individual awareness and clinical insight; establishing effective program planning and evaluation; and implementing evidenced based practices that strengthen professional viability and credibility. The authors contend that in theory and in practice, comprehensive and collaborative application of assessment information contributes to efficient and effective client-centered services, which the vocational evaluator can apply when assessing a client's vocational needs.

Written in a manner that supports the intention of practicality and functionality in the utilization and incorporation of assessment, the book's layout is easy to follow. For readers who are familiar with the evaluation process, the layout makes it easy to find specific information. For students or

those new to evaluation, the book is best read in the order presented to develop a foundation for understanding of the concepts discussed. The text addresses topics such as: the effective utilization of assessment procedures, measurement concepts and elementary statistical procedures in test interpretation, types of assessments, testing considerations for minorities and special populations, guidelines for communicating test results, and ethical considerations in testing. The authors provide a brief review of 133 tests as examples related to the following chapters: intelligence; academic aptitude and achievement; career choice; work and personal values; interests; personality inventories; projective techniques; interpersonal relationships; and mental health. The test reviews contain helpful information on purpose, development, standardization, scoring, strengths, and limitations. The reader who wants detailed information will have to use another source.

A variety of themes are interwoven throughout the text. First, the assessment process, if conducted in a supportive environment, can be therapeutic. Second, assessments, whether formal or informal, are an inherent part of the assessment process. Third, those who administer and interpret assessment instruments have a professional and ethical responsibility to understand the types of assessments utilized and what the data suggests. Fourth, effectiveness in

testing relies on the fit of the test selection, appropriate administration, and the meaningful interpretation of the results. Fifth, utilization of a multi-method, multi-factor approach is preferred when capturing the client's strengths, challenges, and needs.

Noted Strengths and Areas for Discussion

The Hood and Johnson text is succinctly and clearly written. There were several noted strengths. First, guided themes provide a practical framework for understanding the who (client strengths, challenges, and expectations), what (client concerns), when (readiness for change/motivation), where (assessment environment), why (assessment/test selection), and how (methods of administration and interpretation) elements of assessment procedures. Second, the inclusive nature of the text allows for flexible applications in a variety of settings. Third, illustrated examples solidify the concepts discussed. Fourth, the text highlights the importance of the therapeutic alliance and the collaborative partnership between the evaluator and the client. Fifth, the authors utilize the theoretical framework of the problem-solution model to demonstrate the role of assessment in: understanding the nature and scope of the client's concerns, generating alternative solutions to address the client's concerns, evaluating and choosing effective interventions, putting solutions into practice, and, following up to ensure that the problem is resolved. Sixth, the language of the text is easily understood and adapted to address the specific needs of the reader.

A few areas warrant further discussion. First, although noted as strength in providing structure to the assessment process, the problem solution model can minimize complex therapeutic issues and

oversimplify solutions. Similarly, the problem-solution model assesses the individual in terms of deficits rather than through the lens of intrinsic strengths. Second, the text addresses the issue of adapting assessment for minority and special populations in one chapter. This includes a discussion of cultural bias and accommodations for individuals with disabilities (i.e., visual, hearing, cognitive) and older adults. Considering the scope of practice of vocational evaluators this is a serious limitation. The text provides useful information about testing per se but not how tests can be used with or modified for populations typically seen in practice.

The strength of this book is the useful information for practicing vocational evaluators as well as for those training vocational evaluators. The two areas of concern are the lack of information about accommodations and the writers make generalizations without supporting evidence. For a practicing vocational evaluator, this book would serve as a reference and for trainers this could serve as a supplementary text.

Biographical Sketch

Karen Ogden-Weiss, MS, LPC, LCAS, CCS, CRC has been working in the mental health/substance abuse field for 23+ years. Presently, Ms. Ogden is in private practice and serves as a consultant and trainer for a variety of agencies including Duke University Medical Center and the Department of Psychiatry at the University of North Carolina, Chapel Hill. Karen is an advanced PhD student in Rehabilitation Counseling and Administration at East Carolina University, Department of Rehabilitation Studies.

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PAPERS AND ABSTRACTS

14th National Forum on Issues in Vocational Assessment
Finding Your Career Path through the Life Cycle
Oklahoma City, OK
April 8-11, 2010

The conference would not have happened without the blood, sweat, and tears of joy from the 2010 VECAP National Issues Forum Committee:

Dr. Joseph Ashley, *Co-Chair, VA Division of Rehabilitative Services*

Mr. Mike Ahlers, *VECAP Home Office, Kansas Rehabilitation Services*

Ms. Joan Kester, *Co-Chair, The George Washington University*

Dr. Ronald Spitznagel, *Private Consultant*

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Mr. Charles Watt, Jr., *OK Dept. of Rehabilitation Services*

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Development of the Cannon Picture Interest Inventory

Bonnie Cannon, Ph.D., CRC, NCC, CVE
Troy University

Abstract

The presentation discusses the initial development of a prototype reading free interest inventory titled the Cannon Picture Interest Inventory (CPII). The CPII is based in Dr. John Holland's theory of career development, which is based on the fit of an individual's personality to the work environment. Dr. Holland has developed several instruments to test these personality types, most notably the Holland Self Directed Search (SDS); however, all his tests require a subject to read at a 4th grade or higher reading level. This researcher has attempted to solve this deficiency by developing a reading free interest inventory: the CPII.

Introduction

The Cannon Picture Interest Inventory (CPII) is a vocational test designed to evaluate non-reading individuals in order to determine their career options. This article will explain the research methods utilized in the development of the CPII, focusing on the purpose of the study, development of the test, test administration process, and data collection methods.

John Holland's theory is an operational theory of the career development process based on an individual's interaction with his/her work setting. The impact of this theory is vital to the practice of career counseling; for years it has provided a way to determine a person's fit with his/her environment (Weinrach, 1996). Holland's theory is uniquely defined, being both specific and broad in scope. It is based upon a hexagon typology that is easy to understand and allows for utilization across cultures and the life span (Holland, 1997). The occupational code is simple to understand and is used to describe an individual's personality characteristics as they relate to the work environment. Holland's philosophy is that individuals of

similar personality types enjoy the same or similar types of work. The assumption is that an individual who is correctly matched to his/her work environment is more likely to be productive and successful, and to feel satisfied with his/her occupational choice (Rayman & Atanasoff, 1999). The code allows for a basic framework within the workforce that enables individuals to "fit" employment milieus (Shivy, Phillips, & Koehly, 1996).

Each of the personality types is explained by a three-letter code used to predict vocational choice. Each three-letter code is a combination of an individual's top three personality types, and produces an individual's specific vocational profile. Each profile falls into one of six personality types: Realistic, Investigative, Artistic, Social, Enterprising and Conventional (see [Figure 1](#); Holland, Gottfredson, & Nafziger, 1975).

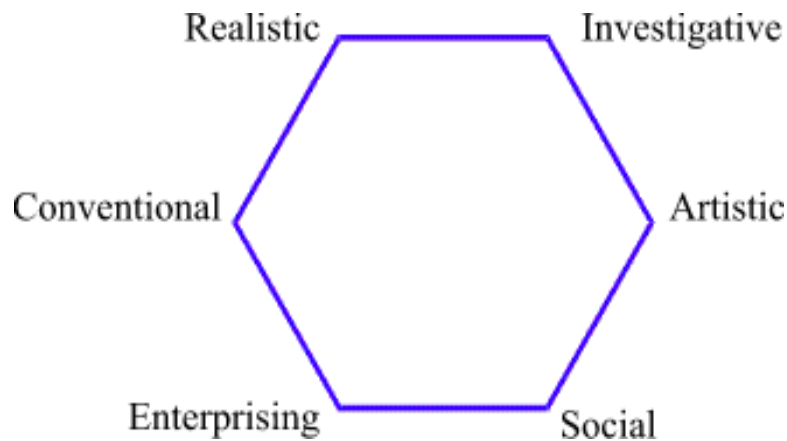


Figure 1. Holland's Hexagon

John Holland's theory is based on the following basic precepts:

- 1) An occupational selection can mirror an individual's personality.
- 2) An individual's view of his abilities, aptitudes and career goals defines their vocational interest. Thus, an interest inventory can also be a personality inventory.
- 3) An individual's view of stereotypes imparts important psychological meaning.
- 4) The existence of a six part code can be used in the evaluation; however, each individual is a combination of types, not a pure type.
- 5) Six distinct working environments exist, with each individual dominated by a specific personality type. Individuals will naturally seek jobs that compliment their personalities, thus maximizing their individual strengths and minimizing their weaknesses.
- 6) An individual's career-related behaviors, such as success, satisfaction, and job stability, can be reasonably predicted by examining the match with

his environment (Holland, 1985, pp. 3–5).

The Cannon Picture Interest Inventory is a vocational interest inventory consisting of pictures of individuals performing various tasks. Two forms were developed—Forms A and B. This development consisted of a four-step process. Construct validity was established through the following steps. Pictures were taken of tasks that are mentioned in the Activities Section of both the Holland Self Directed Search Form E-4 and the Strong Interest Inventory. Certified vocational evaluators (CVEs) served as expert judges in the selection of pictures used for test items. The three experts familiar with the John Holland Theory of Career Development and actively conduct vocational evaluations.

Identical rating forms were mailed to each expert, along with the pictures, and they were asked to respond by identifying the occupational code, i.e., RESIAC of each picture, and rating the picture on a five-point scale for over-all clarity, with one being the highest rating. Two pilot ratings were conducted. Initial picture ratings were conducted on 509 pictures of individuals

performing various tasks. Due to a lack of representation in the Investigative (I) code, Enterprising (E) code and Social (S) portion of the code, an additional 161 pictures were taken with emphasis on I, E, and S occupations. The expert raters re-evaluated all pictures receiving a quality rating of 9 or higher on the initial rating. A total of 36 different pictures were selected for both Form A and Form B. Each picture had congruence in code rating of 2 out of 3 and a picture quality rating of 12 or greater. Congruence in code means that at least two out of three evaluators agreed on the letter code the picture represents. Each picture selected was then presented five random times in each form. As a result, two test booklets were developed—Form A and Form B. Each booklet contains 60 pages with three pictures randomly assigned to each page. On each page the examinees select the one picture that is of the most interest to him/her.

Methods

Subjects

The population for this study is a convenience sample of individuals with various disabilities who have been referred to the following community rehabilitation centers for vocational assessment/testing: (a) Goodwill Industries Suncoast, St Petersburg Florida; (b) Wiregrass Rehabilitation Center, Dothan, Alabama; (c) Easter Seals Central Alabama, Montgomery, Alabama; (d) Easter Seals of Birmingham, Birmingham, Alabama; and (e) Lakeshore Rehabilitation Center, Birmingham, Alabama. Community rehabilitation centers provide various services to individuals with disabilities, one of which is assessment. A community rehabilitation center must be accredited by CARF (the Commission on Accreditation of Rehabilitation Facilities) in order to provide services. Each of the above facilities is

CARF accredited. This accreditation requires that personnel and facility adhere to practices that are based on specific professional standards.

Reliability and Validity

The purpose of this study is to determine whether the non-reading interest inventory, Cannon Picture Interest Inventory (CPII) has reliability (Group I) and validity (Group II). Group I will be used to determine reliability. Group I consists of individuals who read at less than the fourth grade. This group will take both Form A and Form B of the CPPI. Group II will be used to determine validity. Group II consists of individuals who read at the fourth grade level of higher. This group will take either form A or form B of the CPII as well as the Holland Self Directed Search.

The principal investigator will analyze the data to determine the reliability and validity of the CPII. Reliability will be determined by the alternate form method. Test results from Form A will be compared to test results from Form B. The data will be analyzed utilizing the Pearson product moment correlation coefficient (r). Validity will be measured by the administration of the CPII (either Form A or Form B) and a similar measure, the Holland Self Directed Search. Test results will be correlated utilizing the Pearson product moment correlation coefficient (r). SPSS will be utilized to analyze the data.

Vocational/career interest testing is recognized as being central to the vocational rehabilitation and job placement process for individuals with disabilities (Power, 2006). Consequently, rehabilitation counselors must have access to interest tests that are reliable and valid, thereby yielding useable results for all consumers, including non-readers. The Holland theory is based on the fact that someone is more likely to choose a satisfying job if s/he chooses one that fits his/her personality type (Holland, 1997).

The CPII will allow this theory to be utilized by counselors who, when assisting non-reading individuals, as they help clients determine their career options.

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The Case for Using Two Career Interest Surveys: Research and Reasoning

Samuel Castiglione, D. Ed.
Workforce & Technology Center
Division Of Rehabilitation Services
Baltimore, MD

Abstract

Interest inventories are one of the most widely used tools in career assessment and career development in the workforce, educational and rehabilitation communities. They may also be widely mis-used because practitioners neglect fundamental assessment characteristics of these tools and because of varying responsiveness between respondents and different inventories. This article makes the case (based on the author's observations, collected evidence, and reviewed literature) that best practice in career assessment calls for using at least two inventories, preferably of different response types, with each consumer; achieving a composite career code as the most valid summary, and using the information to discern a level of career development in the consumer that would guide the kinds of career counseling applicable for that consumer.

Introduction

The use of some type of interest inventory to help students, clients, or consumers to detect their truest pattern of work interests has been around a long time. The author recalls as a young counseling trainee nearly forty years ago having to administer Kuder Preference Records and Edwards Personal Preference Schedules to a variety of willing subjects, and then having to "validate" the results with them in a non-directive counseling interview, without ever giving them test scores, although much counselor time had gone into analyzing those scores for validity and real-life meaning. Since then, the variety of interest inventories has grown exponentially and has ranged widely in levels of formality, styles of presentation and response format, use of computers and Internet applications, and occupational clusters forming the background organization to the interest elements.

This growth and diversity in interest inventories poses some challenges for

vocational evaluation that have been apparently only lightly tripped over, although there have been active discussions (via journal articles) in career development, assessment psychology and workforce development circles. It may be time for a re-statement of best practices in this area for vocational evaluation, even in light of the fact that recommended practice in vocational evaluation calls for triangulation of stated, manifest and tested interests.

Outline

This presentation will attempt to convey the following points:

1. Situate Interest Surveys and Inventories as a form of Personality description. This must include elements such as: Stated, Manifest, and Tested Interests; Informal to Formal Range of tools; Empirical basis to Simple Sum of Interests (raw scores); and Normative to Relative
2. Examine a range of observations, research and examples: Self-Directed Search (SDS), Harrington-O'Shea Career Decision-

Making® System (CDM), Wide Range Interest and Occupation (WRIOT) Test I and II, COPS Interest Inventory, VOCTIES Videos, Interest Profiler, Valpar Pro3000, Work Preferences Match, etc.

3. Consider how to interpret and validate the meaningfulness of interest survey results? How scores count and should be reported; How a person reacts to his/her scores; How people respond differently to different surveys – written, pictures, photos, videos, multimedia. Response style, color preferences, sex differences. Why does a student have different results on two different inventories? Which one is right? What if a student says s/he wants one career but his/her interest survey says something else? What if the student's parent has a third choice?

4. What is a Composite Career Code and why didn't my parents have one? How do I connect career survey results to the occupational world? (OK, just how many career clusters are there for real – six, ten, twelve, fourteen?)

5. An example of what happens when points 1 thru 3 are ignored.

Situate Interest Surveys & Inventories as a Form of Personality Description

Since vocational evaluation covers a variety of domains, it is important to recognize which one interests belong to. Interest “testing” is most properly a subset of Personality “testing.” Interests, values and temperaments are inter-related components of Personality relevant to employment. Because of this, some research shows that non-obvious aspects of personality can be correlated. Thus, Dewey Color preference tests can predict Strong Interest Inventory Basic Interest Scales. (Lange 2007). Although many users casually refer to the Self Directed Search as an interest test, Dr. Holland's theory underlying the inventory is that the six code

areas represent types of “work personalities” that match “work environments” (Holland, 1992). As such, Interest Assessment always raises the same issues of the stability of *Traits of the Person* versus influences of the *Environment*. It raises the concerns about Person X Environment Interaction, including the “testing” environment. Results should always be validated against the person.

Vocational Evaluation's recommended approach to validation is to account for Stated, Manifest, and Tested interests – a method of triangulation. However, to the extent that well-developed and widely known interest inventories may be used, evaluators may often give more weight to the test results.

One of the important benefits of interest tests is the discovery of Unexplored interests on the part of the client and the clarification of vocational interest patterns (in contrast to specific interest activities). However, as will be seen later, interest tests may also mask possible interests, leading some clients to neglect looking at possible development of productive careers. The most well-known example is how some tests may give false negative indications of women's potential for non-traditional career roles.

To accomplish their task of discerning the interest aspects of personality, tests cover a range of Informal to Formal assessment styles: *Informal* examples include a Card Sort (e.g. 4 cards: People, Data, Information, Things); People Sort; Work Preference Match, and VocTies. These do not provide “scores” as much as a chance to identify or to rank a variety of interests. *Formal* examples include those such as the Strong Interest Inventory, WRIOT-I, and the Myer-Briggs Type Indicator (MBTI). The MBTI is another example of a dedicated personality test whose results have been plumbed to derive career information.

The presentation of the inventories varies widely at this point: Cards, Written, Written with narration, Line Drawings, Photos, Videos, Activities, Multimedia (combining pictures, writing and narration). Likewise, the response to the presentation also varies: Rating, Ranking, Forced Choices, Multiple Choices.

Just as important, but more often neglected, is the way the responses are scored and analyzed. These usually involve either an Empirical-basis (generally statistical and normative), which might include tests like the Strong-Campbell Interest Inventory, the Strong Vocational Interest Blank, the WRIOT (first edition), or the MBTI. The scores leading to interest scales often combine unlikely combinations of both likes and dislikes which have been found to exist among satisfied members of a given career field. They represent the adage: "Birds of a feather flock together." OR, the scored responses are Raw Scores, simple sums of interest tallied in a given area, that often represent high and low interests relative to each other. Many interest inventories fall into this category: the SDS, the Career Decision Making System (CDM), the WRIOT-II, the O*NET Interest Profiler, Envision (your career), and others.

Examine a Range of Prominent Examples, Observations and Research

It is useful to look at a range of the prominent examples of interest "tests" that evaluators keep in their toolkits and to consider some of the aspects of what people think they are getting from them. The simplest approach is the Card Sort, with four cards (People, Data, Information and Things, including plants & animals), which clients can simply sort and rank order, for discussion purposes. Interestingly, there are some other simple exploration tools, such as the Work Preference Match, which basically

ask some leading questions that are followed by efforts at doing some career research.

A second category involves Written materials, that is, a systematic sampling of careers is provided by a written job title or work activity, that a client reads and rates: Interest Profiler (O*NET), Self Directed Search (SDS), Career Decision Making System (CDM), CareerScope (computer), The Career Game, Sigi-Plus, Career Explorer, Career Exploration Inventory, Strong Interest Inventory, Myers-Briggs Type Inventory (MBTI), Career Key (online) are all examples.

For persons with disabilities, these have sometimes proved problematic if access to paper/pencil was required, or if client reading levels were very low. One of the ways this has been accommodated, and indeed, has extended to a more universal design for assessment, has been to computerize them. Computer access, with interface adaptations, is sometimes easier for client response, and often screen readers can assist the item examination process. But, note that the American Psychological Association published guidelines for testing and computers (1986) discussing the need for validation of computerized forms of written tests; Staples and Luzzo (1999) discuss a range of career surveys, including the SDS and CDM that have validation results, in setting up their own study of the multimedia version of UNIACT Discover.

A third category is Picture based; usually this has involved initially black & white, later colored, line drawings or sketches of people at work. The first prominent example was the Geist Picture Inventory, but later WRIOT I and II, Reading-Free Interest Inventory 1 and 2, COPS-PIC, Picture Interest Career Survey (PICS) have all come into play. As digital technology improved, photos began to take the place of sketches. Pictures have advantages in reducing reading load, and making a career seem

more enlivened. They also carry disadvantages in becoming outdated, and also because they depict specific persons, may carry gender, racial, cultural or age biases implicitly within the scenes.

Somewhat newer technology has made possible Video Based interest inventories that are simultaneously career exploration tools— VocTIES covers sixteen (limited) career areas and asks viewers to rate their interest level, whereas Enter Here Series is simply a set of 8 to 12 minute videos that attempt to convey career information; their interest test value comes from which videos the client chooses to view; the (now-defunct) CareerVoyages.gov similarly provided “hot” short video clips for exploration; video clips are more widely downloaded from a variety of sources now.

The more recent and complex true inventory tools are Multi-Media (photos, written items, and narration). Valpar Pro3000 and Aviator use sharp photos, written occupational descriptions and audio narrative in combination, which is useful with a variety of persons with or without disabilities; DISCOVER by UNIACT combines narration with video clips. ENVISION on the other hand, attempts to be non-language bound by using no spoken or written language, only video clips but requires an explicit scoring system (raw score) to provide a Holland-code.

This review of tools is merely illustrative, and neither exhaustive nor prescriptive with regard to the specific tools listed.

Starting Point

The starting point for this examination of interest inventories began quite a number of years ago with this evaluator’s informal observations about differences in interest inventory results. It was noted that even with clients who expressed strong stated interests that the inventories painted another

picture. At first disability considerations indicated using, for example, a low reading inventory with a more traditional written survey. Often enough to be disconcerting, results were discrepant, even contradictory, and required considerable discussion to establish a direction to plot further vocational evaluation plans. Eventually, as a means of laying groundwork for vocational evaluation outcome research, the evaluator began to collect systematic data. [Table 1](#) represents four years of data (2003, 2006-08), for all reports with interest inventory information (2004 and 2005 are still being tabulated but appear to be running in the same directions). Because of the different purposes for evaluation, some cases simply did not require interest information and thus were not included. There were 300 total cases, 95 with 2 inventories and 205 comparing stated to tested.

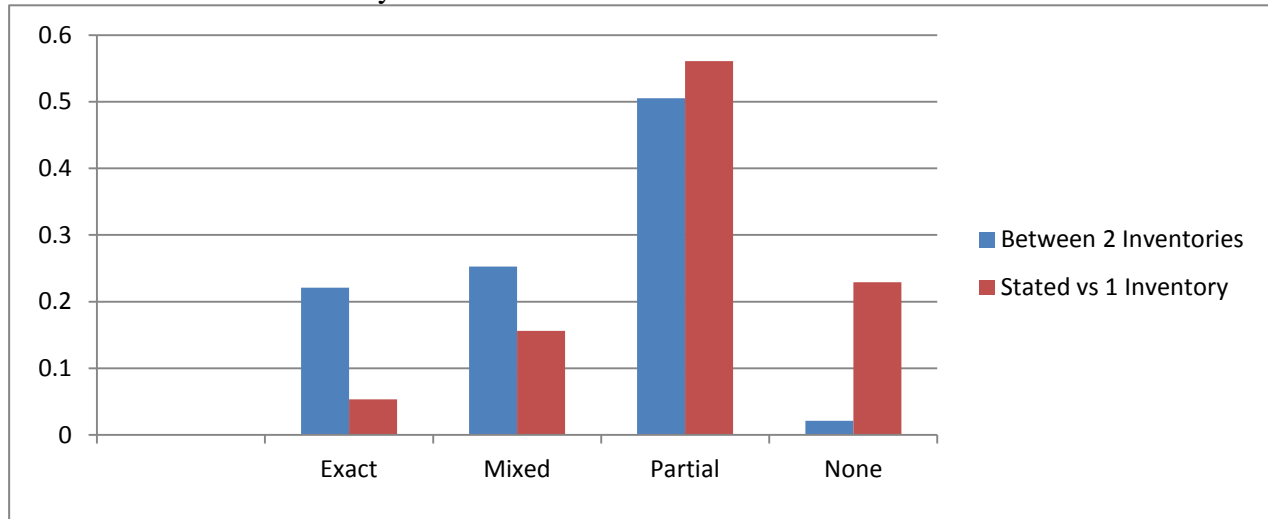
Because three-letter Holland codes are widely used for career exploration, because they have been used to examine vocational evaluation outcome research and rehabilitation outcome research, they are used here, and will later be used in research linking evaluation recommendations to Individualized Plan for Employment (IPE) goals to case closure outcomes.

No statistical analysis was performed. One major reason for that is the striking result that in over 50% of cases, two inventories provided only partial or no congruence with each other. The implication of this is if only one inventory had been used for exploration and career planning, it may or may not have sent a client down a misguided path. At least the benefit of incongruent results is that the parties recognized that they needed to pay more attention to factors like the client’s true interests, or lack of sufficient career interest development, or needs for more career exposure.

Table 1.

Collected Interest Inventory Observations

Congruence	Exact	Mixed	Partial	None
Between 2 Inventories	22%	25%	51%	2%
Stated vs 1 Inventory	5%	16%	56%	23%



Definitions:

Exact – Exact combination of the 3-letter Holland Code

Mixed – Same 3 letters, in different combination.

Partial – Same first letter or total of 2 letters the same.

None – Only 1 shared letter, or none

In following up on this discrepancy, *three initial sources of variation* seemed likely according to research found. **One:** Responses to Pictorial Items may be, and probably are, different from Response to Written Items. At least one research article supported this, although it was one of the first this evaluator found, and the reference for that article has not been relocated. On the other hand, many inventory developers have data to show comparable validity between written and computerized formats. (e.g., Kapes, 1992).

A second source: Differences in level of career development with a given client led to unstable responses (Athanasou, 2007);

consequently the person is not consistent in responding to interest items, only a few (empirically-based, normative) inventories provide item consistency scales.

A third possible source: Differences in the occupational structure of inventories led to variable responses and depiction of a person's interest structure. The items contained in any given inventory are not an exhaustive representation of all occupations or activities within a career field; they represent only a sampling.

Additional factors discovered within this exploration of inventories include Gender differences, Response style factors, and Trait factors. (Savickas, 2006; Prediger,

1997;Gati, 1991; Denmark, 2008). Gender differences can be significant. Some inventories attempt to compensate by providing “neutral” activity statements, when written. Some only try to show varieties of males and females, some have males & females depicted in each activity. A problem with Raw Score inventories such as SDS, CDM, and similarly scored inventories is that the results may not sufficiently engage women to consider non-traditional roles; normatively balanced scores can often compensate. Sometimes separate gender norms are better.

Response style, the tendency to over-endorse (positive) or over-reject (negative) either written or pictured interest items, is a critical and under-interpreted factor. Response style overrides a considered response to the items, and may mask the true interest pattern for the person. Figure 1¹ shows a positive response pattern for a client on both inventories used. Figures 2 and 3 illustrate contrasting negative and positive response patterns on each of the CDM and the Valpar Pro-3000. Savickas and colleagues’ (2006) study of five different RIASEC (Holland code) type inventories found that Response Style and Gender made up significant third-level factors in the analysis of results ([figure 4](#)).

How should we interpret and validate the meaningfulness of interest survey results?

Given some of these findings and research considerations, how should evaluators respond? First, it is this evaluator’s opinion that for assessment (somewhat in contrast to exploration and development activities), tested interests should always involve two interest inventories, of two different modalities (e.g.,

one pictorial, one written) to be coordinated with stated and manifest interests.

For another thing, when scores are obtained, they should be counted/represented and reported. Evaluators should take care to observe whether scores may present a **Relative** value or a **Significance** value, and to what extent they may have been influenced by a positive or negative response style.

Scores should be compared to each other, and to stated and manifest interests, and to other personality factors: Discuss and consider gender role influences; How does the person react to his/her scores? How did the person feel s/he reacted to different types of inventories? What if a student says s/he wants one career but the interest survey says something else? What if the parents have a third choice? What sources did the person think contributed to his/her attitudes and feelings about the different career choices? Incongruence of results indicates a need for further discussion and exploration, and career planning steps should recommend heuristic but active involvement in career exploration activities to plant a firmer direction. On the other hand, very congruent results allow for investment in more definitive career plans.

Results should be interpreted also in terms of career development levels. During the 1997 Forum, a national interdisciplinary work group argued that best practices called for evaluators to report a career development level as a part of their findings. Inexplicably, that recommendation dropped from sight. One simple suggestion here is to follow a simple three-level functional approach, rather than to adopt a given theorist’s system. One, is the Underdeveloped level, which might manifest in one of three forms:

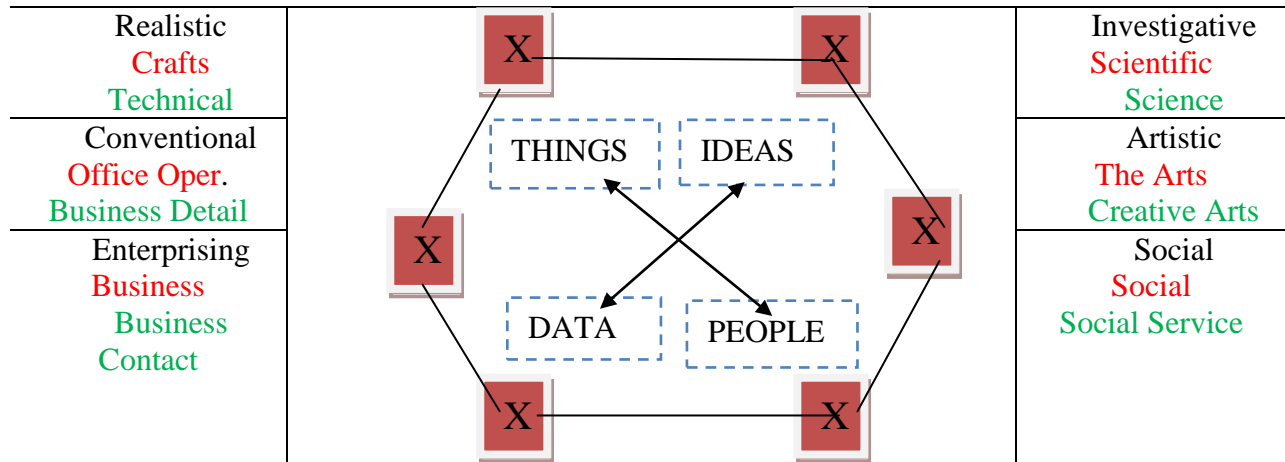
- Lack of Exposure (the undecided)
- Restricted attitude (Negative style)
- Uncritical (Positive style)

¹ Figures 1-3 are located at the end of the article.

Second would be Exploring (which indicates more active involvement than the

Underdeveloped), and third would be the Well-developed (or Crystallized).

Figure 4.
Holland Codes and Dimensions



Black - Holland types

Red – CDM scales (Career Decision Making System)

Green – ACT Interest Inventory scales

The six types are the initial factors.

The Data-Ideas, People-Things polarities are the next level dimensions.

The third level factor is Response style, and sometimes Gender.

What is a Composite Career Code and why didn't my parents have one?

The concept of the career code is derived from Dr. John Holland. It indicates that a person may be a blend of their strongest personality features and that they may match with work environments that also blend matching demand features. In strict terms, the SDS (Self Directed Search) is not an interest test; it has an interest survey within it but it is a personality match. But the coding system is useful. Note similar characteristics with instruments like the MBTI.

The CDM, WRIOT-2, O*NET Profiler and others yield Holland codes. The Holland codes are proving useful in Voc Rehab and in Vocational Evaluation outcome research. But the effect of using

two inventories will often be to discover two incongruent or only partially congruent codes. When using two interest instruments, which one is right? IT DEPENDS! Maybe neither. This is when a real look at the individual person is most important, and blending all sources should lead to a Composite Career Code.

A Composite Career Code is the most complete validation of the person's prominent interest patterns, based on all sources. It should help indicate:

- The person's career development level
- Prominent vocational directions to explore
- Possible leisure directions to explore.

How do I connect career survey results to the occupational world?

OK – just how many career clusters are there for real – six, ten, twelve, fourteen, sixteen? The question arises because various instruments connect their results to diverse ways of slicing up the work world (see [Table 2](#)). It is not always easy to connect the results to RIASEC codes. For example some Protective occupations which involve lots of outdoor work and handling

things may be better associated with Realistic interests, whereas other Protective occupations such as security and investigative work may be associated with Social interests. It may take some digging and discernment to uncover the true nature of a person’s interests (which might include potential interests they have not explored tangibly yet).

Table 2.

Comparison of Career Clusters

Holland/ONET CDM ACT	WRIOT2	VOCTIES	Valpar(oldGOE)	CEI	COPS	ONET	RevGOE	Maryland Career Clusters
Realistic Crafts Technical	Build/Repair Factory Ass HeavyEqpt Plants&Ani. Cleaning	AutoTech Constructn Mech/Elect Metals Agriculture	Plants&Animals Mechanical Industrial	Mechan AnimCa Plants	Skilled Tech Consumer Outdoor ProfTech	Agric.,Nat R Arch&Const Manufact. Transport	Plants&Anim Mechanics, Const,Mining Transport Indust.Produtn.	4.Construction & Develpmt 5.Environmental, Agric. & Natural Resources syst. 9.Manuf, Engineering & Technology 10. Transportation
Investigative Scientific Science	Science	Drafting	Scientific	Phys Sci LifeSci	ProfScien. Skilled Sci.	Health Scien. STEM	Scien, Math, Eng. Scien,Math,Eng	6.Health & BioSci
Artistic The Arts CreativeArts	Art Music Drama	Graphic Comm	Artistic Phys Perfor	Artistic Literary PhysPerf	ProfArts Skilled Arts	Arts, AV,Comm	Arts, Enter,Media	1.Arts, Media & Communication
Social Social SocialService	PersonalServ FoodServ ProtectiveSer SocialServ HealthCare	Cosmetolgy Family&Consu Foods HealthSci Hospity&Tour PublicSafety	Protective Accommodtg Humanitarian	SocServ PersServ Protectng	ProfServ SkilledServ Communic	Hospitality& Tourism Law&safety Educ&Traing HumanServ	Rec, Travel, PersServ Law & Safety Educ&Soc Serv Med&HealthServ	3. ConsumerSrcv Hospitaty, tourism 7. HumResourServ
Enterprising Business BusinessContact	Sales	Business Marketing	Selling Leading/ Influencing	Leading. Persuad/ Influen.	Prof.Busns. Skilled Bus.	Bus,Mgmt,Adm Finance Gov/Publ Admin. InformTech Market/Sales/Serv	Sales&Marketing General Mgmt	2. Bus. Mgmt & Finance 8. InformTechnol
Conventional OfficeOps.	Clerical/Off.		Bus.Detail	Clerical Financ. detail	SkilledBus. Clerical		Bus.Detail	

Note. adapted from “Castiglione, S. (2010)

It may appear that this presentation has focused on scores, technical characteristics of interest inventories, and so on. That would be missing the point. Evaluators’

understanding of the various interest tools they use is a backdrop and a context to help them best understand the human person who is considering employment and a career.

The goal is truth and authentic understanding.

The neglect of this depth of understanding results in the risk of misused resources and energy, as well as personal frustration. In some quarters, the philosophy has been adopted that when people say they want to work, they are rapidly asked what they want to do, and a rapidly shunted into job placements. Evidence has mounted that this results in a trial and error approach to effective career placement. The continual reshuffling into various entry level jobs then obstructs a progression of career development. The most effective use and understanding of interest inventory tools in conjunction with other tools for constructing a client's world view regarding the work world is the more efficient and humane way to go.

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ml&identifier=ADA060089.

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Client 1: A.M.M.
 CDM1 (Harrington-O'Shea Career Decision Making System)
 Items on computer spreadsheet, with JAWS screen reader.
 Interest Scales:
 Crafts: 11 |*****
 Scientific: 11 |*****
 The Arts: 8 |*****
 Social: 16 |*****
 Business: 9 |*****
 Office Operations: 20 |*****

Valpar-Pro 3000
 * * * * * Interests Summary * * * * *
 Forced Choice Interest Survey

The bar graph displays the results of the Interest Survey. For each interest area, the possible scores range from -11 to +11, indicated by the left and right vertical lines. The middle line is the zero-line.

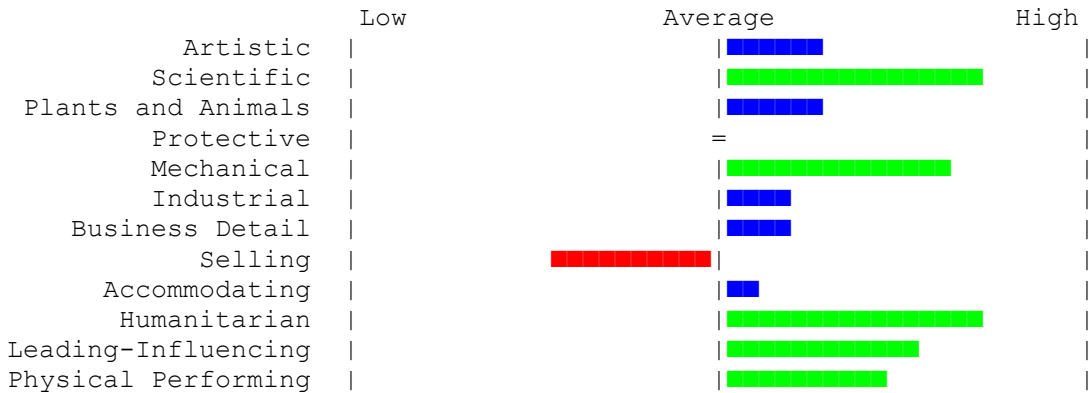


Figure 1. Two Examples of a Positive-Response Style (CDM1 and the Valpar Pro3000)

Underdeveloped, or Negative Response Style

```
Crafts 10 :*****
Scientific 0 :
The Arts 2 :**
Social 3 :***
Business 1 :*
Office Operations 5 :*****
```

Uncritical or Positive Response Style

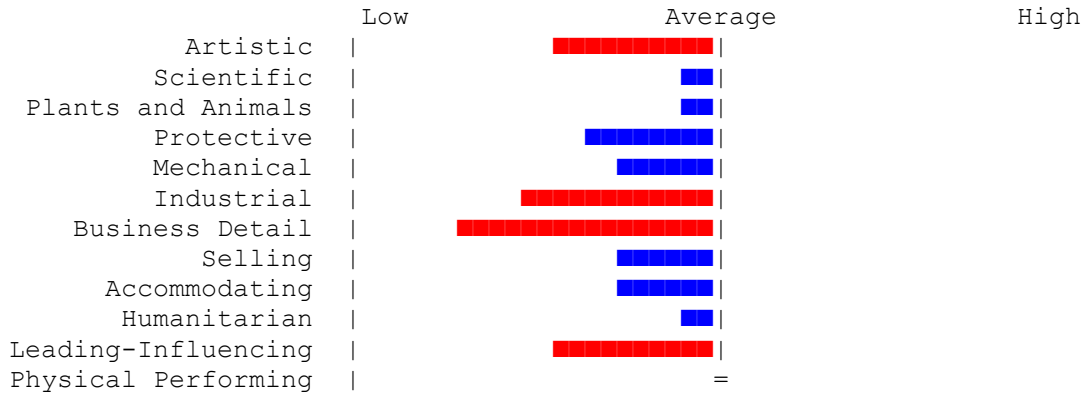
```
Crafts 30 :*****
Scientific 20 :*****
The Arts 25 :*****
Social 23 :*****
Business 18 :*****
Office Operations 24 :*****
(Scores range from 0 to maximum 32)
```

Figure 2. Contrasts in CDM Profiles

*** * * * * Interests Summary * * * * ***

Forced Choice Interest Survey

The bar graph displays the results of the Interest Survey. For each interest area, the possible scores range from -11 to +11, indicated by the left and right vertical lines. The middle line is the zero-line.



*** * * * * Interests Summary * * * * ***

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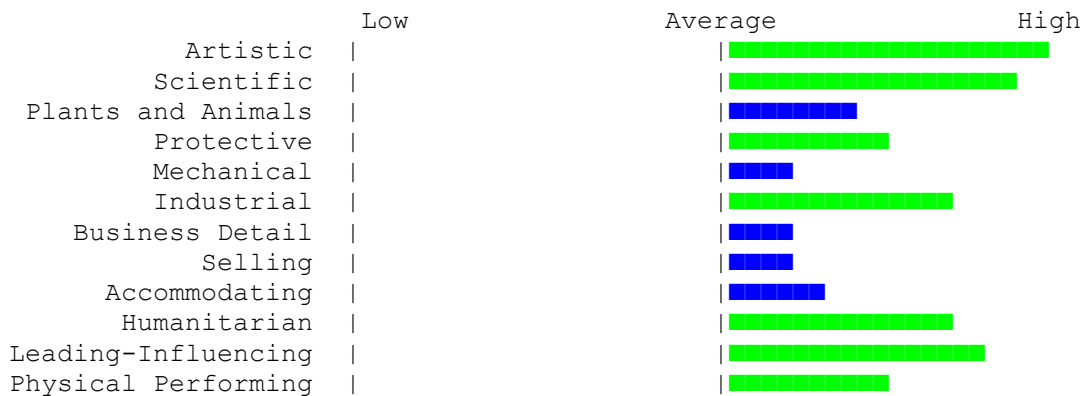


Figure 3. Contrasts in Valpar Pro-3000 profiles

Biographical

Samuel Castiglione, D.Ed., NCSP (ret.)
Career Assessment Services department
Workforce & Technology Center
2301 Argonne Drive
Baltimore, MD 21218
410 554-9171
scastiglione@dors.state.md.us

Currently and for the past fifteen years, a vocational evaluator at WTC (part of Maryland Division of Rehabilitation Services), Baltimore, MD. Current President – Maryland VECAP. Previously three years in executive, sales management & supervisory resource development; prior to that, ten years as a school psychologist in PA and OH. Has been adjunct instructor in behavioral counseling for dept. of nursing, Penn State Commonwealth campuses; and summer instructor in comprehensive assessment in transition planning for Johns Hopkins University.
Former N.C.C. and Vocational Exploration Group (V.E.G.) Leader.
D.Ed. in school psychology, Penn State;
A.G.S. in college counseling & personnel services, Univ. of Md. College Park; M.Ed. in secondary counseling, Gannon Univ.;
M.Div. in pastoral counseling and bioethics, St. Mary's Seminary & Univ., Baltimore.

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The Vocational Evaluator as an Expert in Social Security

Craig Johnston, Ph.D.

Northeastern Illinois University

Abstract

Experienced vocational evaluators with advanced knowledge of the impact of disabling conditions on employability may desire to expand their practice into the forensic field. While potentially lucrative, this specialized area poses dangerous waters for even the most qualified evaluators if they do not fully understand the unique issues and often adversarial nature of courtroom testimony. Many rehabilitation professionals cite serving as a vocational expert in the Social Security Administration as their first foray into the forensic field. This venue provides an introduction to courtroom testimony, including the voir dire process and direct and cross-examination, as well as the alternative application of traditional vocational concepts, namely transferable skills analyses, labor market information, and functional limitations. For the evaluator interested in a career as an expert witness, contract work with the Social Security Administration provides a first step to more advanced forensic work. Unique issues in this field are explored.

The Vocational Evaluator as an Expert in Social Security

Rehabilitation professionals with advanced education and skills in evaluating the employability of individuals with disabilities may be qualified to testify as witnesses in courts of law, and as such may desire to expand their practice to include forensic testimony (Duncan v. WMATA, (2001). Known as Vocational Experts (VE), many of these professionals get their start serving as witnesses in the Social Security Administration (SSA). This venue provides the expert the opportunity to build trial experience in a relatively non-confrontational environment. Trial work in this setting presents opportunities for the VE to testify on several cases in one day, exponentially developing experience in conducting transferable skills analyses, identifying labor market information, assessing the impact of physical, mental, and cognitive conditions on employability, and – most importantly to the aspiring expert –

being subjected to cross-examination by judges and claimant representatives. A basic understanding of the SSA process and the differences between evaluation in the courtroom and more traditional settings is therefore necessary for the aspiring expert.

Social Security Act and Vocational Expert Overview

The use of VEs for litigious purposes arose out of the Social Security Act of 1956. This Act, and its subsequent amendments, provides benefits to any permanently disabled individual considered incapable of engaging in competitive employment. In *Kramer v. Flemming* (1960) the courts ruled that an individual could not be denied benefits based solely on a theoretical inability to engage in substantial gainful activity, but that when the claimant could not perform his/her regular work activity, the SSA was charged with the burden to prove alternative work existed. This role initially fell to the Administrative Law Judge (ALJ), who cited published labor

market information to demonstrate availability of work activity to the claimant. This was found inadequate in 1962, and the SSA began to utilize VEs to determine whether there were jobs for the individual (Harper, 1985).

Today, the Social Security Act provides economic protection for a variety of individuals, including workers who are disabled and adult children who are disabled and over the age of 18 (Blackwell, Field, Johnson, Kelsay, & Neulicht, 2005). The Act defines disability as “an inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment(s) which can be expected to result in death, or which has lasted or can be expected to last for a continuous period of not less than twelve months.”

To determine whether the individual meets this definition, the ALJ follows a five-step sequential evaluation process. The first three steps do not require the assistance of a vocational expert, as the ALJ judges whether the claimant is currently engaged in substantial gainful activity (Step 1), has a severe impairment (Step 2), and meets or equals an impairment described in the Listing of Impairments (Step 3). The claimant is considered to have engaged in substantial gainful activity (SGA) if they earned at least \$860 per month, a key point in determining whether the individual’s past work is considered relevant to their vocational profile. The VE becomes involved at Step 4, answering the question of whether the claimant can perform his/her past relevant work. If the claimant is not currently engaged in SGA, and has an impairment that does not meet a listing, the ALJ determines the residual functional capacity (RFC) of the individual, and asks the claimant to identify whether this would allow for performance of the identified past work. If the answer is “no”, the ALJ moves

to Step 5: identification of other work the claimant could perform. This requires consideration of additional factors, including the claimant’s age, education, and past relevant work. Once occupations are identified, analysis of the presence of jobs in the regional or local economy takes place. Only if the claimant is found to be incapable of past or any other related work, or if the work s/he can perform does not exist in “significant numbers”, are they found to meet the SSA’s definition of disability.

Role of the VE and the Unique Application of Traditional Vocational Methods

Vocational Evaluators have the foundation to provide opinions in SSA proceedings. This basis is developed through training in Masters level CORE (Counsel on Rehabilitation Education) accredited program, experience with administration and scoring of standardized tests, and familiarity with occupational data sources such as the Dictionary of Occupational Titles (DOT). Evaluators are also versed in transferable skills analysis, labor market conditions, and the impact of functional limitations on employability. While the role and functions of evaluators and experts differ, these knowledge areas are shared by both. How each professional applies these critical concepts are not. This, and courtroom testimony, are what differentiates the two professions. Following is a comparison of evaluators in a traditional “vocational rehabilitation” role and experts in a Social Security setting in terms of the application of these concepts.

Transferable Skills Analysis

Transferable Skills Analysis (TSA) is the foundation of any attempt to identify work activity that is consistent with the functional skill levels of a worker (Field, 1993). The process is sequential, beginning with an

identification of the individuals' past work which is subsequently profiled through the DOT and Classification of Jobs (COJ). A vocational profile is then created, and in turn adjusted, based on functional limitations and results of administered vocational tests. Based on this, occupations involving the individual's developed skills are identified (Dunn & Growick, 2000). Once done by hand, today there are numerous software packages that provide instantaneous work options for a client or claimant. The TSA process, although open to scrutiny, is a conservative estimate of work potential, providing a defensible vocational opinion (Dunn & Kontosh, 2002). Whether serving as an evaluator or expert, the vocational professional can make judgment calls as to the identified occupations provided through the TSA. This may include suggesting occupations unrelated to past work, but which may be feasible based on a claimant's education and basic work capacities. For both professionals, an understanding of the methods and known error rate of the TSA and the professional's utilized computer software program is important. For the expert however, his/her ability to explain adequately explain this in a court of law may be the difference to succeeding a *Daubert* challenge, or at the least establishing credibility as a witness. Experts relying on computer software to generate a transferable skills analysis must be able to explain in detail how the program works, as well as provide defensible reasoning for straying from the final data (Elliot, 2002).

The key difference between the vocational evaluation and the expert process of conducting a transferable skills analysis then is twofold. First, the former utilizes transferability to consider not only what the individual can perform at present, but also what retraining is required to enhance employability or meet vocational goals. A vocational evaluator may – for example –

utilize common sense in the form of experience in job placement to suggest that an individual who had engaged in past work requiring a 7-8th grade mathematics level may be capable of engaging in work requiring a high school mathematics level with short-term academic remediation or even on-the-job training. The vocational expert can do this as well, but not without intense cross-examination aimed at questioning how certain this assumption might be (with the threshold typically being within a vocational probability). For this reason, experts often restrict their opinions to what is known to be true, as opposed to what is surmised to be possible. Testifying in the SSA disability process, the expert is typically restricted to identifying occupations related to past work – particularly if the individual is an older person. In the cases of older individuals, transferability is only acceptable if little to no vocational adjustment to the new job is required. For younger individuals, feasible occupations that are unrelated to past work typically are limited to unskilled activities. Further, the evaluator in traditional vocational rehabilitation services may identify work that was done in the remote past. Often this is acceptable if the individual performed the work for a long duration of time, and the job has seen little change to the fundamental process (e.g., bartender). The SSA however considers only those work activities that took place over the past 15 years. Therefore, one cannot assume that a claimant could return to work than s/he performed for 30 years – if none of those years occurred over the past 15 – even if that long held job has not developed over time (e.g., again, bartender). For some experts, this is a source of frustration and a conflict with their belief system in what individuals with disabilities can do for gainful employment.

Unfortunately, there are no options to stray from accepted SSA rulings.

Secondly, the expert may be called upon to explain the reliability and validity of the TSA method including that of any computer software program utilized. While it is certainly recommended that all vocational evaluators understand the reliability and validity of the methods, it is not expected that these professionals will ever actually be called upon to explain it in a court of law. It is probable that most referral sources will not understand these concepts even if they were explained. Conversely, although rare, a claimant's representative in an SSA hearing may request such an explanation in an effort to discredit any opinion of employability offered by the VE.

The TSA process is a fundamental concept for any assessment of return to work options. Both evaluator and expert are well versed in this process, but to the extent that they can consider past work skills is dependent upon the venue in which they work. In the SSA setting, the expert needs to restrict testimony to what is known to be true, while the evaluator has more freedom to be creative as s/he seeks return to work avenues for the client.

Labor Market Information

After feasible occupations have been identified, both evaluator and expert determine the number of jobs in the claimant's labor market. This process includes information collected from government databases providing general employment information. What actually defines an acceptable labor market differs dependent upon setting. Generally, a labor market survey is used to determine the availability of a job; its suitability to the client/claimant, the wages offered, and to ascertain whether a candidate possesses the requisite training and physical capacities for

placement (Neulicht, Gann, Berg, & Taylor, 2007).

When considering a client's access to the labor market, vocational evaluators factor several variables influencing a person's ability to obtain work. Individuals terminated from employment after sustaining an injury may have limited job seeking skills, outdated resumes, or limited confidence in securing future work. Employer attitudes towards persons with disabilities may adversely affect the individual who has been terminated from previous employment. The employers may fear the need for additional supervision of the plaintiff, loss of productivity, and being stuck with the individual if the job does not work out (Peck & Kirkbride, 2001). The evaluator can recommend avenues for securing job placement assistance to return the plaintiff to work in a timely fashion and at a level of pay commensurate with former income. The expert gives no weight to these factors. The ALJ will not consider whether someone would actually get hired into a position, only that they have the education and skills for a particular work activity, and that the cited occupation exists in "significant numbers" in the regional or national economy. "Significant numbers" therefore becomes a key concept in determining disability.

The vocational evaluator typically considers the claimant's "accessible" labor market when identifying the feasibility of a particular occupation. That is, those jobs that would be within a certain radius of the claimant's home that would allow him/her to travel to work. In most cases, this is considered to be no more than 45 minutes from home, and, depending on the claimant's residence in a major city, may even be pared down to a smaller radius to maintain a manageable number of job openings. In SSA cases, accessibility is not a consideration. Once occupations are

identified, the VE determines whether jobs exist in “significant numbers” either in the region where the claimant lives or in several regions of the country. If jobs do not exist in “significant numbers”, the claimant is not considered to have the transferable skills for alternative work. For an individual living in Chicago, IL, the Chicago Metropolitan Statistical Area would be sufficient to identify a “significant number” of jobs. For the individual in a rural setting in mid-State Illinois, the expert can turn to the entire State of Illinois to arrive at a “significant number” of jobs. Some ALJ’s may even instruct the expert to use the National economy as their data source. Ultimately, “significant numbers” is whatever the ALJ deems it is, but feedback from judges reveals that occupations numbering in the low thousands satisfy this criteria.

The expert should expect to be questioned on the source of the data and how up-to-date it is. Using Occupational Employment Statistics (OES) survey data is a frequent resource of many VEs. Unfortunately, in times of volatile labor market conditions this data may quickly be rendered obsolete, and therefore should not be solely relied upon for testimony. Supplementing this information with labor market surveys – through any number of several methods including contact with individual employers, trade agencies, and reviews of classified information – can help the VE establish a more accurate estimation of the number of jobs existing within an occupation at the time testimony is given. Undoubtedly the ethical professional will seek to obtain updated information as well, but it is unlikely the vocational evaluator will ever be questioned, under threat of perjury, as to his/her efforts to do so. The evaluator may choose to ignore labor market information all together, providing information only on occupational titles. For the VE, failure to provide the most recent

information can undermine testimony, leading to errors in ALJ decisions in disability determination and even increasing the likelihood of remand of these decisions.

Impact of Functional Limitations on Employability

Evaluators and experts alike need be familiar with the five strength categories: sedentary, light, medium, heavy, and very heavy. For the expert serving in the SSA courtroom, particular emphasis is placed on the sedentary and light categories, with postural limitations: crawling, crouching, bending, stooping, etc. being of common concerns. While evaluators have the luxury of dealing with one medical opinion, from the physician of record, and inputting stated restrictions into their computerized software programs, scrutinizing the results, and then consulting with the physician of record for concurrence, experts are often called upon to make instant decisions on a series of medical restrictions without the use of technological aid or physician consultation. For that reason, advanced preparation and familiarity with demands of jobs as they exist in the real world is imperative.

Characteristically, the VE is presented with a series of scenarios in which s/he considers the employment opportunities of a hypothetical individual who has the same age, education, and work history as the claimant. These scenarios often follow a pattern progressing from the least to most restrictive limitations. In more obvious scenarios – such as when an individual is restricted to the light demand level – the VE can simply point to the Dictionary of Occupational Titles as evidence of an individual’s ability to meet the demands of the occupation. In other cases however, the DOT is of little help. These scenarios include hypothetical situations such as when there is a need for a sit/stand option, or the claimant needs to take unscheduled breaks,

miss work more than 2 days per month, or elevate his/her legs during the workday. More problematic are mental and cognitive limitations such as the ability to concentrate, maintain persistence, remain on task, interact with the public or co-workers, understand simple instructions, or respond appropriately to changes in the work environment. In these cases the VE will need to rely on his/her intimate knowledge of the real world of work. Again, this is not to suggest that vocational evaluators need not know the effects of these limitations on a client's ability to work but rather to reflect that the Mental Residual Functional Capacity Form – utilized for mental and cognitive demands of work and utilizing a rating scale with undefined and vague frequency terms such as “moderately limited” is unique to the SSA and not typically encountered in traditional vocational rehabilitation cases. Further, in situations involving unique physical limitations (e.g., need to elevate feet) the evaluator might recommend the provision of job placement services to provide assistance in identifying employers who would provide reasonable accommodations. No such assumption can be made in the SSA disability determination process.

In fact, a key consideration in most cases where the claimant is a willing participant in return-to-work services is this provision of reasonable accommodations. Indeed, the Americans with Disabilities Act (ADA) requires that employers consider reasonable accommodations for applicants or employees to increase opportunities for gainful employment among those individuals with disabilities who desire to work. Ironically, despite the ADA being a federal law, and the SSA being a federal agency, the VE cannot consider what impact reasonable accommodations might play in employability. Nor can the VE consider whether case management or job placement

assistance might be of value to the claimant. Therefore, the evaluator testifying within the SSA needs to reject much of what s/he knows to be available to the claimant in terms of vocational assistance, and instead assume that the claimant would be left to his/her own devices in any job search.

Cross-Examination

Easily the most significant difference between the role of the evaluator and expert is the opportunity to testify under oath in a court of law. Vocational evaluators are typically limited in their need to defend their work via oral or written explanation of the tests utilized and methods employed with many case managers concerned only with the listed jobs and not the actual methods used to arrive at these recommendations. Questioning by the referral source or client is rarely considered rigorous, although the evaluator may be called upon to defend the generated vocational plan. Intense cross-examination for experts on the other hand is part and parcel to the role and function of the professional in wage loss cases (personal injury, medical malpractice, etc). In tort cases, cross-examination in depositions and trials is used to find flaws in the expert's testimony and ultimately to discredit his/her opinion. Often, questioning can become confrontational as the attorney not only seeks to minimize the ultimate opinion, but the credibility of the witness as well. Fortunately, heated exchanges are rarely reported in the SSA venue. Some ALJ's will protect the VE against aggressive cross-examination while others will simply deem the expert qualified, eliminating any opportunity for the claimant's representative to voir dire the witness. Some, however, will permit pointed questions designed to scrutinize the VEs opinion. This is to allow the attorney to challenge whether the expert meets the standards of admissible witness providing reliable and relevant testimony.

In many states and at the federal level, experts are beholden to the *Daubert* standard. The standards of admissibility identified in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993) require that expert testimony is both reliable and relevant, and be provided by a qualified individual. The Court identified a four-pronged test to determine the admissibility of scientific evidence:

- whether or not the theory or technique can or has been tested;
- whether or not the theory or technique has been subjected to peer review and publication;
- whether or not there is a known or potential rate of error in the theory or technique; and
- the level of acceptance of the theory or technique in the scientific community (Field, 2002).

In addition to gauging relevance, reliability, and utility, *Daubert* requires the expert to be qualified by demonstrating specialized skills and training. With these criteria now vital to the admittance of the expert, post-*Daubert* has seen judges closely scrutinizing reliability and applying stricter standards in deciding whether to admit expert evidence (Dixon & Gill, 2001). In tort cases, where millions of dollars may be at stake, the VE can expect rigorous cross-examination as opposing counsel seeks to discredit credibility and testimony in an effort to minimize monetary awards. Many vocational professionals have not withstood the pressures of testimony, opting to refrain from forensic work where their reputations are under constant attack. The frequency and severity of *Daubert* challenges in the SSA setting are mild in comparison.

The SSA provides an opportunity for the VE to provide testimony in a relatively pressure free environment. While the ‘voir dire’ process involves a pre-trial examination of the witness to establish the

extent and limit of his/her expertise, the expert testifying in this venue rarely is subjected to this process. Claimant representatives who have never encountered a particular VE may ask for some broad description of the educational and work experience background, but this is often already provided in an exhibit in the record and may just be for show. While the *Daubert* ruling provides only the broad requirement that a witness be “*qualified...by knowledge, skill, experience, training, or education*” it is generally agreed that some combination of education, credentials, work experience, membership in professional organizations, adherence to an ethical code, teaching experience, and publications be possessed to qualify as an expert (Johnston, 2003).

Experts in this setting rarely are subjected to the voir dire process, but when it occurs, it is often straightforward and non-confrontation, giving the VE a basic understanding of what to expect from challenges in other forensic settings. Once accepted as qualified, attention turns to the methods, and specifically, the relevance and reliability of testimony to be presented. To survive a *Daubert* challenge, the expert must demonstrate that s/he is presenting testimony based on ‘scientific knowledge’, and have opinions that will assist the jury. Under the *Federal Rules of Evidence*, expert testimony may also include technical and specialized knowledge, thus bringing vocational testimony into the fold. Additionally, the four-pronged test is not rigid, allowing the judge, as gatekeeper, to apply any combination of the four tests to determine admissibility. For many judges, distinguishing between these three categories is a burden (Feldbaum, 1997). Perhaps because of this, *Daubert* hearings for admissibility of testimony remain infrequent (Brodsky, 1999). When cross-examination does occur, it usually centers

on the VE's testimony regarding feasible occupations and their existence in "significant numbers." The claimant's representative may ask questions regarding the region in which the job numbers were given, how current labor market information is, whether the expert has ever actually witnessed the occupation being performed in a real work setting, or whether skills from past work are transferable. In fact, the VE may be questioned on a wide range of things, including additional hypothetical situations offered up by the claimant's representative. Yet intense scrutiny is rare, providing opportunities for the expert to build experience with cross-examination prior to entering more volatile casework such as personal injury, medical malpractice, or employment discrimination cases. With multiple cases assigned in one day (4-5 cases are typical), the evaluator rapidly builds trial experience.

Preparing to Serve as a VE in the Social Security Administration

The evaluator seeking to enter the forensic arena, specifically as it applies to the SSA, is cautioned to heed to the recommendations provided on what it takes to be considered an expert. These include a Masters' degree in rehabilitation from a CORE accredited university, experience providing job placement and vocational evaluation services, a demonstration of expertise via published writings and presentations at vocational conferences, membership in professional rehabilitation and forensic organizations, and adherence to an ethical code. Specific requirements include familiarity with the Dictionary of Occupational Titles and other occupational resources, understanding of transferable skills analysis, labor market research, and the impact of functional limitations on employability are also central to the role of the VE. The way in which the VE applies

these concepts to work however differs from the evaluator working in the traditional vocational rehabilitation. For that reason, additional training is recommended.

Only recently has there been the creation of a graduate level training program designed specifically for aspiring forensic practitioners. In response to a perceived need for formal training for VEs (Johnston, 2006), a certificate program at Minnesota State University, Mankato, available online, was created to provide interested students with forensic training. Absent this, most VEs rely on self-study through attendance at professional conferences such as those hosted by the forensic division of the International Association of Rehabilitation Professionals, reading that organization's professional journal, or participating in their frequent Webinars dedicated to forensic work in order to learn more about the field. With few having engaged in formal training, it is not surprising that only 22% of VEs report being fully prepared to handle their first forensic case (Johnston, 2006).

Even those who hold contracts to serve as a VE in the SSA indicate an absence of formal training being provided by that federal agency. The office in which the VE is primarily assigned should offer some training beyond simply reading the "Vocational Expert Handbook." At minimum, the expert should request to sit with an experienced witness to observe the proceedings, and begin to formulate an idea of the expectations of the expert. For interested evaluators, some form of training specific to work as an expert witness is highly recommended.

Conclusions

Experienced vocational evaluators have the foundation to serve as expert witnesses in a court of law. Serving as an expert in the Social Security Administration is a good

way for an evaluator to begin to attain experience in a courtroom setting. This venue allows the evaluator to utilize their current skills, hone those skills that will be utilized in more intense forensic settings, and become familiar with testifying in front of a judge and opposing council. Understanding of the application of a transferable skills analysis, labor market research, and the functional limitations as they apply to the forensic setting is imperative. Serving in the SSA provides an introduction to these concepts as they are dealt with in a forensic setting, as well as allows the expert to gain experience in testimony and cross-examination. The VE, called for multiple cases in one day, gains this valuable experience quickly, presenting the practitioner with the opportunity to build quickly their case experience. While the work demands a high level of competence, serving as a VE in the SSA is seen by many experts as a bridge to more challenging work in other courtroom settings.

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VEWAA, VECAP and CVE: Where Have We Been? Where Are We Headed?

Steven R. Sligar, Ed.D., CVE
East Carolina University

Chad J. Betters, Ph.D., CDMS, CRC, CVE
Winston-Salem State University

Abstract

Vocational evaluation is a profession at the crossroads. The profession saw growth in the 1960's thanks to a few interested vocational evaluators, who developed a strong national organization, the Vocational Evaluation and Work Adjustment Association (VEWAA), to a schism that created a new organization, the Vocational Evaluation and Career Assessment Professionals (VECAP). At present the combined membership of both organizations is less than VEWAA at its zenith. We have witnessed the development and dissolution of the Certified Vocational Evaluation Specialist (CVE). Where are we headed as a profession? Current trends including collaboration, publications, use of technology and a need for re-vitalization of the profession are discussed.

Those who do not learn from history are doomed to repeat it.

George Santayana

For almost a half a century, a very large number of investigators and working professionals have committed a great deal of time and effort to the development of techniques designed to evaluate and predict work behavior.

Walter S. Neff (1966)

Vocational evaluation is a profession. It is comprised of men and women who have developed a professional identity as they participated in formal academic and/or in-service programs. Vocational evaluators have learned on the job and from each other. Historically, vocational evaluation has emerged from clinical and industrial psychology, vocational and special education, occupational therapy, the military, and community rehabilitation programs (Pruitt, 1986; Thomas, 1997). Recently, rehabilitation engineering and assistive technology have influenced the

practice (IRI, 2003). The Institute on Rehabilitation Issues has convened three prime study groups (1972, 1987, 2003) to examine vocational evaluation and each has documented the professionalism of the field. Concurrent with the maturing of a professional identity, Vocational Evaluators have sought to develop forums for the exchange of best practices and research, the establishment of credentialing, and the implementation of service delivery standards through professional organizations.

1973 was the end of the first year of the VEWAA Vocational Evaluation Project, which was purposed to "attain and publish a professional consensus with respect to (1) the nature, characteristics and unique features of work evaluation" (p. 6) and to examine processes, knowledge and skills of evaluators, target populations, and possible standards for service delivery (Crow, 1975). In the Year One Report opening section, *Setting the Context*, Stanley H. Crow (1973) wrote:

The time has come for those of us who profess to possess these talents (as

Vocational Evaluators) to seriously ask “Where have we come from?”, “Where are we now?”, and “Where are we going?” (parenthetical information added; p. 1).

His words still ring true and are used as the framework for an examination of VEWAA, VECAP and CVE.

VEWAA’s Past and Present

The creation of VEWAA occurred during the turbulent 1960’s. History teaches us many things, one in particular that VEWAA was birthed from the acknowledgement of some, and was quickly endorsed by many. Nearly 45 years ago, a small conference convened in Warm Springs, GA, focused on vocational rehabilitation issues and concerns. Even though discussion regarding the necessity of an evaluation-oriented organization, preferably a division of the National Rehabilitation Association (NRA), was prudent, one presentation, “What is Evaluation,” fueled the fire that had yet to be ignited (Hoffman, 1971/2008). This presentation introduced to the conference attendees the reality that a need for a professional association, and furthermore a professional identity, was warranted.

Over the next two years, VEWAA was not only conceptualized, but activated and thrived. Membership exponentially grew, with a recorded 821 members within the first 4 years (Hoffman, 1971/2008). State chapters emerged. In 1968 VEWAA was granted full divisional status with the NRA. A clear identity of the Vocational Evaluator was discussed and identified at a think tank sponsored in part by the Association of Rehabilitation Centers (ARC; Pruitt & Pacinelli, 1969). VEWAA was commissioned by the Rehabilitation Services Administration (RSA) as a primary contributor to the examination of the emerging profession in the Vocational Evaluation Project (1975). During the

1970’s VEWAA was the primary developer of a credentialing process that included the Certified Vocational Evaluation Specialist (CVE) and provided input to the Commission on Accreditation of Rehabilitation Facilities (CARF) standards for comprehensive vocational evaluation services. Shortly after the developmental meetings, VEWAA published a newsletter and later added the Bulletin, which eventually became a peer reviewed journal. Vocational evaluation was considered a specialty within the field of vocational rehabilitation, neither above nor below rehabilitation counseling, but simply a precise practice governed by a specific philosophy, knowledge base, ethical code, and skill set. “Throughout the decade of the 1970s, VEWAA seemed to be well recognized and understood and held a position of respect from practitioners in the field” (A.J. Langton, personal communication, June 28, 2010).

Currently, VEWAA is a struggling organization: membership hovers around 200, which approximates a -300% loss from its highest point. State chapters have dwindled and are difficult to recognize. VEWAA governance has ebbed and flowed, and the journal sporadically published. The newsletter has collapsed into the NRA newsletter and at times there has been no news from VEWAA. The forefathers of the organization most likely would not have predicted this outcome when they laid the foundation for vocational evaluation over forty years ago. VEWAA has felt the changes occurring in the field and has not aged gracefully.

Schism

In a seminal book on work (vocational) evaluation, Walter Pruitt (1986) made a prescient statement: “...work evaluation is not limited to vocational rehabilitation” (p. 2). As VEWAA grew and the profession

embraced those who practiced outside the traditional bounds of state vocational rehabilitation agencies, tension developed. Vocational evaluators in other fields (e.g., private practice, business and industry, workers compensation, forensic evaluation, career assessment, veterans services, education), were drawn to VEWAA as a professional home. These Vocational Evaluators found the disability focus of the NRA narrow and confining. They worked in other systems such as private insurance or human resource development, which have different legislative priorities and organizational missions. Additionally, many of these Vocational Evaluators were providing the service to persons who were not disabled such as those who are economically disadvantaged or privileged and willing to pay for a vocational evaluation before making a career change. Along these lines, VEWAA developed a "Blueprint for the Future" that indicated the need to look in a new direction. Another mitigating factor was the dues structure. In order to be a member of VEWAA, the professional must first join NRA. Many members felt this was unfair.

In 2000 the President and Board of VEWAA asked the members to vote on a motion to modify VEWAA's By-Laws to become a separate entity. Upon ratification, NRA claimed that the vote was not legal because it did not follow the rules of the organization. Because NRA held the federally registered trademarks Vocational Evaluation and Work Adjustment Association VEWAA and design ® (Reg. No. 2,546,816) and VEWAA® (Reg. No. 2,524,871) the new organization adopted the name of Vocational Evaluation and Career Assessment Professionals (VECAP). VEWAA continues as a division of NRA.

VECAP's Past and Present

The Phoenix was chosen as the icon for VECAP because it represented a new beginning for the profession: one that is broader in context and based in the ashes of the original VEWAA. On VECAP's home page (www.vecap.org) the organization states that it began in 1967 as VEWAA and changed its name to VECAP in 2003 "to better reflect the focus of the organization as well as emphasize the independent status of the organization." In the same paragraph VECAP states "This group has no affiliation with the National Rehabilitation Association (NRA) or the NRA/VEWAA."

Continuing the tradition of advancing the field of vocational evaluation (and an additional focus of career assessment), VECAP publishes a newsletter and a peer reviewed journal. VECAP also hosts the National Issues Forum, a conference that combines research, best practices, and position papers and publishes the proceedings. The VECAP website contains static and dynamic information for professionals and the public. There are videos about the profession and the service, position papers, seminal publications, information about training programs and other resources. VECAP also has a facebook page and during the 2010 Issues Forum members who were not in Oklahoma City were able to follow the conference on twitter. There is a member's blog from Maryland and other online opportunities for networking and learning about the profession.

VECAP is also a struggling organization. Membership stays around 200 and there are few state chapters. The journal is published twice a year with two planned for 2011. Leadership is present and viable, though concentrated in a few dedicated volunteers. The electronic newsletter is published

quarterly with the support of a strong and dedicated home office staff.

The CVE

The Commission on Certification of Work Adjustment and Vocational Evaluation Specialists (CCWAVES) was established in 1981. Certification represented the culmination of the work of many professionals who wanted to establish a clear identity that represented knowledge of the underlying philosophies and principles, mastery of the tools, and adherence to a code of ethics.

In 2008 CCWAVES ceased to exist and no new applications for CVE can be accepted. Dissolution of CCWAVES was brought about by several factors that included the dwindling number of certificants and the cost of developing, administering and maintaining the exam (R. J. Spitznagel, personal communication, September 9, 2008). Dissolution is troubling in several ways. It may be a disincentive for those interested in a career in vocational evaluation. The professional identity is eroded because a lack of credentialing in essence opens the doors for all to practice freely without governance and oversight. The legitimacy of those in practice may be questioned during workers compensation cases, negotiation or other litigious situations. The CVE still exists in maintenance mode for those currently certified. The dissolution of CCWAVES begs the question: will certification of Vocational Evaluators survive or inevitably phase out like obsolete technology? Which leads to a broader question: is the dissolution of CCWAVES the canary in the coal mine for vocational evaluation?

The Future

To discuss the future of VEWAA, VECAP, and certification is really an examination of the future of the profession.

A snapshot of vocational evaluation 40+ years since formal recognition by NRA, RSA, ARC, CARF, and others reveals a radical change has taken place in the conceptualization of the profession. In some cases the specialty has lost its individuality, and is even considered by a few to be non-existent. The identity is lacking, and the roles and functions of Vocational Evaluators have become blurred. Is vocational evaluation a practice, or is it a task to be completed by rehabilitation counselors, comparable to vocational counseling, case management, and job placement? The authors of the 30th IRI (2003), the leaders of VEWAA and VECAP, and the Vocational Evaluators who are practicing their profession would disagree. There are signs of renewal from the field, VEWAA and VECAP.

All is not lost; one lesson from history is that just because vocational evaluation is down, does not mean it is out. The profession still has a pulse. There are two organizations with a combined membership around 400, two journals, two web sites, and numerous training conferences: these speak volumes. The fact that a critical mass of organizational members has remained despite the downward spiral sheds positive light. There are individuals who still believe in the original concept of vocational evaluation and who proudly identify as Vocational Evaluators. Some have connected with one of the organizations and are trying to rebuild. Because of the way the changes have taken place, there are obstacles: a lack of unity, a collective voice, and a stronger professional identity as perceived by stakeholders. All of the obstacles can be removed, yet to do so requires prompt action. Call it enlightenment, evolution, or revolution, change is due and desirable.

There are pockets of activity that indicate the profession's revitalization. The

demand for vocational evaluation services has resulted in continuation of jobs for Vocational Evaluators as Vocational Rehabilitation agency employees in several states. In-service training conferences in NC (2007, 2008) and OK (2009) saw state VR agency Vocational Evaluators learning ways to improve effectiveness. Virginia hosts an annual transition conference that includes training for Vocational Evaluators. In 2009 the job title of Vocational Evaluators in South Carolina was changed to Assessment and Career Evaluation Specialists (ACES; G. Plotnick, personal communication, June 29, 2009) and in casual conversations is often referenced as vocational ACES. At a training conference in South Carolina (February 2010) when asked about the name change and new policies that were a “return to basics,” the ACES responded favorably. They commented on renewed zeal, interest and pride in their profession, empowerment for clients, and the ability to provide better information for counselors and clients.

Fortunately, VEWAAs future is beginning to look favorable. The past year (2009-2010) has produced an understanding that significant work is needed, and invested parties are stepping up to the plate. The VEWAAs Journal has unveiled a new online issue (http://vewaa.com/resources/publications_journal.dwt; Spring, 2010), the first in two years, and the publication gears are turning. VEWAAs also sponsors training activities at state, regional, and national conferences.

VECAP is showing signs of life as well. There is a strong home office, a regular newsletter and a web site with many resources. A new edition of the VECAP Journal was available at The National Issues Conference in Oklahoma City (April 2010). On the horizon is an increase in social networking and other online resources to communicate better with members.

The dissolution of CCWAVES, while disappointing, may have produced unintentional positive consequences. VEWAAs and VECAP have joined forces to study credentialing. They jointly established the Vocational Evaluation Credential Task Force during the fall of 2009 and a report is expected fall 2010. This new professional credential will be accompanied with clear eligibility requirements. Another sign of collaboration was VEWAAs sponsorship of a session at the National Issues Forum. In North Carolina the state VEWAAs chapter along with the NC Rehabilitation Counseling Association (NCRCA) has added VECAP as a co-sponsor of the NCVEWAA/NCRCA biannual training conference.

Forty-five years ago the profession was birthed from a discussion that asked “what is evaluation,” and it seems that the profession is on the verge of being re-birthed. The same question still applies because in order for the profession to become alive: it needs to be re-identified. Vocational evaluation needs to be re-established as a specialty, a crucial component in the process of assisting individuals, including those with disabilities, towards successful employment. Vocational Evaluators need to look in the mirror and see themselves as unique professionals, not simply providers of an essential function to all those involved in vocational rehabilitation. Individuals desiring to be Vocational Evaluators need to join the small group of those working to re-invent the identity.

VEWAAs, VECAP and the profession are at a crossroads. Extinction or evolution is going to happen and the outcome is controllable: either do nothing or work hard. Work is the very construct that serves as the epicenter of vocational evaluation. There is a reason why VEWAAs is visually represented by Hephaestus, the Greek god of work and craftsmanship. Vocational

evaluators are experts in work, and work is needed to save our profession. To call it ironic is an understatement.

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Author Note

Thanks to Mike Ahlers and Tony Langton for their contribution of dates and other information about VEWAA, the schism, the formation of VECAP, and certification. Since this paper was written and presented, a new credential for vocational evaluators was created: the Professional Vocational Evaluator (PVE). For more information visit <http://pveregistry.org/about/>

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Feature Session: The Use of Social Media Tools in Vocational Evaluation and Assessment: Sharing Expertise and Resources

Frances G. Smith, Ed.D, CVE
Virginia Commonwealth University

Social media technologies including the use of blogs, wikis, social bookmarking, video sharing sites, and social networking communities have transformed the web into a platform of participation. Students enter classrooms with learning experiences shaped by the practice of creating, sharing, and commenting with these tools. The students see the web as a space defined by social interaction and exchange. Yet how many educators blend these practices into their instruction? How can vocational evaluation and assessment practitioners and educators utilize these tools to expand the reach of their expertise? How can consumers be better served through a practice that maximizes these tools? This session will provide participants with an opportunity to learn how to enhance their practice and develop collaborative virtual communities through the employment of social media tools. Considering Web 2.0 tools such as blogs for reflection activities, collaborative wikis for community tools, and social networking sites for sharing expertise and discussion will be reviewed. The purpose of this session was to share and demonstrate how the use of social media tools including blogs, wikis, video sharing sites and social networking communities can become a means of enhancing vocational evaluation and assessment practices and build communities of practitioners in today's world. Participants were introduced to the following during this presentation:

- 1) Types of available social media tools and explore research that

has highlighted the practice and use of these tools.

- 2) Content created in social media spaces for developing communities of learners and practitioners.
- 3) Ways these social media tools might be used within participants' practice.

A link to conference presentation wiki can be found at:

<http://vecapsocialmedia.pbworks.com/>

Biographical

Dr. Smith has extensive experience in instructional and assistive technology, vocational assessment and universal design for learning. She has followed these fields for the past 25+ years and integrated these approaches in her work as a vocational evaluation practitioner in rehabilitation and secondary public schools, assistive technology provider, staff development trainer, and college instructor. Currently she serves as the Coordinator of Technology and Distance Learning for the Virginia Department of Education's Training and Technical Assistance Center at Virginia Commonwealth University (VCU). Over the past three years, Fran has been a member of a Faculty Learning Community and Learning Technology Research Group with the VCU Centers for Teaching Excellence studying the role of technology in teaching and learning at VCU—particularly the area of social networking. In 2009 she researched the academic and personal uses of social media tools among university students in education. Her current areas of interest relate to the importance of universal design for learning, learning technologies, and social networking in education and training.

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PRESENTATION ABSTRACTS

14th National Forum on Issues in Vocational Assessment
Finding Your Career Path Through The Lifecycle
Vocational Evaluation and Career Assessment Professionals
April 8 – 11, 2010
Oklahoma City, OK

PRE-CONFERENCE SESSIONS

Fundamentals of Vocational Evaluation

Mike Ahlers

This preconference session provided an introduction to the fundamental concepts, values and definitions of the field. This is a great workshop for the person just entering the field or for the more seasoned professional looking to brush up on essential skills.

The Right Question + The Right Instrument = The Right Information

Steve Sligar

If you ask an evaluator—what bugs you? Two answers may be: ambiguous referral questions and how do I select an instrument to answer those questions? Along the same lines, if you ask a rehabilitation counselor—what bugs you? The answers may be: how to ask questions to get the information I need and just what was the reason this test was selected? This interactive workshop addressed these topics. Participants learned how to develop and examine referral questions and interview consumers and colleagues to determine what they want: their underlying issues. Participants learned how to conduct a construct/content analysis of tests to determine what the tests report they measure and what they really measure. You will learn to select a tool that measures

the characteristic that matches the intent of the referral question and how to report the results. Finally, participants developed and practiced using a plan to learn how to formulate better questions and teach consumers how to ask empowering questions of the evaluator

The Evaluator – Expert: Assessing Employability in the Forensic Setting

Craig S. Johnston

Vocational experts are called upon by the courts to render an ultimate opinion of employability and to identify future earnings potential. For the experienced vocational evaluator, forensic work may be a desirable career path. Before an individual can testify in a legal setting however, they must understand the qualifications needed to be admitted as an expert, the methodology required under the law, and the change in roles from one of assisting an individual with finding work to one of assessing loss of earnings capacity. This presentation provided a broad overview of the functions of the vocational expert, providing the attendee with a foundation for future work in this challenging and highly specialized practice area.

What Vocational Evaluators Need to Know to Collaborate with Special Educators to Improve Transition Planning for Students with Disabilities

Pamela Leconte and Marsha L. Legg

This session focused on information and strategies for collaboration between vocational evaluators and school transition services. The major elements of this session included:

- What the laws say about transition and assessment focusing on IDEA 2004, the Rehabilitation Act and the Workforce Investment Act.
- Defining functional vocational evaluation methods by creating a shared language among schools and adult agencies.
- How to translate vocational evaluation data into individualized plans (IEPs, SOPs, and IPEs) as well as how to use data from individualized plans for vocational evaluations.
- How youth are different from adults when it comes to transition assessment
- Overview of school-sponsored vocational and career development programs including a model framework for school-based and community-based programs as well as an overview of model programs.

KEYNOTE SESSION

Mentorship: The Key to Personal and Professional Development

Brian Kurth

An organization's most important resource is its team of employees. Not only for the job they do individually, but for their ability to motivate and inspire each other. Creating a work environment that recognizes the importance of sharing expertise and experience between employees is a critical component of employee development. Development takes more than a training program or a mission statement. It takes people.

An internal mentorship program provides the vehicle to initiate mentor/mentee relationships and expand the

scope of experience for the entire workforce unit. Using your internal expertise is an effective and economical way to provide effective professional and personal development, while increasing understanding, appreciation and respect for the role of each employee in the functioning of the company as a whole.

Brian Kurth, founder of VocationVacations and the career consulting firm, Brian Kurth + Company, shared the steps to creating effective organization-wide, pre-hire and post-hire mentorship programs that will foster personal and professional growth as well as increase staff morale and employee satisfaction.

<http://vocationvacations.com/>

GENERAL SESSIONS

Polytrauma and the Returning Soldier, Implications for Career Assessment and Vocational Evaluators

Mike O'Brien, Sylvia Marotta, B.J. Nevels, and Terri Miller

More than 1.6 million veterans have served in the wars in Iraq and Afghanistan. Many are returning with polytraumatic experiences, some of which include brain injuries and posttraumatic stress (PTS). The complexity of polytrauma creates a challenge to the systems charged with assisting these returning warriors into new careers. Part of the solution is the need for a clear understanding of the injuries and presenting problems for which counselors will have to assess. There is a need for developing services to re-integrate these warriors back to the civilian workforce. This session will describe research on exposures to extreme combat stress, levels of PTS, and occupational histories of returning veterans. This presentation described the systems that veterans pass through from injury to return home. Finally, rehabilitation service needs

for vocational evaluation and other career services required for returning veterans were discussed interactively with the audience.

Social Media: New Opportunities for the Profession

Frances Smith

Social media technologies including the use of blogs, wikis, social bookmarking, video sharing sites, and social networking communities have transformed the web into a platform of participation. Students enter classrooms with learning experiences shaped by the practice of creating, sharing, and commenting with these tools. They see the web as a space defined by social interaction and exchange. Yet how many educators blend these practices into their instruction? How can vocational evaluation and assessment practitioners and educators utilize these tools to expand the reach of their expertise? How can consumers be better served through a practice that maximizes these tools? This session provided participants with an opportunity to learn how to enhance their practice and develop collaborative virtual communities through the employment of social media tools. Considering Web 2.0 tools such as blogs for reflection activities, collaborative wikis for community tools, and social networking sites for sharing expertise and discussion will be reviewed.

<http://vecapsocialmedia.pbworks.com>

The Way Forward: Certification and Credentialing

Karen Pell and John Lui

With the dissolution of CCWAVES in 2008 and subsequent loss of the opportunity for acquisition of certification as a Vocational Evaluator joint efforts and work groups have come together in a common goal to explore, "What's next?" This session

discussed what CAVEWAS (Canadian Assessment, Vocational Evaluation and Work Adjustment Society), VECAP (Vocational Evaluation and Career Assessment Professionals), and VEWAA (Vocational Evaluation and Work Adjustment Association) are exploring and working on for future Vocational Evaluators.

FEATURED SESSIONS

Square Pegs and Round Holes: Vocational Evaluation/Assessment and Assistive Technology?

Jeffrey Annis, Janelle Bjorlie-Ellis, Anthony Langton, Terri Miller, and Shawn Zimmerman

This session Explored relationships between vocational evaluation and assistive technology through the analysis of programs in three service delivery settings. Case studies illustrated operation of each VE-AT program. Discussion and question/answer identified approaches and key factors that have contributed to program success. Participants came away with information and resources that could be used to implement or enhance use of assistive technology in vocational evaluation and assessment programs.

Creating Transition Assessments that Work: National Community of Practice on Transition

Marsha Legg and Ashley McFall

This presentation discussed the newly developed National Community of Practice on Transition and Career Assessment. Attendees heard descriptions of the group's goals, initiatives, and work that has been accomplished to date. The presenters provided valuable resources, tools, and

information on how to get involved in future work.

<http://www.sharedwork.org>

Developing, Sharing and Accessing Work Samples

Nancy Scott and Danise Basic

During this session participants discussed the development of work samples and shared their work samples with others. A plan to expand the work sample sharing on the members' only area of the website was planned.

<http://vecap.org>

PAPER PRESENTATIONS

Are Vocational Evaluators Ready to Change? Do We Need to?

Pam Leconte

Vocational evaluation as a profession and service has undergone constant transformation to meet the changing needs of society and work (business and employers). Vocational evaluators have transformed their skills as the profession has evolved. This has not been easy, because we have too few professional development or educational opportunities to meet the needs of our profession. However, we continue to exist and possess a professional identity. The presentation examined the changes we have made as a profession and those we may need to make now.

To set the context for this discussion, a review of major milestones in vocational evaluation were presented along with an application of change models to the evolution and future of vocational evaluation. The trans-theoretical model of change is one of several change paradigms that will be applied to vocational evaluation. Are we ready for change? Must we keep changing? Are we tired of change? Does it

invigorate us? Or, does it undermine our efforts to maintain the qualities/elements of a profession?

Do we have the supports and scaffolding in place that will allow us to continue as a profession? Current "supports" and "scaffolding" will be rated regarding the general "health" of our profession. Recent advancements and setbacks in the field have had a major impact on the future of our field. For example, social networks of vocational evaluators and pertaining to transition, career, and vocational assessment are emerging to link professionals from around the globe. Such social networking as the VECAP ning and the national Practice Group on Career and Transition Assessment are connecting professionals who have long or often been isolated. They now have the potential to collaborate at every level of their practices. On the other hand, the Commission on Certification of Vocational Evaluators and Work Adjustment Specialists (CCWAVES) was dissolved in 2009. What does all this mean for our individual and collective futures? What does it mean for our consumers? These and other trends formed the basis of an interactive discussion about our profession, professionals, and services.

Cultural Considerations in Vocational Evaluation

Carri George and Brenda Fitzgerald

This session was a 90 minute panel presentation with questions and answers. Vocational Rehabilitation personnel who are members of different cultural groups discussed the impact a person's cultural background can have on the vocational evaluation process and outcomes. Panelists talked about specific areas in which cultural misunderstandings can occur, such as etiquette, family involvement, concepts of disability, spiritual beliefs and use of

language. Participants will be encouraged to ask questions and dialog with the panelists. All of the presenters worked in Vocational Rehabilitation for a number of years, and most were members of underrepresented culture and ethnic groups.

Are We All on the Same Page? Clarifying Levels of Vocational Assessment

Juliet H. Fried, Debra B. Homa, and Shawn L. Zimmerman

There has been considerable confusion over the years regarding what vocational screening, vocational assessment, and vocational evaluation actually are. Oftentimes, these terms are used interchangeably when, in actuality, there are differences in service delivery and outcomes resulting among these various services. This presentation focused on understanding current levels of vocational assessment, types of information expected from each, and the use of 21st Century vocational evaluation techniques to assist in addressing federal mandates such as informed choice, consumer involvement, and performance standards in order to achieve positive employment outcomes.

Transition Assessment: Best Practices and Strategies for Practitioners

Marsha Legg, M.A.; Ashley McFall, M.S., CRC, CVE

This presentation provided a practical overview and in-depth discussion of transition assessment, and highlighted the Start on Success (SOS) Program, a program which has successfully incorporated ongoing and meaningful assessment techniques to assist students with disabilities in transitioning from school to adulthood. The SOS Program launched in 1994 by the National Organization on Disability (NOD),

is now operational in more than thirty schools nationwide.

The presenters were practitioners from the Pittsburgh and Baltimore SOS Programs, and discussed how each unique program has incorporated transition assessment, classroom instruction and community work experiences to facilitate self-determination and successful outcomes. Two presenters were members of the National Vocational Evaluation and Career Assessment Professionals (VECAP), and have leadership roles in the recently established work group focusing on developing standards and evidence-based practices regarding transition assessment.

The following key topics were discussed:

- **Determining Appropriate Assessments:** Transition assessment is an ongoing process gathering information on interests, values, needs, abilities and aptitudes. Assessments should also be age appropriate and incorporate a variety of methods (formal, informal, situational, interviews, curriculum-based, etc.).
- **Assessment Administration:** Administration varies based on student's individual needs and desires. The presenters will discuss the methods of administering assessments utilized in SOS Programs, and how they can be administered in a variety of settings to maximize results.
- **Use of Results:** Results are shared with the IEP team, including the student and parents, and are used to develop transition plans for the IEP that include vocational, independent living, recreational and post-secondary goals. Results are also used to develop the mandated Summary of Performance (SOP), which should follow the youth to all relevant post-school service providers (i.e., VR, Adult Community Rehab Providers, etc.)
- **Self-Determination of Youth:** Most importantly, the youth are involved of every aspect of the process. Transition assessments

should promote an increase in student self-determination and self-advocacy skills, so youth are prepared to fully participate and “lead” their own IEP meetings as well as adult services.

Attendees left with an understanding of the comprehensive assessment protocols developed by SOS. Attendees were also provided with a wealth of resources, including assessment tools and techniques that have been proven to generate exceptional outcomes.

Web-based Assessment Tools to Aid in the Assessment of Vocational Interests, Learning Style, Aptitude, and Multiple Intelligences.

Lisa Blakeney

Web-based assessment tools are widely available on the internet at a low or no cost, and can be used as part of any one of the defined Levels of Vocational Evaluation (i.e. Screening/Needs Assessment, Exploratory, or Comprehensive). Web-based assessment tools can enhance the evaluation process and experience for the client being served and aid in triangulating the results. However, caution should be used with web-based assessments. The presenter shared a variety of web-based assessments related to interests, aptitudes, learning style and multiple intelligences that were compiled into a matrix including name of the assessment, cost (if any), reading level, and the length and time to complete the assessment.

Racial and Ethnic Minorities and Vocational Assessment and Career Placement

Sharon Brown, Andre Washington, Tiwanda Cox, Fiyia Sicarr, Lashelle Tennyson, and William Turner

This research paper explored why cultural competence is a crucial component of vocational assessment. The paper focused on three main objectives: (1) gaining a greater understanding of the role of cultural competence in the vocational process; (2) achieving a greater understanding of the impact of bias in testing as well as counselor bias related to culture and values and (3) achieving a greater understanding of methodology by which evaluation practitioners may compensate for the effects of cultural bias on assessment results.

Professional multicultural rehabilitation competencies and standards are necessary if persons with disabilities from diverse ethnic backgrounds are to be well served by rehabilitation counselors (Rahimi, Rosenthal, & Chan, 2003). Current and future rehabilitation counselors must possess the necessary awareness, knowledge, and skills to practice their profession in an ethical, responsible, and competent manner with all consumers/clients (Rahimi, Rosenthal, & Chan, 2003). The challenge of cultural diversity and the need to incorporate professional multicultural rehabilitation competencies into our practice will ultimately determine the viability and survival of the rehabilitation counseling profession (Middleton et al., 1999). In general, it is important for counselors to have a general understanding of cultural values of their clients (Baruth & Manning, 1991). Culture is defined broadly (Middleton et al., 1996) to include demographic, ethnographic, and status variables (Pedersen, 1991) such as, race, ethnicity, class, affectional orientation, gender, and age (Harley, Feist-Price et al., 1996).

Bias can be predicated in many aspects of the vocational process including, but not limited to, testing and counselor biases. Although awareness and sensitivity to different values and beliefs, linguistic

patterns, socioeconomic levels, and unique cultural experiences are important, rehabilitation counselors' cognizance of the impact of their own assumptions, biases, and experiences on expectations of consumer assimilation and stereotyping is also important (Flowers, Griffin-Dixon et al., 1997). Counselors' biases against clients because of certain characteristics could negatively influence diagnostic impressions and decisions about eligibility determination, plan development, service provision, and rehabilitation outcomes for their clients (Rahimi, Rosenthal, & Chan, 2003). Racial and ethnic bias in particular has been shown to lead some practitioners to make invalid assumptions regarding clients who are members of diverse racial or ethnic groups (Sue, Arrendondo, & McDavis, 1992). In addition, culturally inappropriate tools may lead to misdiagnosis of problems, to inappropriate vocational plans, and to counseling failures (Westermeyer, 1987).

Independent Living and Evaluation

Carri George, Carla Lawson, Jeff Hughes, Vicki Hawes, and Mike Ward

Representatives of the Independent Living community in Oklahoma discussed how they evaluate the independent living skills of people with disabilities who are making the transition from an institution, such as a nursing home, to living in the community. Panelists described why their informal approach is empowering for consumers.

VEWAA, VECAP and CVE: Our Past, Present, and Future

Steven R. Sligar and Chad J. Betters

This interactive training session provided participants with a brief history of VEWAA, VECAP and the CVE and a report on the current status of each group. A discussion of

issues framed the group's concerns and a scenario building process was used to envision the future of our profession. Results of similar sessions held in North Carolina in fall 2009 will be presented. The issues discussed and scenarios developed will be presented to the leadership of VEWAA and VECAP.

The Single Tool Needed for a Transition Assessment is...A Trained Evaluator

Lisa Blakeney

Experienced Vocational Evaluators are frequently asked, "What Transition Assessment Tool do you use?" or "What is the best Transition Assessment Tool to use with high school students?" However, there is no one transition assessment tool that can provide a thorough Transition Assessment and individually meet the needs of all students. Instead, it takes a trained Vocational Evaluator to select the assessment tools and techniques to most effectively assess individual students' interests, learning style, achievement levels, cognitive ability, physical capabilities, assistive technology needs and perceived barriers to employment. The Evaluator then needs to be able to synthesize and interpret the information to aid in the development of transition assessment goals and plan. This session provided participants with an opportunity to learn the most effective techniques to conduct a transition assessment by incorporating informal and formal assessment tasks and activities to assist transitioning students with planning for their individual vocational future.

The Case for Using Two Interest Surveys: Research and Reasoning

Samuel Castiglione

While vocational evaluators endorse a best practice of including a client's stated,

manifest, and tested interests as part of career exploration, there has been less attention to some research already existing in the career development literature about discrepant results when a client takes more than one interest inventory. Sometimes the results are very discrepant. It raises the caution that career guidance based on a single interest inventory may start a client on a misleading path.

This presentation looked at interest inventories within the context of personality testing and looks at the different construction and intents among various inventories that can be a source of the discrepancies. It includes presentation of five years of interest inventory data from the presenter's cases as research and illustration. A bibliography of many prominent interest surveys and publication information also is included.

It makes the case for generally using two interest inventories (usually of different types) with a client along with the elaboration of stated and manifest interests, in order to generate a "composite career-code" such as a Holland-type and an estimation of a client's level of career development, for purposes of rehabilitative employment planning.

How I Traveled from Alabama to Oklahoma with my Vocational Evaluation Skills Intact and Figured Out How to Employ Myself in Private Practice (and you can too!)

Randall McDaniel

In this look at private practice in vocational evaluation, the emphasis focused on how evaluators could use vocational evaluation skills to develop a full time private practice or a part time effort to make extra money using the skills they may already have as a vocational evaluator. The sky is the limit on the amount of money you

can make and the amount of work you can do in your own private practice. Places of employment, referral sources, the type of work you would do, and how to get started were explored in this lighthearted practical session.

Ticket to Work: A Tool for Our Times

Sallie Rhodes and Joel Middleton

The NEW Ticket to Work program offers new opportunities to expand the scope of services and supports available to assist Social Security beneficiaries with disabilities who are interested in entering or re-entering the workforce. Administrative and regulatory improvements have made it easier and more profitable for Employment Networks (ENs) to participate in the Ticket program. A new Partnership Plus service delivery option encourages State Vocational Rehabilitation (VR) agencies and ENs to partner to ensure that beneficiaries have access to post-employment supports to help them maintain and advance in employment. As a vocational evaluator, the Ticket offers you another tool that beneficiaries can use to obtain employment-related services and supports.

Foundations of Practice: Why We Do What We Do

Randall S. McDaniel and Wayne T. Smith

Vocational evaluators/career assessment personnel often practice assessment procedures without thoughtful consideration as to the "why" behind what they do. As those procedures become codified into their practice, even less is asked about the "why" underlying the entire assessment and evaluators can lose perspective on individualized service as an empowering tool for their consumer. This presentation looked at models of theory of vocational

evaluation/career assessment practice starting with several influencing theories such as the Minnesota Theory of Work Adjustment and Maslow's Hierarchy of Needs to challenge participants to consider how their process fits into these well-accepted notions of work motivation. From there, the presentation will rapidly move into vocational evaluation theories. Included will be the 1972 Nadolsky's model, Field's VDARE method, and Toms Korn's integrated Dictionary of Occupational Titles (DOT) model. The Nadolsky model emphasizes the ordered steps of discovery evaluators take a consumer through in vocational evaluation to arrive at an ideal job recommendation while the Korn model works toward the matching of consumer interest (Occupational Group Arrangement) with their skills (Worker Trait Group) to arrive at a recommended DOT job area. The VDARE systematically looks at worker traits from previous employment to form the basis in the transferability of skills approach to job recommendations. Based on an integration of these approaches and his experience, the author has developed a theory of practice ($SO = (VI + VA) - FL$) that will be presented and explored for the first time at a national meeting. This formula stands for Suitable Occupation derives from a discovery of Vocational Interest added to Vocational Abilities subtracting Functional Limitations. This simple approach provides the structure for evaluators/assessment personnel to lay out their assessment process on an individualized basis for each consumer/student evaluated. It can be used with general or specific referral questions and with work experienced or not work-experienced consumers. The entire emphasis of the presentation will be in using these theories of practice to structure career evaluations so that the consumer gains the most information to empower them toward meaningful career directions and outcomes.

Writing for Professional Publication 101

Debra B. Homa, Carolyn R. Schmidt, and Juliet H. Fried

The field of vocational evaluation has a great many talented individuals working as vocational evaluator practitioners. These professionals have a wealth of knowledge and expertise in conducting a full range of vocational evaluation and assessment services for people with physical, mental and emotional disabilities. Oftentimes, vocational evaluators have a great deal of data at their fingertips by virtue of conducting actual evaluations and documenting the process, and they have practical ideas for serving clientele that need to be shared with other professionals in the field. However, much of this information never makes it to professional journals or books. In order for a professional field to continue to grow and be sustained, it must have a body of knowledge that is researched and disseminated in the literature. This session assisted practitioners in understanding the entire process of how to publish in a professional journal, and encourage and support those who wish to develop a manuscript.

National Career Development Association and VECAP: Professional Partners

Cheri Butler

Cheri Butler, current NCDA President-Elect discussed current NCDA initiatives and programs that could benefit VECAP members and how the two organizations can complement each other.

<http://www.ncda.org>

Expert Witness Testimony: A Secure Place

Ronald J. Spitznagel

The Certified Vocational Evaluator (CVE) has many and varied opportunities to perform what s/he has been trained to do. The Social Security Administration (SSA) contracts out to a variety of individuals whose work is basically in the domain of the CVE. This work is Expert Witness Testimony. The SSA has a two tiered-system for determining who has become disabled and cannot return to work or who can commence working at substantial gainful employment. On the first tier no expert witness testimony is needed. However, in the second tier when the person's case is transferred from the state Disability Determination Section to the federal level, this is where the need for Expert Witness Testimony arises.

To enlist as a vocational expert witness, an individual needs to contact the Regional SSA office and request the forms to fill out. These forms are governmental, involved, and intricate. If an individual is a CVE, then s/he generally will be confirmed as a vocational expert. Next, the person has to decide in which District s/he will be a contractor. The CVE needs to contact the District and let them know you are available.

The need for and the use of vocational expert witnesses are defined in the SSA regulations. However, not all states see the need nor do they use the expert witness in the same way. Even at the district level there is a diversity of action between and among the judges.

When a file is sent to the federal office from the state level, the judge reviews the file. S/he can grant disability at that time on the record or, as is true in most cases, a hearing is scheduled. The judge determines at this time if a vocational expert witness is needed. The clerk for the judge then calls on a rotating basis those vocational expert

witnesses. If the call comes to you, and you are available, the needed information will be given to you regarding time and place.

In addition, the clerk will mail you either a portion of the paper file that deals with the vocational aspect of the case or an electronic disk with this information on it. SSA is trying to transform to all-electronic files. The expert witness' task before the hearing is to develop a work history from the information sent by the court. The basic information of D.O.T. Title and # along with the SVP and the Strength rating/level needs to be noted. Some judges furnish their own forms for this.

When the hearing time arrives, the expert witness is seated in the court and listens to what transpires. It is during this time that the expert witness has to pay particular attention since the work history developed from court records may not match with what the claimant is saying in court.

The courtroom situation is probably the most important aspect of the expert witness' work. This was detailed at length in the presentation. After being declared an expert (and this is done each time in each hearing) the expert will present the work history to the court. The judge will then proceed with one or more hypotheticals. The expert responds to the hypothetical according to the questions the judge asks. If the expert indicates that a person can return to work but not necessarily past work, the judge will ask for examples from the national economy and always wants the numbers of existing jobs for each job given. The judge then allows the attorney or representative to ask questions of the expert.

[Go back](#)

PRESENTERS

Mike Ahlers, MMDS, CVS
Public Service Executive II
State of Kansas
VECAP Home Office
785-404-2105
mahlers@cox.net

Jeffrey Annis, M.S., CVE, ATP
Senior Rehabilitation Specialist
University of Wisconsin-Stout
Wisconsin
(715) 232-1164
annisj@uwstout.edu

Lisa Blakeney, M.A., CVE
Private Practitioner and Owner
Vocation Validation
Maryland
410-360-1818
lblakeney@cablespeed.com

Chad J. Betters, Ph.D., CRC, CDMS, CVE
Assistant Prof. of Rehab. Counseling
Winston-Salem State University
North Carolina
336-750-2941
bettersch@wssu.edu

Dr. Sharon Brown
Associate Professor
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma
877-466-2231
smbrown@lunet.edu

Danise Busic, Ed.S., CVE
Fairfax County Public Schools
BASES of Virginia, LLC
Virginia
888-823-8251
busicd@gwu.edu

Cheri Butler, MA, LPC, NCCC, MCC
Associate Director, Career Services
President Elect, National Career
Development Association
Texas
817-272-2942
cherib@uta.edu

Samuel Castiglione, Ed.D.
Career Assessment Specialist
Workforce & Technology Center
CAS Department
Maryland
410-554-9442
scastiglione@dors.state.md.us

Tiwanda Cox, M.S. in Rehab. Counseling
Student
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma

Janelle Ellis, M.A.
Assistive Technology Services
Fairfax County Public Schools
Virginia
jbellis@fcps.edu

Brenda Fitzgerald
Vocational Rehabilitation Program
Cherokee Nation
Oklahoma
Brenda-Fitzgerald@cherokee.org

Juliet H. Fried, Ed.D., CRC, CVE
Prof. of Human Rehabilitative Services
University of Northern Colorado
Colorado
970-351-1580
Juliet.fried@unco.edu

Carri George
Research Associate
University of Arkansas CURRENTS
Arkansas

501-623-7700, ext. 16
cgeorge@uacurrents.org

Helga Guthrie, RRP, CVE
Canadian Assessment, Vocational
Evaluation and Work Adjustment
(CAVEWAS)
VCCS Employment Services
Ontario
705-328-3649
hguthrie@careerservices.org

Vicki Hawes
Executive Director
Dynamic Independence
Oklahoma
918-335-1314
vhaws@dynamic-independence.org

Debra B. Homa, Ph.D, CRC, CVE
Associate Professor
University of Wisconsin Stout
Dept. of Rehabilitation & Counseling
Wisconsin
homad@uwstout.edu

Jeff Hughes
Executive Director
Progressive Independence
Oklahoma
405-366-3500
jhughes@progind.org

Dr. Craig Johnston
Vocational Consulting
Illinois
847-436-3413
Johnston-voc@sbcglobal.net

Anthony J. Langton, M.S., CVE
Pathfinder Associates
South Carolina
803-767-8043
tony@pathfinderassociates.net

Carla Lawson
Executive Director
Ability Resources, Inc.
Oklahoma
clawson@ability-resource.org
918-592-1235., ext. 102

Pam Leconte, Ed.D, CVE
Assistant Research Professor
The George Washington University
Washington DC
202-994-1534
pleconte@gwu.edu

Marsha Legg, M.A.
Director of WorkFirst
Humanim
Maryland
410-563-5150
mlegg@humanim.com

John W. Lui, Ph.D., CRC, CDMS
Executive Director
Stout Vocational Rehabilitation Institute
Wisconsin
715-232-2470
luij@uwstout.edu

Sylvia A. Marotta, Ph.D., ABPP
Graduate School of Education & Human
Development
The George Washington University
Washington DC
202-362-2776
syl@gwu.edu

Randall S. McDaniel, Ed.D., CRC
Distinguished Professor
Auburn University
Special Education, Rehabilitation/School
Psychology
Alabama
334-844-2076
mcdanrs@auburn.edu

Ashley McFall, M.S., CRC, CVE
Transition Facilitator
Pittsburgh Public Schools
Pennsylvania
412-323-4078
kmcfall1@pghboe.net

Joel Middleton
Account Manager
CESSI, Program Manager for Recruitment
and Outreach
Virginia
703-448-6155, ext. 223
jmiddleton@cessi.net

Terri Miller, M.Ed., CRC, LADC
Programs Field Representative
OK Dept. of Vocational Rehabilitation
Oklahoma
405-312-1713
tmiller@okdrs.gov

B.J. Nevels, M.S., CRC, CVE
Vocational Rehabilitation Counselor
Department of Veterans Affairs
Oklahoma
316-688-6842
Billy.Nevels@va.gov

Mike O'Brien, Ed.D., CRC, CVE
Director
Oklahoma Department of Rehabilitation
Services
Oklahoma
405-951-3469
mobrien@okdrs.gov

Karen Pell, Ph.D., CVE
VIA Consulting, LLC
Maryland
410-935-2724
kpell@viaconsultingllc.com

Sallie Rhodes
Ticket to Work Program Specialist

CESSI, Program Manager for Recruitment
and Outreach
Virginia
410-965-1309
Sallie.Rhodes@ssa.gov

Carolyn R. Schmidt, Ph.D.
Research Assistant Professor
KU School of Medicine-Wichita
Kansas
715-232-1113
schmidt3@kumc.edu

Nancy Scott, M.S., CVE
Pruden Center for Industry and Tech.
BASES of Virginia, LLC
Virginia
888-823-8251
nanscott@prudencenter.net

Fiyia Sicarr, M.S. in Rehab. Counseling
Student
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma

Steven R. Sligar, Ed.D., CVE
Assistant Prof., Dir. Graduate Program in
Vocational Evaluation
East Carolina University
Dept. of Rehabilitation Studies 4425
North Carolina
254-744-6293
sligars@ecu.edu

Frances Smith, Ed.D., CVE
Coordinator of Technology and Distance
Learning
VDOE Training and Tech. Assistance Ctr.
Virginia
804-827-1406
fgsmith@vcu.edu

Ronald J. Spitznagel, Ed.D.
Associate Professor Emeritus

Florida
352-338-0764
rspitzna@phhp.ufl.edu

Lashelle Tennyson, M.S. in Rehab.
Counseling Student
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma

William Turner, M.S. in Rehab.
Counseling Student
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma

Mike Ward
Executive Director
Oklahomans for Independent Living
Oklahoma
918-426-6220, Ext. 113
R-mike-ward@sbcglobal.net

Andre Washington, M.S., CRC
Instructor/Clinical Experienced Coord.
Langston University
Dept. of Rehabilitation Counseling and
Disability Studies
Oklahoma
405-521-1381
alwashington@lunet.edu

Shawn L. Zimmerman, M.S., CRC, CVE
Vocational Evaluator
Virginia Dept. of Rehabilitation Services
Virginia
571-244-8411
Shawn.Zimmerman@drs.virginia.gov

[Go back](#)



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Definition according to Bylaws:

Professional members shall be those individuals actively engaged in the practice of some aspect of vocational evaluation or work adjustment training. This shall include those individuals who are immediate supervisors, teachers, or researchers in the fields of vocational evaluation or work adjustment.

Benefits to Members:

Newsletters, Journals, discounted registration at Forum and other training events, one member/one vote voting privileges, eligible to hold office in VECAP

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2011 National Executive Council

President

Marsha Legg, M.A.
Director of WorkFirst
Humanim
1701 N. Gay Street
Baltimore, MD 21213
(410) 381.7171
mlegg@humanim.com

President-Elect

Kate Kaegi
Virginia Department of Rehabilitative Services
2930 West Broad Street, Suite 15
Richmond, VA 23230
804-367-9889
kathleen.kaegi@drs.virginia.gov

Immediate Past-President

Frances G. Smith, Ed.D., CVE
Coordinator of Technology and Distance Learning
Training & Technical Assistance Center
School of Education
Virginia Commonwealth University
10 E. Franklin St., Suite 200
Richmond, VA 23284
(804) 827.1406
fgsmith@vcu.edu

Treasurer

Jen Hemme, CVE
Vocational Evaluation Supervisor
Goodwill of Southwestern Pennsylvania
Robert S. Foltz Building
118 52nd Street
Pittsburgh, PA 15201
(412) 632.1875
jen.hemme@goodwillswpa.org

Secretary

Patricia McCarthy, M.Ed., CVE, LVE, CRP
Lead Vocational Evaluator
Virginia Dept. of Rehabilitative Services
5904 Old Richmond Hwy, Suite 410
Alexandria, VA 22303
(703) 586.2854
patricia.mccarthy@drs.virginia.gov

Journal Co-Editor

Carolyn R. Schmidt, Ph.D.
Research Assistant Professor
Office of Research
Department of Pediatrics
KU School of Medicine - Wichita
1010 N. Kansas, Wichita, KS 67214-3199
(316) 293-1810
cschmidt3@kumc.edu

Journal Co-Editor

Steven R. Sligar, Ed.D., CVE
Associate Professor Director Graduate Program in
Vocational Evaluation
East Carolina University
College of Allied Health Sciences
Department of Rehabilitation Studies
Health Sciences Building-Mail Stop 668
Greenville, NC 27858-4353
(252) 744-6293
sligars@ecu.edu

Managing Editor

Min Kim, M.S.
Managing Editor
Department of Rehabilitation Studies
Allied Health Building Mail Stop 668
Greenville, NC 27858
Phone: 252-744-6300
Fax: 252-744-6302
kimm09@ecu.edu

Standing Committee Coordinators

Education Coordinator

Shawn L. Zimmerman M.S., CRC, CVE
9309 Center Street, Suite 304
Manassas, VA 20110
(571) 244.8411
Shawn.Zimmerman@drs.virginia.gov

Education Coordinator

Debbie Veale
Virginia Department of Rehabilitative Services
Hampton North Office II
303 Butler Farm Rd., Suite 105
Hampton, VA 23666
757-865-3111
deborah.veale@drs.virginia.gov



Standing Committee Coordinators

Communications Coordinator

Catherine Burzio

Transition Coordinator
Parent Educational Advocacy Training Center
(PEATC)
11 Swan Avenue
Berryville, VA 22611
(540) 247-1888
burzio@peatc.org

Advocacy Co-Coordinator

Ashley McFall

Start On Success Transition Facilitator
Pittsburgh Public Schools
Program for Students with Exceptionalities
2140 Saw Mill Run Boulevard
Pittsburgh, PA 15210
(412) 323.4078
(412) 323.3992 (fax)
KMcfall1@pghboe.net

Standards Coordinator

Jean E. Johnson, Ed.D, CRC

Assistant Professor
Department of Rehabilitation Counseling and
Disability Studies
Langston University
4205 N. Lincoln Boulevard
Oklahoma City, OK 73105
(405) 962.1676
(405) 962.1621 (fax)
jejohnson@lunet.edu

Member Services Co-Coordinator

Amanda McCarthy, MS, CRC, CVE, LPC

Rehabilitation Counseling Clinical Faculty
354 Wirtz Hall
Northern Illinois University
DeKalb, IL 60115
(815) 753.1893
(815) 753.9123 fax
amccarthy@niu.edu

Member Services Co-Coordinator

Dedra Wilson

Department of Rehabilitative Services
Suite 205
1351 Hersberger Road
Roanoke, VA 24012
(540) 204.9743
(540) 776.2722 fax
Dedra.Wilson@drs.virginia.gov

Board Member at Large

Lisa Blakeney, MA, CVE

Vocation Validation
P.O. Box 1147
Pasadena, MD 21122-1147
(410) 360.1818
bla2@verizon.net

Board Member at Large

Judy Brookover

14307 N. Pennsylvania Ave., #B
Oklahoma City, OK 73134
405-748-7274
jbrookover1@gmail.com

Ad-Hoc Committee on Assistive Technology Chair

Janelle Bjorlie Ellis, MA, CVE

Integrated Assistive Technology (IAT)
Bethesda, MD
(301) 646.1478
jbgranger@gmail.com

Representative to CORE

Dr. Juliet H. Fried, CRC, CVE

Professor, Human Rehabilitative Services
University of Northern Colorado
School of Human Sciences
Gunter Hall, Room 1250
Campus Box 132
Greeley, CO 80639
(970) 351-1580 (direct)
(970) 351-1255 (fax)
juliet.fried@unco.edu

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**Vocational Evaluation and Career Assessment Professionals
5500 University Parkway / Room CE-120
San Bernardino, CA 92407**

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