CAREER PLANNING AND ADULT DEVELOPMENT JOURNAL

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CAREER ASSESSMENTS

Debra Osborn and Seth Hayden
Guest Editors

- Use of Career Attitudes and Strategies Inventory with Clients Post-Trauma
- Using the Strong Interest Inventory to Assist College Students
- Using O*NET in Career Counseling
- Putting Strengths to Work in Career Development and Transition
- The MBTI—a Case Study
- A Social Cognitive Perspective on Assessment in Career Counseling
- Narrative Assessment Tools for Career and Life Clarification
- Using the Career Thoughts Inventory in Practice
- Using the Self Directed Search in Practice
- Facilitating the Transition from School to Work with a Career Decision-Making Approach
- Integrating Assessments into the Career Decision-Making Conversation
- Multicultural Career Assessment: Practical Application
- Testing or Assessment: Choosing the Ethical Ideal
- Addressing the Connection Between Career and Mental Health Concerns: The Utilization of Career Assessments
- Assessing Aptitudes and YouScience: Enhancing Career Development for Learners of All Ages
- Understanding the Impact of Career Values on Career Satisfaction: Utilizing Card Sorts in Career Counseling
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Foreword

Looking Ahead with the Journal

The authors of the articles in this Career Assessments Special Issue of the Journal have been guided by Debra Osborn and Seth Hayden, of Florida State University and Wake Forest University, respectively. We sincerely thank our Guest Editors and the authors of these outstanding articles!

Here is what we have planned for future issues of the Journal:

**Book Reviews 2015**, with our Book Reviews Editor Maggi Kirkbride of San Diego, California.
Please contact Maggi [(619) 980-7854; e-mail: mkpayment@usa.net] if you would like to be a book reviewer, and also please suggest new books that you would like to review.

**Our Future in Work...and Life**, with Guest Editor Helen Harkness of the Dallas area of Texas.

**Corporate Career Development**, with co-Guest Editor Rich Feller of Colorado State University.

**Career Counseling Approaches with Clients Having Asperger’s Syndrome, Autism, ADHD, Dyslexia, or Learning Disability**, with Guest Editor Abiola Dipeulu of the University at Buffalo, The State University of New York.

**The Connection between Career and Mental Health**, with Guest Editors Seth Hayden of Wake Forest University and Debra Osborn of Florida State University.

**Job Search 6.0** with Guest Editor and our Newsletter Columnist Jack Chapman of the Chicagoland area.

**The Military Life: A Career Defending Our Nation.**
Guest Editor TBD.

**Book Reviews 2016**, with our Book Reviews Editor Maggi Kirkbride of San Diego, California.

Steven E. Beasley, Managing Editor
INTRODUCTION TO THIS ISSUE

Career assessments are a mainstay in the toolkit of today’s career practitioner. Many career development theories integrate career assessments into conceptualizing how career decisions are made and suggested career interventions. Through the use of career assessments, various issues related to their use have emerged. As guest editors, we are pleased to present this special issue of the Career Planning and Adult Development Journal focusing on the topic of career assessments.

The special issue is divided into three sections: Section 1: Review of Specific Assessments; Section 2: Theory-Related Career Assessments; and Section 3: Career Assessment Topics. Each of the articles includes a detailed case study that either highlights how a specific inventory might be used with a client (Section 1), demonstrates how the use of a career instrument can be guided through the lens of career theory (Section 2), or how to understand and address certain topics as they emerge when using career assessments with clients (Section 3). Our goal in this design was to provide career practitioners with practical applications with respect to career assessments.

In Section 1: Review of Specific Assessments, five different assessments are reviewed. Each has a description of the instrument purpose, psychometric properties, administration and interpretation procedures, and a case study that demonstrates how the instrument might be used. Canto begins this section with an introduction of the Career Attitudes and Strategies Inventory (CASI), a tool that explore barriers that clients may be facing as well as their readiness to make a career decision. In this article, she both describes and demonstrates how the CASI can be used with clients seeking career services who have also experienced trauma. Garis and Li provide a review of the Strong Interest Inventory (SII) and walk the reader through three stages of introducing the SII, interpreting the SII and determining next steps. Their case study is of an African American college sophomore male who is unhappy in his current major and wanting to make a change. Lara and Vess provide a review of the O*NET Interest Profiler in helping college students' initial choice of careers. In their case study, reflection, the Career Construction Interview, and O*NET assessment results are integrated. Peila-Shuster and Ligon examine the use of the Clifton StrengthsFinder (CSF) for an adult in career transition. In addition, they provide useful information on the challenges
and considerations about using the CSF with clients, and identify other potential uses of the assessment with other groups and in other contexts such as workshops. Roseman provides an overview of the Myers-Briggs Type Indicator (MBTI) and how it might be used in career counseling. Her case study is of a 54 year old woman who is interested in exploring encore careers. In the example, how one’s personality contributes to job satisfaction is explored through the use of this tool. While hundreds of specific career assessments exist and could have been included in this section, our hope was to provide a review of a sample of these instruments and through the case studies, demonstrate how they might be used by different counselors with various clientele.

Section 2: Theory-Related Career Assessments examines how career assessments might be presented in the context of a specific career theory. For three of the five studies (CIP, RIASEC, and PIC), the assessment presented is one that was designed specifically for the career theory. The remaining manuscripts show how existing assessments can be used to address theoretical constructs. Ezeofor and Lent describe how several assessments (Strong Interest Inventory, a modified Vocational Card Sort, work values, and skills assessment) provide key elements relevant to Social Cognitive Career Theory. The case study is of a Black male immigrant from Liberia who was considering changing majors. Franklin, Feller, and Yanar provide a description of how assessments can be used within the context of narrative and story-telling approaches. They introduce readers to CareerCycles, a comprehensive approach that includes a variety of tools to provide a narrative assessment. They present a case study of a 23 year old female desiring a career change towards work that was more fulfilling. Saunders presents the use of the Career Thoughts Inventory, a measure of dysfunctional career thinking, through the lens of Cognitive Information Processing Theory. Her case study is of a middle-aged Filipino female mother of two who has recently been separated from her spouse and is experiencing self-doubt as well as uncertainty. Bullock-Yowell and Mathis provide a review of the Self-Directed Search (SDS) and RIASEC theory. They demonstrate how the SDS can enhance a client’s career decision-making process through a case example of an army veteran desiring to identify his interests and skills. Levin and Gati review several assessments that were developed to inform the PIC (Prescreening, In-depth exploration, and Choice) Model, a career decision-making approach. They walk us through this model via a case of a college female junior who was needing to make a commitment to a career path.

The final section, Section 3: Career Assessment Topics, includes seven articles on topics relevant to career assessment. Osborn, Finklea and
Belle begin this section with an overview of how to integrate career assessments into the career decision making process, including two different models of integration. Hayden and Kronholz cover the topic of supervising trainees in their use of career assessments. In their manuscript, they address competencies specific to the use of career assessments, the various levels of different assessments, and strategies supervisors can use to help their trainees develop those competencies. Evans and Olden provide a practical application of multicultural career assessment through several case studies, walking the reader through each stage of the Culturally Appropriate Career Assessment Model (CACAM). Anderson, Peli-Shuster, Carlson and Szamos highlight the difference between testing and assessment through the lens of ethics and a case study fraught with potential ethical dilemmas. Sangganjanavanich and Headley explore the crossover between career and mental health issues, and how career assessments might be useful when this occurs. Feller, Hardin, Cunningham, Whichard, and Long summarize the literature with respect to assessing career aptitudes, and present “YouScience,” a new career assessment tool focusing on linking potential careers through aptitude assessment. In the final article, Esquibel, Nicholson, and Murdock describe how career practitioners can help clients identify and prioritize their values through the use of card sorts.

In summary, the aim of this special edition was to provide a comprehensive look at career assessments that would be useful to practitioners. Thus, inventories commonly used by career practitioners were described and examples provided of how to administer and interpret these various tools. In addition, because theory should inform practice, several current career theories and accompanying assessments were included, with demonstrations of how assessment fits into the theoretical perspective. Finally, key issues associated with career assessments were discussed in the final section. It is our hope that the information provided in this special edition will help strengthen career practitioners’ toolkits, especially in the area of career assessments.
Deb Osborn is an Associate Professor in the Educational Psychology and Learning Systems Department at the Florida State University, and a Nationally Certified Counselor. She is a Fellow and recent (2012-2013) Past President of the National Career Development Association, and a fellow of the American Counseling Association (2014). She earned the PhD in Combined Counseling Psychology and School Psychology at Florida State University in 1998. She has been a counselor educator, and member of NCDA and ACA for over 18 years. Her program of research includes three foci, including: (a) the design and use of technology in counseling, (b) innovation and effectiveness in counselor education; and (c) the design and use of assessments in career services. She has authored 25 peer-reviewed articles, 7 books, 8 book chapters, and over 55 national presentations on these topics. As a counselor educator, she is passionate about teaching career development, and is the author of Teaching Career Development: A Primer for Instructors and Presenters (2008). She also was the guest editor of a special issue of the Career Planning and Adult Development Journal, entitled The Education of Career Development Practitioners (2009).

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Abstract
The Career Attitudes and Strategies Inventory (CASI; Holland & Gottfredson, 1994 a) is a useful instrument in exploring clients’ readiness and barriers to career change. Interpretation of CASI results with clients may help both the counselor and the client better understand clients’ self-talk and obstacles that hinder the process of thought to action. This paper offers a case study to explore the use of the CASI with a trauma-tized client, specifically one with a history of intimate partner violence. Within the case study context, an understanding of how trauma history can affect career exploration is offered.

The Case of Sarah
Sarah, a 32 year old Caucasian female, initiated counseling after terminating a relationship with her partner of four years – a relationship in which she had experienced repeated physical and emotional abuse. Sarah has two children, ages 10 and 6, who are living with her at the home of her parents where she relocated after the relationship ended. Her parents’ home is located in a nearby city. The father of the children has not been involved and does not provide financial support. Sarah currently works part-time as a server at a local restaurant, but expressed a desire for something “better for her and her family.”

Sarah’s counselor has developed a treatment plan with Sarah with the goals of crisis stabilization, processing the abusive relationship, and exploring future goals. As part of the treatment objectives, the counselor referred Sarah to a local career counselor to explore alternate employment options to increase her financial security, sense of independence, self-concept, and overall well-being. Sarah was motivated to attend and explore the potential career options available to her beyond her current employment. Recalling childhood dreams of working in the medical field or with animals, Sarah wanted to explore options in these areas specifically. She currently has a high school diploma and has taken 12 credit...
hours at a local community college before withdrawing at the insistence of her ex-partner two years ago.

**Integrated Assessment**

**Interview.** Sarah arrived for her initial meeting to meet with Meredith, a career counselor. Sarah indicated that she had been referred by her mental health counselor. She provided the career counselor with the following information: she was recently separated from her partner, has some college credit toward her Associate of Arts degree, is currently working as a server, and wants to explore career options in the medical or veterinary fields. She also disclosed that she is receiving some financial assistance from her parents for her and her two children.

Meredith, Sarah’s career counselor, interviews her briefly (approximately 20 minutes) to assess Sarah’s needs and readiness for career exploration. Given Sarah’s level of education and motivation, Meredith assigns Sarah an individualized career learning plan (i.e., treatment plan) that included two initial assessments: the Self-Directed Search (SDS; Holland, 2013a) (to be completed at home) and the Career Attitudes and Strategies Inventory (CASI; Holland & Gottfredson, 1994a) to be completed during the next session. With Sarah, Meredith intended to integrate the information gleaned from the interview and assessment measures to form an integrated profile of Sarah’s career exploration needs, personal resources, and plan for career change.

**SDS**

The SDS is an assessment tool that can be self-administered or used in conjunction with more formal career counseling (Holland & Raylman, 1986). This measure assesses one’s profile of interests and competencies with the goal of matching that profile to potential careers or occupations that are characteristic of those interests and skills (Holland, 2013b).

Meredith initiated the assessment process with the SDS. Meredith introduced the SDS to Sarah as a *career decision-making activity* (Holland & Messer, 2013, p.19) to help Sarah explore an overall picture of her interests, competencies, and career matches. Meredith advised Sarah not to *over-think* items, but to simply answer them according to her beliefs about her interests and skills in each area. Afterwards, she and Sarah would re-convene to decide on any additional assessments. Meredith scheduled a follow-up session with Sarah for the end of the week to review results of the SDS. Sarah arrived and expressed increasing interest in her career exploration. Meredith praised Sarah’s efforts and eagerness and asked to review the results of the SDS with Sarah. Results of this assessment indicated that Sarah’s interests and skills were categorized under the Holland occupational code of RSI (Realistic, Social, Inves-
tigative). According to *Occupation Finder* (Holland, 2013c), the RIC code is associated with professions in the medical/veterinary fields (e.g., veterinary assistant, emergency medical technician, etc.). Sarah’s affect brightened further and she expressed enthusiasm regarding the results of this individual assessment. Sarah was particularly excited that the veterinary assistant occupation could be a viable option based upon her expressed interests. In fact, Sarah had indicated this occupation as one of her aspirations on the SDS and disclosed to Meredith she had always dreamed of working with animals.

**CASI**

Meredith then provided Sarah with the CASI instrument. Specifically, Meredith was seeking to determine the likelihood that Sarah would, in fact, be likely to change occupations and pursue new career options (Holland & Gottfredson, 1994). Thus, while the SDS looked at Sarah’s overall congruence of her self-assessment of interests, personality and competencies with the occupations of interest, the CASI was deemed particularly useful in identifying areas that posed particular obstacles to career change. Additionally, by examining and discussing with clients both overall results and responses to individual items on the CASI, additional areas for client growth and development can be identified. Specifically, as in the case of Sarah’s trauma history, exploring both aggregated results and her responses to individual items was deemed useful to uncover the effect of that history as well as other client characteristics that could affect job performance and satisfaction (e.g., Croteau & Thiel, 1993). As noted by Holland and Gottfredson (1994), authors of the CASI, the instrument is intended to survey the experiences, attitudes, barriers, and strategies of clients that impact career change or stability. Specifically, the CASI is a 130-item multiple choice inventory that can be “self-scored, self-profiled, and self-interpreted” (Holland & Gottfredson, 1994, p. 3), but may be more useful to clients if interpreted with a career counselor (Holland & Gottfredson, 1994). Responses to items are calculated and profiled to produce T-scores across nine domains: Job Satisfaction, Work Involvement, Skill Development, Dominant Style, Career Worries, Interpersonal Abuse, Family Commitment, Risk-Taking Style, and Geographical Barriers. Typically the instrument takes about 35 minutes to complete and is generally regarded as a reliable and valid instrument with alpha coefficients ranging from .76 - .92, test-retest coefficient ranging from .66 - .94, and high correlations with of CASI Job Satisfaction scale with the Hoppock Job Satisfaction and positive disposition (Holland & Gottfredson, 1994). Meredith introduced the CASI to Sarah as an additional measure that they would use together to help find ways for Sarah to achieve her goals of changing careers. Meredith explained that the CASI often helped clients to pinpoint specific issues
that may hinder a successful transition to a new career (Lowman, 1993). Together, they would then review the results and discuss any additional objectives that may be added to Sarah’s individual learning plan based on the results. Meredith then directed Sarah back to a nearby desk to complete the CASI.

Meredith allowed Sarah to complete the instrument independently but remained nearby for questions. She observed Sarah to appear very thoughtful when completing the CASI. Meredith noticed that Sarah seemed to pause over several items on the measure and, at times, erased her answer and filled in a new answer. Meredith made a mental note to ask Sarah about her approach to the task, suspecting that this responding behavior may be indicative of potential negative self-talk. In total, completion of the CASI took Sarah approximately 45 minutes given her tendency to hesitate, respond, and re-respond to items.

When Sarah subsequently met with Meredith to score and process the results of the CASI assessment, Sarah appeared conflicted. Meredith first asked Sarah to comment on how it felt completing the assessment. Sarah indicated that she was having a hard time deciding whether to fill it out based on how she feels now at the current moment or how she has felt over the last few years. This statement allowed Meredith to inquire what had changed recently. Sarah confided that she had recently split up from an abusive partner and that she was still processing with her regular counselor the effects of that relationship. Sarah stated that she is learning to grow as an individual apart from that punitive relationship. Meredith explained that this could, in fact, affect the interpretation of the results in that some identified obstacles to career change and endorsements of negative thoughts may reflect the effect of that relationship and may improve over time as Sarah continues her work with her regular counselor. Thus, understanding Sarah’s personal trauma history was helpful in understanding Sarah’s overall career outlook. Sarah confirmed this with Meredith, informing her that while she is growing and very interested in new opportunities, she does still feel weighed down by things her ex-partner had said to her over the years, often belittling and demeaning her abilities and goals. Meredith used knowledge of the relationship to help her understand and interpret the CASI results with Sarah. Furthermore, Meredith suggested that it may be helpful to communicate with Sarah’s community counselor. Sarah agreed and signed a Release of Information document to facilitate communication between counselors. The CASI instrument was scored and interpreted by Meredith using the standard assessment procedures provided in the instrument’s scoring manual (Holland & Gottfredson, 1994b). While the instrument is intended to be self-administered, self-scored, and self-interpreted (Holland & Gottfred-
Meredith proceeded with scoring and interpreting the profile along with Sarah to open up additional opportunities for disclosure and discussion with the client as they occurred. Meredith scored the responses and plotted the results on the provided Profile Sheet which provides an excellent visual aid for understanding the client’s CASI results, both for the clinician and the client. The results profile for Sarah’s CASI assessment is depicted in Figure 1 [see Appendix].

When reviewing results of the CASI, clinicians are advised to use the information holistically with additional information gleaned from the client in interviews and related measures (Holland & Gottfredson, 1994b). Meredith’s first impression when looking at the profile sheet for Sarah’s CASI assessment is that six of the nine scale scores are beyond the typical middle range (T scores of 40-60), indicating extremes: Skill Development, Dominant Style, Career Worries, Family Commitment, Risk-Taking Style, and Geographic Barriers. Only three of the scale scores fell within the typical range: Job Satisfaction, Work Involvement, and Interpersonal Abuse. Meredith used a highlighter to outline the box of the typical middle range (T scores of 40-60) to assist Sarah in visually interpreting the findings. Meredith explained that the typical range is where one’s score would typically fall when not facing critical concerns in those domains. Meredith did not initially explain normative samples to Sarah but was prepared to do so if asked.

Sarah’s first reaction was disappointment. Meredith inquired further and Sarah stated, “so I’m really messed up, huh?” Meredith explained that the CASI was not a measure used to diagnose anyone with psychological problems, but was simply useful in helping to identify areas that could be explored further to help clients understand obstacles to job satisfaction and possibly a career change (or change in jobs within the same career path). Meredith reported that Sarah’s results on the SDS indicated that perhaps a career change would be a possibility given Sarah’s interests and that the CASI helps them both to further understand what may need to be addressed in order to make that transition more successful. Meredith gently suggested that they discuss each individual domain in turn and then find connections between domains and Sarah’s own experiences and assessment of her situation.

[The scale description information below is derived from the descriptions provided in the CASI manual (Holland & Gottfredson, 1994).]

**Job Satisfaction.**

Sarah’s raw score of 64 in the Job Satisfaction domain fell within the normal or typical range with an approximate T score of 53. This domain assesses clients’ sense of stability and willingness to change jobs. Meredith referenced back to the CASI Interpretive summary and placed an
X in the box of the middle column where Sarah’s raw score fell and read the description of her score aloud to Sarah. Meredith stated, “so your score of 64 in the area of Job Satisfaction falls in the middle or typical range. This score indicates that [and then reads from the CASI Interpretive Summary] ‘you are generally satisfied but are sometimes aggravated by your job or work situation. You may think of change occasionally’ [Holland & Gottfredson, 1994c].” Meredith then asked Sarah, “How do you think that fits with your situation?” Sarah replied, “yes, that’s about right – I’m okay with my job. I want to do something else like we talked about, but this job has gotten me through the past several years and has helped me when things weren’t okay at home. It [the job] was kind of a life-line for me. So I don’t hate it, but I’m ready to move on I think.”

Work Involvement.
Meredith nodded and moved ahead with the next domain – Work Involvement. This domain assesses clients’ dedication to an occupation or career, specifically how much time is spent working or thinking about work. In this domain, Sarah again scored within the typical range with an approximate T score of 52. In reading the description of this domain, Sarah agreed that she is involved in her job and likes working, but that she has her children at home that she feels need her also. Sarah wondered aloud if that was typical of many people. Meredith reassured Sarah that her score in this domain fell within the typical range, suggesting that many people attempt to balance work responsibilities with family and/or home responsibilities.

Skill Development. This domain assesses clients’ intent or desires to build and develop skills. Meredith noted that Sarah’s score in this domain (approximate T score of <20) was definitely lower than scores in the typical range, not unusual for clients with less education (Holland & Gottfredson, 1994). Meredith began by asking Sarah to read the description that followed for that score and to comment on what Sarah thought about it. Sarah read the description and agreed that she did not necessarily seek out additional ways of developing her skill set or improving her performance. Sarah stated that she was a good server, had many years of experience and “made pretty good money”. She told Meredith that at one point she tried taking classes at a local community college. However, with the demands of raising the children when they were younger and the frequent disparaging and forbidding comments of her ex-partner, Sarah lost hope. She stated, “I just didn’t push it any further.” Sarah indicated that the abuse she experienced in the relationship just took “everything out of her” and she stated that she just did not think she “was worth it.” Thus, the low score in this domain appeared to reflect more clearly the effects of that abusive relationship than in the domains
reviewed above. Meredith made efforts to listen carefully and then fully praise Sarah with how far she has come by ending that destructive relationship and seeking out resources and support to allow her to grow now.

**Dominant Style.**

Meredith turned back to the CASI Profile Sheet and noted to Sarah that her score in the domain of Dominant Style was similarly low (approximate T score of 21). This domain assesses clients’ *take charge* approach to work. Per Meredith, this score suggested that Sarah may feel more comfortable following directions and expectations rather than leading or trying to influence others. Sarah agreed and stated that “I just try to keep my head down and do my job – at work and in life. I don’t try to get into other peoples’ business and I don’t particularly like other people asking me questions about me or my life.” Meredith gave a slight head nod and used silence to encourage more reflection. Sarah continued, “I think I was like that even before my relationship with my ex though. I have always been like that really – even with my kids’ father and on other jobs. I just want to know what I need to do and do it well. I like people and I care about others, I just don’t try to intrude.” Meredith noted that this tendency was not uncommon for individuals who have experienced intimate partner violence.

Meredith asked Sarah how she thought a low dominant style may play out in a different occupation such as a veterinary assistant and Sarah indicated that she was not sure. Meredith suggested that it may be helpful to talk with a couple veterinary assistants, to ask them about aspects of the job they find interesting and difficult. For example, Sarah could ask any questions she wanted to know about daily duties and could ask about whether things like leadership were a requisite to be successful in the position. Sarah liked that idea and Meredith offered Sarah some paper and pen to make notes of that question and any others she might like to ask a veterinary assistant as they continued talking.

**Career Worries.** In the domain of Career Worries, Sarah scored particularly high when compared to others (approximate T score of 72). Sarah read the description of those that score high in this domain, that they typically feel there are many obstacles that interfere with career change. She told Meredith that she had changed her answer several times on items in this section of the CASI, unsure if she should be answering it on how she has felt in the past or how she is currently feeling. Meredith asked Sarah to explain further. Sarah reported that although her ex-partner was not happy with her work situation, often accusing Sarah of being romantically involved with other employees or customers, her ex nonetheless seemed to understand that the money was needed for their financial support (both of him and the family). It was a frequent point of
contention in the relationship, but one that had not resulted in him insist-
ing that she quit.

Sarah continued confirming that the description seemed accurate – that
she did often worry about her job, her occupational outlook, the fam-
ily’s financial security, and her ability to do anything different. Meredith
referenced Sarah back to the individual items in this domain to discuss.
Sarah agreed that while she did often feel tense or have absences, this
was often due to children being sick or hiding marks that her ex-partner
had left on her. However, Sarah also stated that having since ended the
relationship and relocating to her parents’ home with the children that she
feels less worried and more hopeful overall. Sarah stated that she feels
like she and her children could tolerate an occupation change more so
now, even if that meant attending community college. Looking again at
individual items, Sarah said that she’s less “touchy” and insecure at work
now than she was before when she was in that relationship. Meredith
again praised Sarah for her resilience and determination to heal and grow
and that her parents were indeed supportive and encouraging. Sarah said
that although her parents tended to talk more about the medical field that
Sarah was more interested in working with animals since animals “seem
easier to work with than people”.

**Interpersonal Abuse.** Sarah’s score in the next domain, Interpersonal
Abuse, fell within the typical range (approximate T score of 49). This
domain assesses clients’ history with offensive language or harassing be-
havior in the workplace. Meredith referenced the description of this type
of score in the CASI Interpretive Summary and sought Sarah’s feedback.
Again, Sarah agreed. Sarah said that overall she feels like she’s treated
fairly at work, “almost like a real person”. That although there were
certainly jerks that she would have to serve, that nothing really compared
to how she was treated in her prior relationship. In fact, Sarah indicated
that she felt more highly regarded or respected at work than in her prior
relationship. Furthermore, since the breakup, Sarah has felt even more
empowered at work and the occasional indecent comments have subsided
further still. Meredith again praised Sarah’s growth in this area.

**Family Commitment.** In the domain of Family Commitment, Sarah
scored particularly high relative to the norming sample (approximate T
score of 78). This domain assesses clients’ experiences in managing dual
roles of career and family. Sarah and Meredith reviewed the items in this
section on the CASI measure and discussed the items that Sarah pointed
out were particularly like or unlike her. Sarah said that due to having
children that she simply was not able to consistently put work first,
occasionally a sore spot with her managers in the past. Sarah explained
that there were children’s illnesses and injuries to deal with. Sarah indi-
cated to Meredith a general sense of guilt that she had not been able to spend more time with her children or protect them more from occasionally witnessing her ex-partner’s verbal abuse of her. Meredith inquired if the ex-partner had ever hurt the children. Sarah reported that although he would make disparaging comments in front of the children to her that he never hurt her in front of them or hurt them. Sarah stated, *We’ve [her and her children] just already lost so much, I’m not willing to let my job or career goals get in the way of being a better mom to my kids, especially now that we have my parents’ help and I don’t have to worry about bills and food so much anymore.*

**Risk-Taking Style.** With regard to Sarah’s willingness to take risks in her job and personal life, Sarah’s score in the Risk-Taking Style domain indicated that she may be particularly risk averse (approximate T score of 22). Meredith asked Sarah if she described herself as *cautious and careful* and if she preferred predictability at work. Sarah replied yes. Sarah told Meredith she just did not see herself as the type of person that wants an unpredictable job or unpredictable paycheck. According to Sarah, she has had all the unpredictability she could want and was exhausted trying to always anticipate potential explosive behaviors in her ex-partner. Here again Sarah reiterated that she just wants to “put my head down and do my job”.

**Geographical Barriers.** Lastly, Meredith reported to Sarah that she scored high in the Geographical Barriers domain (approximate T score of 75), which assesses clients’ willingness or feelings about relocating for a new career. Sarah stated that she had no desire to move for the purpose of a job at this point. Sarah reported that she moved in just recently with her parents and that it seemed to be working very well for the moment. She wanted to find the occupation that suited her and if it required college courses that she was going to need her parents at home to help take care of the children while she worked and went to school. Meredith wondered aloud to Sarah that perhaps her score in the Geographical Barriers domain related somehow to her prior scores in the Family Commitment and Risk-Taking Style domains. Sarah agreed and said that the items in those sections did seem to all be related in some way to her current situation of having just ended the abusive relationship.

**Summation**
Meredith paused after finishing reviewing the results of the CASI with Sarah and asked Sarah what she thought she might have learned about herself from taking these measures. Sarah was thoughtful for a bit and then replied that she can see now how far along she has come in moving forward in her life, for herself and for her children. Meredith used minimal encouragers allowing Sarah to continue. Sarah stated that she can
see how her destructive relationship has held her back from achieving her goals. As she was talking, Sarah’s affect was somewhat depressed. When Meredith asked her about it Sarah said that she was sad that she spent so much time in that relationship.

Meredith again praised Sarah on all the progress she has made and asked Sarah what positive ideas has she gleaned from this process. Sarah agreed that she really has “come a long way” and that while she felt many of the answers she reported were typical of how she was feeling in the past, that she could already sense that some of her thoughts, as reported in the CASI measure, have begun to change for the better within the last couple weeks. Sarah offered that if she took the CASI again in a few months, reflecting only on the time since the separation, that she could foresee a much brighter outcome with more responses falling within that highlighted typical range. Meredith agreed.

Meredith and Sarah concurrently worked on identifying a couple tasks for her individual learning plan as a result of the assessment outcomes. From the SDS, Meredith recommended that Sarah talk with a current veterinary assistant to ask more questions about the position. Meredith also suggested that Sarah research the available programs for veterinary assistants available in the local area using the resources within the career library.

From the CASI assessment results, Meredith was particularly struck with Sarah’s growing sense of optimism. Meredith asked Sarah to consider journaling about what she has learned about herself from this experience. Meredith asked Sarah to focus in her journal on the hopeful thoughts she had for her future with regard to her changing occupations and supporting her family. With regard to Sarah’s particularly high and low scores, many of the issues that were raised to explain those scores (i.e., effects of the interpersonal violence) were being addressed in Sarah’s community counseling. However, Sarah’s atypical skill development score was possibly a point of focus for Meredith. Meredith asked Sarah to report back on what she learns from researching educational programs for veterinary assistants in the local area. Meredith would also be looking into this to serve as a resource herself for Sarah. Meredith learned much about Sarah from the results of the CASI, including a better understanding Sarah’s self-talk and the particular obstacles she faced. While not an explicit goal on Sarah’s individual learning plan (i.e., treatment plan), the process of talking through the results were critical to the development of the therapeutic understanding of the case and the ways in which Meredith as the counselor could support Sarah’s growth and processing obstacles to career change.

In conclusion, Meredith provided Sarah with some guidance on where to
find the additional information she needed within the career library and offered to meet with her again to follow-up. Sarah scheduled a follow-up appointment for two weeks later to accommodate her work and family schedule. Sarah thanked Meredith and reported that she would be talking with her community counselor about her positive experience with career counseling, specifically the information she learned from the assessments.

Integrating the information gleaned from the initial interview, the SDS, the CASI, and the follow-up questions allowed Meredith to more fully understand Sarah and her current situation to provide her with more effective and efficient career exploration assistance, given her particular trauma history with intimate partner violence.

Considerations
Counselors using assessment measures are required to be trained in the administration, scoring, and interpretation of those measures (American Counseling Association, 2014). Similarly, measures tend to be more useful when used in thoughtful combination with other measures and with effective interviewing of clients. The CASI is particularly well-suited to highlight issues that may be hindering clients from progressing from thought to action in their career development. The richness of information available to the client and counselor as a result of using the CASI is beneficial in both community counseling and career counseling center settings. In the case study provided herein, barriers to career change were more easily understood in the context of the client’s past history of trauma, particularly intimate partner violence, when using the CASI instrument. While many of the domain scores were well beyond the typical range, reviewing both the domain descriptions and individual items allowed the client and counselor the opportunity to process past experiences and negative self-talk. Similarly, the discussion of domains and items allowed the counselor to provide the needed praise and encouragement toward continued growth for the client.

Cautions
The CASI instrument is simple to use with clients from diverse backgrounds and educational experiences. However, while the CASI instrument can be self-administered, scored, and interpreted, it is not recommended to simply distribute the instrument to clients without discussion. As exemplified in this case study, the use of the CASI in an interactive manner between counselor and client helps to contextualize clients’ reasons for endorsing items. In this case study, that interactive discussion helped the counselor to understand the effect of prior traumatization on the client’s thoughts and attitudes. As was demonstrated in this case study, the discussion of the client’s history with intimate partner violence
provided the counselor with opportunities to praise, encourage, and identify treatment objectives to promote the client’s growth and development. More exploration into how this instrument could be used with clients with diverse trauma history is encouraged.

References


APPENDIX

Figure 1. Sarah’s CASI profile sheet
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Angela Canto, PhD, is an Assistant Professor in the Psychological and Counseling Services program area within the College of Education at Florida State University. She earned the B.A. at the University of North Florida in 1997. She worked as a targeted case manager and contracted behavior specialist prior to returning to graduate school. She earned the PhD in the Combined Doctoral Program in Counseling Psychology and School Psychology at Florida State University in 2006. She completed her predoctoral internship at the University of Florida – Shands Jacksonville Department of Surgery, Division of Trauma/Critical Care and the Duval County Public Schools. She completed a clinical postdoctoral fellowship at University of Florida – Shands Jacksonville. She accepted a faculty position at Florida State University in 2008. Her program of research and clinical focus involves working with youth and families affected by trauma and crisis. She has served as a consultant to the Florida Department of Children and Families foster care system and was awarded the Early Career Scholar Research Collaboration Award by the National Association of School Psychologists. Her publication record includes 13 peer-reviewed articles and one book chapter.

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USING the STRONG INTEREST INVENTORY to ASSIST COLLEGE STUDENTS with their CAREER DECISIONS
by Jeff W. Garis and Yaoshan Ivy Li

A triangulation of three general ingredients of individual career counseling include: (a) Process: the counseling relationship, the process of reflecting and considering the client’s internal information, and the decision-making process, (b) Information: external academic and career information, and (c) Assessment: internal client information regarding personality, interests, values and skills obtained via assessment measures. The SII represents a tool to gather client measured interests, has been regularly updated and continues to be one of the most scientifically sound, thoroughly researched and widely used interest inventories (Leierer, Strohmer, Blackwell, Thompson & Donnay, 2008). Since its creation in 1927, The Strong Interest Inventory (SII) has enjoyed widespread use as an assessment tool supporting college student career counseling (Donnay, Morris, Schaubhut & Thompson, 2005).

This article illustrates a case of a college student facing academic and career indecision who is seeking career counseling at a university career center. Specifically, we address the use of the SII with this client and consider introduction of the assessment, results, interpretation, next steps and reflections from the assessment.

The Case of Fred
Fred is a 19-year-old African American male in his sophomore year. He is currently majoring in business, but is unsure if business is the best option for him. Fred suffers from a relatively low GPA (lower than 2.5 but not on any academic probation) and doesn’t enjoy most of his classes in business. According to Fred, the only reason he entered business in the first place is that the career opportunities in business “sounded more promising than other majors.” Fred describes himself as a very organized person who attends to detail. He enjoys leading and helping people, but does not know much about what majors fit with his interests. Fred is seeking individual career counseling at a large university career center. He reports that he is well-adjusted personally/socially and generally is
enjoying the college experience, but choosing a major and clarifying resulting career plans are his primary concerns.

**Selecting the SII**
As with any assessment, a number of factors should be considered when introducing the use of the SII with clients including: (a) career maturity and locus of control, (b) level of career decidedness, (c) multicultural issues and (d) psychometric properties

**Career maturity and locus of control.**
Before introducing any assessment, the career counselor (CP) should consider the client’s level of career maturity (Super, 1955). Savickas (1984) uses the term career maturity to address the individual’s readiness to make informed, age-appropriate career decisions and cope with career development tasks. For example, a college student who is in the fantasy stage of career development (Ginzberg, Ginzburg, Axelrod, and Herma, 1951) and unable to consider realistic internal attributes such as interests and skills may not be ready to consider additional internal information acquired from assessment measures. The client’s locus of control in decision making is also associated with career maturity. For example, Rotter (1966) considered the extent to which clients demonstrate internal or external locus of control. Clients with an external locus of control who are looking for external “answers” or who are more concretized in decision making may be at risk in considering external data via assessment measures. Lease (2004) found that college students with external career locus of control, regardless of race, struggle with career decision making. He suggests that interventions focusing on perceptions of control and behaviors that increase control would be beneficial for the decision making of students with high external control. Conversely, Duffy (2010) also found that college students who generally feel control over their lives may perceive themselves as more adaptable in their careers. It is possible that those with a greater sense of personal control may proactively adjust themselves to fit work expectations, which results in easier navigation of the world of work. During the initial career counseling session, Fred demonstrated considerable sophistication and sense of personal control and responsibility for making career choices. For example, Fred noted “that he knew that there would not be any easy answers to his career decision and at the end of the day, he is the one who has to choose a major and career and live with his choices.”

**Career decidedness.**
Indecision has negative effects on college student persistence, academic performance and timely degree completion (Essig & Kelly, 2013). Measures such as the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, and Saunders, 1996). have been developed to assess the
degree of career decision making difficulty. Fred completed the CTI as part of the career counseling intake process and his total score as well as subscale scores on Decision Making Confusion, Commitment Anxiety and External Conflict were below T-scores of 50 indicating a relatively positive approach to the career decision-making process.

**Multicultural considerations.**

As with any clients, multicultural considerations should be addressed throughout the counseling process. Leong & Flores (2013) noted that it is essential for career counselors to take into account of the client’s cultural context when conceptualizing the client’s career concerns, conducting and interpreting assessment, as well as helping them develop career plans. Taking into account client’s cultural context involves an assessment of individual and cultural factors that are relevant to the client’s career development (Leong & Flores, 2013). Fouad & Mohler (2004) reviewed past studies and concluded that the interest structure and the occupation predictability of SII are similar across individuals regardless of their racial/ethnic background.

**Psychometric Properties.**

The Strong has enjoyed relatively high levels of reliability and solid validity in measuring career interests across the life span. Donnay and colleagues (2005) reported internal consistency of .91 or higher for all six General Occupational Themes. Cronbach alphas for the Basic Interest Scales ranged from .76 to .91 in Bailey and colleagues’ study (2008); and .82-.87 for the Personal Style Scales Preferences in Donnay and colleagues’ study (2005). Test-retest reliability of the Basic Interest Scales ranged from .74 to .93, .71 to .93 for the Occupational Scales, and .70 to .91 for the Personal Style Scales Preferences (Donnay et al., 2005). As for validity evidence, there are extensive support for the General Occupational Themes (for a review, see Bailey et al., 2008) as well as concurrent and construct validity of the Basic Interest Scales (Donnay et al., 2005). Occupational Scales and Personal Style Scales Preferences were also shown to have construct, concurrent, discriminant, and predictive validity (for a review, see Donnay et al., 2005). Similar to other career interest assessments, evidence of predictive validity for Strong is relatively limited and clients must be cautioned to treat the results as new information and consider them with expressed interests as well as other life experiences. The authors have found that the Strong usually holds relatively high levels of face validity with clients.

In light of the above information in addition to Fred’s relatively high level of personal control and career maturity coupled with multicultural considerations and his generally positive career decision making thoughts, the Strong Interest Inventory was deemed appropriate as an
assessment tool within the career counseling process.

**Initial stage: Introduction of the SII**

Based on the conversations during career counseling sessions, the Strong Interest Inventory (SII) was introduced as a supplementary tool to help Fred with his major decision. The counselor briefly talked with him about Holland’s (1966) personal-environmental fit theory and how SII assesses one’s interests and personality, not abilities. Additionally, Fred was asked to self-rate on the Holland types. This was led by the career counselor who asked Fred to rate each of the Holland types after each was introduced. A simple rating scale was used ranging from double positive, positive, uncertain, negative through double negative. After Fred rated each type, he was asked to rank order the six categories. As a result, his self-rated top three types were Social, Conventional and Enterprising. The counselor also shared that information obtained from SII can be helpful to assist his career and education exploration, work environment preference, and reassurance of interests if applicable.

In order to obtain additional self-measured interests, Fred was introduced to a career options brainstorming exercise. Specifically, he was asked if he was a night or morning person and Fred identified as a night oriented individual. Fred was then instructed to choose an evening when he was not under any pressure and had some quiet time to list as many careers and/or jobs as possible that may be of interest. He was reminded of brainstorming guidelines to consider a wide range of options regardless of how realistic they are. The career practitioner modeled the exercise noting that a Formula One race driver would be high on the list but would not be very realistic while the brainstorm list would also include more realistic ideas such as career counselor. Fred noted that corporate executive and lawyer would be on his list and he was asked to complete the brainstorming exercise before meeting for the SII interpretation.

The career practitioner reviewed and discussed Fred’s brainstormed list of career options under consideration before completing the Strong. Fred took the online SII and reported that he had no difficulty understanding the questions, and it took him about 20-minutes to complete it. He also said that simply by doing the inventory he found a potential interest in training others. Fred was asked if he had to decide upon a career at the present time based on no further information including SII results, what would he choose? The authors recommend asking clients such questions during each session as often, answers to career decisions lie from within and this approach empowers clients with generating present career options. Additionally, client-generated career options provide present baseline data to consider throughout the career counseling process. In this
case example, Fred noted that while still uncertain he could see himself in a business management position that included a great deal of contact with people.

**Interpretation of the SII Results**

Following is a summary of Fred’s SII scores:

**General Occupational Themes.** Fred’s Theme Code is SEC, his Highest Themes are Social (Standard Score = 62), Enterprising (Standard Score = 59), and Conventional (Standard Score = 55). It should be noted that these themes were consistent with Fred’s self-ratings discussed earlier.

**Basic Interest Scales.** Fred’s Top Five Interest Areas are Human Resources and Training (S) (Standard Score = 67), Management (E) (Standard Score = 66), Office Management (C) (Standard Score = 65), Politics and Public Speaking (E) (Standard Score = 58), Counseling and Helping (S) (Standard Score = 56). His Areas of Least Interest are Science (I) (Standard Score = 34), Visual Arts and Design (A) (Standard Score = 31), and Mathematics (I) (Standard Score = 31).

**Occupational Scales.** Fred’s Top Ten Strong Occupations are Human Resources Specialist (SAE) (Standard Score = 62), Career Counselor (S) (Standard Score = 61), Training and Development Specialist (SAE) (Standard Score = 59), Facilities Manager (ECS) (Standard Score = 59), Human Resources Manager (SEA) (Standard Score = 58), Purchasing Agent (ECR) (Standard Score = 56), Paralegal (CE) (Standard Score = 56), Administrative Assistant (CS) (Standard Score = 55), School Counselor (SE) (Standard Score = 55), and Instructional Coordinator (S) (Standard Score = 54).

**Personal Style Scales Preferences.**
Fred’s Work Style results show that he prefers working with people, helping others, and is outgoing (Standard Score = 69). His Learning Environment results show that he prefers practical learning environments, learns by doing, and short term training to achieve a specific goal or skill (Standard Score = 30). His Leadership Style is comfortable taking charge of and motivating others, prefers directing others to doing the job alone, enjoys initiating action, and expresses opinions easily (Standard Score = 58). His Risk Taking shows that he dislikes risk taking, likes quiet activities, prefers to play it safe and makes careful decisions (Standard Score = 35). His Team Orientation results show that he prefers working on teams, enjoys collaborating on team goals, and likes problem solving with others (Standard Score = 55).

**Interpretation of SII**
Before the SII results are provided to the client it is important to consider expressed interests via a review of occupational brainstorming results, the self-rated Holland types and continued discussion of the client’s cur-
rent thoughts regarding possible academic and career options of interest.

Fred reviewed his occupational brainstorming list and disclosed that he enjoys anything related to cars and could see himself somehow employed in the automotive industry including marketing and sales. Additionally, his list included business executive, personnel manager, lawyer, counselor, social worker and psychologist. Fred clearly recalled the self-rated Holland type exercise but each type was reviewed once again and Fred continued to be confident in his self-rated Holland Code of SCE. When asked again about present thoughts regarding possible career options, Fred repeated his possible interest in pursuing a business career with heavy contact with people.

In preparation of interpreting the SII, it is critical to review three points with clients: First, like any assessment, the SII is not perfect and has limited predictive validity and clients should not treat the results as “truth with a capital T”. Rather, they should look for patterns of interests and view the results as new information that can be added and compared with expressed interests discussed earlier in career counseling. The career practitioner may even joke noting that if the SII provided perfect answers that would make the job very easy! However, the SII represents only a portion of the career counseling ingredients including process, information and assessment. Second, the SII reflects interests and personality but not skills and abilities. Of course, it is important to remind clients that the SII is not an aptitude measure. Clients should be encouraged to consider SII interests as they relate to understanding their skills, personal attributes and abilities acquired through life experiences and academic performance. Third, clients should be reminded that not everyone receives high scores on the SII and, should results reflect only average or low scores, the SII may not be sensitive in reading the client’s interest pattern and personality. As a result, a SII with a flat profile may be of limited use with clients. Donney et al. (2005) address challenges and offer additional strategies for interpreting flat profiles. For example, clients could be asked to review the Occupational Scales with average scores then generate a list of several occupations that may be of interest and warrant further consideration. Additionally, clients should not focus only on Top Five Interests or Top Ten Occupations but consider all high interest areas or occupations via the SII and compare them to the self-rated and expressed interests discussed earlier.

After a brief discussion regarding the three topics addressed above, the SII results were reviewed with Fred. First, the career practitioner (CP) noted that Fred did indeed achieve many relatively high scores. Results of Fred’s General Occupational Themes showed that he scored high on Social, Enterprising, and Conventional, average in Realistic, low in Ar-
tistic and very low in Investigative. As a result, Fred’s measured Occu-

cpational Themes were rather consistent with his earlier self-ratings. The

cp shared with him that these interests are relative levels compared to

working adult men. When asked how well the results reflected his ideas,

Fred said that the values and skills described in Social, Enterprising, and

Conventional are quite consistent with what he likes and values. One of

the top areas of his Basic Interest Scales - Human Resources and Train-
ing - is something that he had not considered in the past but finds it to be

interesting. Before the Occupational Scales were reviewed, the CP noted

that Occupational Scale scores go beyond expressed interests and reflect

the level of similarity in Fred’s personality with others represented in the

occupational scales. Indeed, the Occupational Scales are among the most

important results of the SII as they provide information about how an in-
dividual’s responses compare with those of people actually employed in

and satisfied with a particular occupation. Fred scored similar to several

Occupational Scales including: Human Resource Manager, Training and

Development Specialist, Career Counselor, Instructional Coordinator,

Administrative Assistant as well as Paralegal. Regarding Fred’s work en-

vironment preference, the Personal Style Scales showed that Fred enjoys

working with others, prefers practical learning environments and taking

on leadership roles, but does not like risk-taking. The CP discussed how

his personal style preferences may manifest itself in his fields of inter-
est. Finally, the College Profile was used to look for majors and courses

that relate to Fred’s interests. The CP reviewed the courses, activities,

and internship recommended by SII. Fred discussed a range of possible

majors but noted that he did not want to continue in College of Business

majors due to past performance and experience. Also, Fred considered

law-related majors and noted that paralegal was high among his Occupa-
tional Scale scores but discounted law related careers based on stronger

interest in working in a business/corporate setting and did not want to

pursue graduate/professional school immediately following graduation.

Additionally, Fred understood why certain social careers such as career

counselor were high for him but reaffirmed his interest in working in a

business setting such as an automotive related company. Majors con-

sidered included: Psychology (Industrial and Organizational emphasis),

Sociology, Political Science and Labor/Industrial Relations (LIR). These

majors were placed on a continuum using the Learning Environment

Personal Style Scale ranging from applied to more theoretical majors.

Since Fred prefers practical-applied majors and consistently expressed

interest in working in a business setting, LIR emerged as a strong option

for further consideration.

Follow-up and Next Steps

Following a review of assessments such as an SII, the CP may want to
focus on information gathering associated with academic and career options that were identified through counseling process/discussion, self-measurement and assessment. In Fred’s case, the O*NET was used to help him better understands the relevant occupations, work activities, skills, education, as well as employment trend in the Human Resources field. Subsequently, Fred identified that the requirement for a human resource specialist is a bachelor’s degree combined with work experience in the field. After follow up sessions, Fred was referred to an academic adviser in the College of Liberal Arts that houses the Labor Industrial Relations major and discovered that his current GPA and past course work would transfer that the LIR major. Fred decided to register for courses in Human Resources, Organizational Psychology and Labor-Industrial Relations to get a better sense of the field. He also joined a programming committee in a student group to gain more leadership experience working with others. Assuming interest and success in the courses that he schedule for the next semester, Fred will commit to the LIR major then consider acquiring professionally relevant experience through an internship. Eventually, Fred’s ideal post-graduation plans would involve pursuing a human resources career in the automotive industry.

**Reflections**

Through this article and case study, we have attempted to place the role of career interest assessment measures such as the SII in perspective. The SII represents just one ingredient of career counseling that includes, process, information and assessment. The importance of gathering client expressed interests and self-ratings were emphasized throughout. Indeed, so often the answers lie from within and the career counseling process empowers clients to reach higher levels of self-understanding. Additionally, such counseling process and client empowerment reduces the tendency for clients to respond passively to assessment results in avoiding a “test ‘m and tell ‘m” dynamic. The goal of course, is to create a career counseling environment that is conducive to the client’s internal locus of control. When used effectively, results of an assessment measure such as the SII can provide additional external information that, when added to self-measured and expressed interests, can offer new career options and/or reaffirm career options under consideration.

**References**


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Jeff W. Garis served as Senior Director for Career Services at Pennsylvania State University, 2011-2014, and was Affiliate Professor of Counselor Education. He served as Director of the Florida State University Career Center 1992-2011. He is an affiliate faculty member of the FSU Counseling Psychology and Psychological Services in Education programs. He earned the PhD in Counselor Education, the MEd in Counselor Education and the BS in Psychology at Penn State. He is co-author of a counseling services chapter in *The Freshman Year Experience*, and is co-author of *Handbook for the College/University Career Center*. He is the Senior Editor and chapter author of *Emerging ePortfolios: Opportunities for Student Affairs*. He is co-author of the NCDA monograph, *Employer Relations and Recruitment: An Essential Part of Postsecondary Career Services* (2013). He conducted program reviews and site visitations of university career centers at Stanford University, University of Nebraska, Fort Hays State University, Indiana University of Pennsylvania, University of Central Florida, Loyola Marymount University and Florida Atlantic University. His international consultations have included: University of the West Indies campuses in Jamaica, Barbados and Trinidad; University of Costa Rica-San Jose and Turrialba campuses; and the People’s Republic of China National Ministry of Education in Beijing and Shanghai.

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USING O*NET in CAREER COUNSELING: College Students’ Initial Career Choices
by Tracy M. Lara and Logan Vess

Abstract
This article provides information on how to utilize the Occupational Information Network (O*NET) in career counseling. A brief history, as well as past and contemporary literature on O*NET is discussed. A distinction is made between career guidance, career education and career counseling in order to illustrate how elements of guidance and education present in O*NET can be used as tools for the narrative and holistic approaches of career counseling. A case study is used to demonstrate specifically how O*NET can be used as a companion to the career counseling process.

This article illustrates how to incorporate the Online Information Network, O*NET, into career counseling to assist college students with initial career choices (e.g., selecting a major). O*NET was developed through a grant to the North Carolina Department of Commerce by the U.S. Department of Labor/Employment Training Administration as the successor to the Dictionary of Occupational Titles (DOT; US Department of Labor, 1991). The DOT had been used widely in understanding specific job characteristics and qualifications from 1930’s through the 1990’s (LaPolice, Carter & Johnson, 2008). First released in 1997, O*NET encompasses 60 years of knowledge regarding the world of work and provides a free online database containing specific descriptors as well as information on approximately 900 occupations (National Center for O*NET Development, 2014a). Six content area domains make up the database (e.g., occupational tasks, work behaviors, abilities, skills, knowledge, and work context). These content areas provide multiple windows through which a career can be viewed based on the specific questions clients are asking and serves as useful resources for career counselors (Peterson et al., 2001).

O*NET was designed for the general public and houses a computerized self-help Holland-based interests assessment with specific versions for veterans and Spanish speakers (National Center for O*NET Development, 2014b). Additional career exploration/assessment tools are provid-
ed in downloadable, paper pencil formats along with administration and scoring information (National Center for O*NET Development, 2014c). The career exploration/assessment tools can be used in a self-directed fashion or by counselors working with clients. The tools include the Ability Profiler, Interest Profiler, Computerized Interest Profiler (IP), Work Importance Locator, and Work Importance Profiler. In the case example below, the computerized IP is employed. Pope (2009) found the IP to be a higher quality measure than other similar interest instruments (e.g., Self Directed Search) because the IP does not rely on users’ self-evaluation of competencies and does not have a user fee. According to Crockett (2013), the major strengths of the IP include its utilization of measures to decrease potential gender, racial and/or ethnic bias and its sound psychometric properties. In the developmental sample Rounds, Su, Lewis and Rivkin (2010) found Cronbach’s alpha for the Short Form had an average of .81. Reliability estimates for the IP range from .93 to .96 across RIASEC scales and interest measures. The authors also found support for the construct validity of the IP scales, indicating that the IP scales measured Holland’s RIASEC constructs. Crockett (2013) found that the IP could be useful for individuals making preliminary educational and occupational decisions, mid-life career transitions and for those re-entering the world of work. The author also noted that the IP’s utilization of Holland’s RIASEC codes makes it compatible and easy to use for counselors using other career exploration tools (Crockett). See Peterson et al. (2001) and Wood and Hays (2013) for a detailed description of the conceptual and theoretical underpinnings of O*NET’s content and layout.

Peterson et al. (2001) also discussed O*NET’s applications and implications for research and practice. Researchers have examined career guidance applications offering critiques of O*NET in relationship to matching individuals to occupations using abilities (Converse, Oswald, Gillespie, & Bizot, 2004); convergent validity of O*NET Holland classifications compared to the Dictionary of Holland Occupational Codes (DHOC), and the Strong Interest Inventory (SII) (Eggerth, Bowles, Tunick, & Andrew, 2005); the structure of O*NET occupational values (Smith & Campbell, 2006); comparing occupational descriptors to predict adult literacy levels (LaPolice, Carter, & Johnson, 2008); and replacing job analysts occupational descriptions with incumbent derived ratings (Walmsley, Natali, & Campbell, 2012). The literature highlights a controversial start up for the now nearly 20 year-old DOT replacement. Over the years, O*NET has gained wide usage in educational and other settings serving to meet the career exploration needs of junior high school students through adult learners. Additionally, the compatibility of O*NET with career guidance and career education is evident in the literature (LaPolice, Carter & Johnson, 2008). A gap in the literature
exists regarding the use of O*NET in career counseling. This article provides a case example using O*NET’s IP and database in career counseling. First, the authors make distinctions among career guidance, career education, and career counseling; contextualize college students’ initial career choices; and examine limitations to test them and tell them career interventions in the college setting.

Career Education, Career Guidance, and Career Counseling

Vocational/career guidance was founded in the early 1900s through the work of Frank Parsons (1909). Early career interventions relied upon matching and “test and tell” models, which offered objective legitimacy during the twentieth century (Savickas, 1995). Clients were faced with a person-fit model that, while useful, was an objective construct that somewhat decontextualized the rich information found in an individual’s experience and perspective. According to Savickas (2013), career guidance focuses on aspects such as object, actor, traits, self-matching, and resemblance and a process of matching individuals to careers based on traits. Career education involves organismic development, subject, agent, tasks, self-implementing, and readiness, see Savickas’ (2013) contextualized definition of these terms. In career education interventions consider individuals’ readiness to engage in developmental tasks applicable to current life stage. Finally, career counseling focuses on contextual design, project, author, themes, self-making and reflexivity. In career counseling individuals utilize their unique life stories to resolve work traumas, navigate transitions, and to make career decisions (Savickas, 2013).

In the postmodern era of the twenty first century, theorists and practitioners have shifted career counseling away from test and tell to attend to the context and psychosocial dynamics of an individual’s life career. Savickas (1993) noted the shift from interest inventories used in career guidance to the more holistic, postmodern approaches of career counseling. Traditional and positivist theories of career guidance and education remain significant and useful, providing the foundation for contemporary theories of career counseling. (Savickas, 2011) The postmodern narrative focused on career exploration can be especially powerful for career counselors working with undergraduate college students. Career assessments are still used and can add collaborative value to career counseling. Savickas (1993) noted, “To foster self-developers, we need to augment these objective constructs, not replace them” (p. 210).

College students are increasingly under pressure to choose an academic pathway in preparation for their occupational futures. Colleges and universities face funding pressures to facilitate student graduation rates within a limited timeframe. This mandate has been translated into policies and practices that require students to choose an academic major
earlier and to stay with selected majors to degree completion. However, hastening the selection process and the perception of negativity around changing majors may circumvent the exploration process that is developmentally appropriate for initial career choices.

In higher education settings students may be exposed to career education or career guidance to facilitate their major selection; however, career counseling may be less commonly experienced. Limited resources in career service centers, the proliferation of career information and guidance systems, and stigma associated with counseling (Gati & Asulin-Peretz, 2011) may further contribute to low numbers of students receiving career counseling. Campus career centers may not even have trained or licensed counselors on staff. In such a case, self-report assessments and occupational information delivered via computer systems and Internet, career education, and career guidance become the norm, shortchanging students who would benefit from counseling interventions.

Career education and career guidance have their place, especially when there is a need to service large numbers of students. While career education and guidance available to students may not be sufficient for all, a tool commonly used in these processes, O*NET, has features useful to career counselors serving college students. For a full discussion regarding O*NET’s conceptual underpinnings, features, and content of O*NET, see Peterson et al. (2001), Wood and Hays (2013) and www.onetonline.org. The case study below provides an example of how to use O*NET in assisting college students with initial career choices.

**Initial Career Choice in College: Selecting a Major**

Reasons students struggle with initial career choices have been associated with students’ lack of career readiness (Savickas & Porfeli, 2011), limited career information (Converse et al., 2004), lack of self-awareness, and interference from external influences (Gati & Asulin-Peretz, 2011). Therefore, in career counseling it is important to address students’ career readiness, motivation to engage in career decision-making, knowledge regarding the career choice process, self-knowledge regarding career preferences, and students’ confidence in their ability to make career decisions as preparation for career exploration. Furthermore, career counselors often direct clients on how to find and evaluate career information. In addition to considering the psychosocial issues surrounding career choice, the students’ cognitive development levels can complicate the choice process. For example, it is not unusual for college freshmen to exhibit pre-reflective thinking in which knowledge comes from authority figures, direct observation, and is always correct and certain (Kitchener & King, 1994). This black and white thinking leads students to expect answers from counselors and to believe that a test will tell them
the answer, such as what major to select. Recognizing that career choices are highly personal, students may be expected to know their own preferences, purposes, and values, when in reality first-year college students likely lack the ability to interpret their experiences and insights to make informed decisions (Baxter-Magolda & King, 2008).

Traditionally, guidance efforts in higher education settings have relied on test them and tell them methods. Assessing values, interests, and aptitudes followed by providing occupational information to help students match their preferences to occupations has been followed by a backdoor approach to selecting a major. Once students have identified occupations of interest they are coached to choose majors that match the occupations. O*NET is a useful tool in this process in that its features include the computerized IP that walks student through the occupational information available on the site in this person-occupation matching process.

The shortfalls of the matching approach include the students’ inability to accurately respond to self-report assessments (Osborn & Zunker, 2006) and the validity of the assigned Holland codes to the occupations that form the basis of the matching process (Eggerth et al., 2005). Furthermore, assessing interests may not take into account aptitude or cognitive skills necessary for the specific occupations (Converse et al., 2004). Students’ ability to accurately respond to interest inventories is compromised by students’ cognitive development levels and their lack of experiences. Students may not have sufficient experience to determine if they like or dislike a work task (Osborn & Zunker, 2006). Additionally, students’ expressed interests are more often a reflection of their primary caregivers’ interests or a by-product of foreclosed thinking regarding their career aspirations than a true reflection of their interests (Osborn & Zunker, 2006; Baxter-Magolda & King, 2008). According to Borgen & Seling (1978) congruence between a person’s expressed and measured interests may be as low as 30%. Borgen and Seling (1978) pointed out empirical support for the greater predictive ability of expressed interests in the case when inventoried and expressed interests disagree. Savickas (2005) extended the discussion regarding the low predictive ability of measured interests suggesting that manifest interests, i.e., what a student actually does, is more reliable and meaningful than expressed or measured interests. Additionally, it is important to provide students with information that accurately describes the world of work and characteristics of potential occupations. O*NET is the product of 60 years of vocational research; however, due to the effort to satisfy multiple purposes, design decisions along with the ever evolving world of work has resulted in some limitations to the accuracy of the information the system provides (Converse et al., 2004). Eggerth et al. (2005) examined the convergent
validity of O*NET Holland classification codes with the Dictionary of Holland Occupational Codes (DHOC) (Gottfredson & Holland, 1996) and the Strong Interest Inventory (SII) (Harmon, Hansen, Borgen, & Hammer, 1994) revealing disagreement on the first letter of the Holland codes for occupations about a third of the time. The results were starkly against agreement for the second and third codes as well (Eggerth et al., 2005). This disagreement was attributed to the varied methods to assign Holland codes utilized among O*NET, DHOC, and SII.

Despite these limitations, assessing students’ interests and the O*NET remain useful in career counseling. Career counselors have expertise to meet the clients where they are at in their cognitive development, skills to assist clients in recognizing their manifest interests, and techniques to assist the clients in making meaning and use of the vast information available through O*NET. The following case example spanning three sessions provides guidance to career counselors on how to work through the complex psychosocial issues college students face in making initial career choices and how to effectively use O*NET within the counseling relationship.

Case Study
Brianna is an eighteen year-old Caucasian female and a first-generation freshman student at a northwestern public university in her second semester. Her university has a rule that she must declare an academic major by the end of her third semester. Her academic advisor referred her for career counseling. At the beginning of the first session the counselor asks, “How may I be useful to you today?” and Brianna’s eyes become filled with tears as she exclaims, “I just feel pulled in so many directions.” She reports an overwhelming uncertainty about what to do in her life career. Savickas and Hartung (2012) described the concept of life career suggesting that, “knowing and telling your own life story, or autobiography, adds meaning to your career plans and choices” (p. 1). Brianna explains that she came from a family of limited means and the family often struggled to get by. She expressed that she is, “stressed out because nobody is helping me and telling me what to do.” The counselor uses empathy and reflective listening skills to learn about Brianna’s story, and identifies that Brianna is a gifted student. She confesses she was often at the top of her class with grades, but received little praise from her parents for her academic accomplishments. While her motivation and grades during her first semester of college demonstrated her academic talent, first semester GPA 4.00, she feels little direction for what she is working for and is hoping that meeting with the counselor can aid in her career-decision making process.
Applying the career construction framework and Career Construction Interview (CCI) (Savickas, 2005; 2011), the counselor guides Brianna in telling her story to reveal her life theme, her vocational self-concept, and her vocational personality. Career construction is rooted in social constructionism rather than logical positivism (M. Savickas, personal communication, September 25, 2014). Therefore, career construction as a discursive practice provides a means for the client and counselor to produce social and psychological realities (Davies & Harré, 1990). Furthermore, Savickas (2009) stated,

Career construction theory prefers to view interests and other career-related traits as strategies for adapting rather than as realist categories. Concepts such as interests should not be reified as factors or traits. They do not reside within an individual and they cannot be excavated from within by interest inventories. They should not be treated as objects by counselors; they are verbs not nouns. Career-related abilities, interests, and values are relational phenomena that reflect socially-constituted meanings. They are dynamic processes that present possibilities, not stable traits that predict the future. (pages 4-5)

For more information on career construction discourse and the CCI see Savickas (1989; 1995; 2005; 2011; 2013) and Taber, Hartung, Briddick, Briddick, & Rehfuss (2011). The CCI and many other useful resources for counselors and counselor educators can be accessed for free through Vocopher at http://www.vocopher.com. The following case demonstrates how to incorporate O*NET into this process of Brianna and counselor coconstructing a revised narrative to guide her possible actions (Savickas, 2011).

In the CCI, Brianna described her third grade teacher as her role model, because her teacher encouraged students to “figure things out.” The counselor pays careful attention to the words and phrases Brianna uses, such as figure things out as she responds to CCI stimulus questions. Savickas (2005) noted that understanding and using the clients’ own language and subjective experience of their own realities aids in understanding the current situation and its roots. This can also make the process more meaningful for the client. Brianna shared that throughout middle school and high school she excelled in mathematics and science courses, and found “great catharsis” in art projects. Brianna’s story reveals her manifest interests, vocational personality, and clues regarding the tasks and conditions needed to add meaningful satisfying work into her life. The CCI allowed Brianna and the counselor to explore her preferred environments in sharing her favorite magazines, TV shows, and websites. Brianna’s favorite magazine was Discover. She recalled reading it as early as the fourth grade, even when she did not understand many of the
words. As part of the CCI, Brianna created her success formula as “I will be most happy and successful when I am figuring things out creatively and using my hands.” Taken as a whole, the interpretive results of the CCI yielded Brianna’s preoccupation as not being confined to one approach to solving problems. She enjoys using innovation and creativity to solve-problems, she values her autonomy, creativity, and unique way of seeing the world as well as taking a hands on approach and being able to manually manipulate items. Thus, her hypothesized Holland preferences as indicated in her responses to the CCI would be I, A, R.

It is important for clients to gain a sense their vocational personalities and the vocational personality intersects with the world of work (Savickas, 2005). In the counseling relationship, the counselor “checks in” with the client regarding her understanding and provides interpretive feedback (Gati & Asulin-Peretz, 2011). Moving forward the counselor aims to reinforce Brianna’s understanding of her vocational personality and to give her language she can use to navigate her career throughout her lifetime. Because students are more likely to recall their Holland codes when they receive meaningful interpretive feedback (Dozier, Sampson, & Reardon, 2013), the counselor strives to assist Brianna in making meaning of Holland’s codes associated with her vocational personality and to further assist Brianna in understanding that the world of work is also organized according to Holland’s codes. In this effort the career counselor builds upon Brianna’s new self-awareness from the CCI and turns to O*NET as a tool to challenge and support her thinking regarding her career options.

In the second session, the counselor introduces Brianna to the O*NET IP, a Holland-based interest inventory. Users rate 60 work activities on a five-point scale from “Strongly like” to “Strongly dislike.” Brianna’s results were R-36, I-26, A-29, S-9, E-5, C-4. Using the rule of 8, for all six scores Brianna’s codes showed high differentiation (Reardon & Lenz, 1998). Brianna’s prominent codes, R A I, exhibited low differentiation and a high profile. Differentiation is the level of distinctness in an individual’s career profile (Reardon & Lenz, 1998). Further, Holland (1997) noted, “Well differentiated patterns have sharp peaks and low valleys, whereas poorly differentiated patterns are relatively flat” (p. 31). According to Osborn and Zunker (2006), when examining differentiation between codes low differentiation may be an indicator of multi-potentiality, indecisiveness, or lack of clarity regarding interests.

A high undifferentiated code, such as Brianna’s indicates a lot of interests and skills in several areas (Osborn & Zunker, 2006, p. 96). Due to the low differentiation of Brianna’s prominent codes, she is likely to find satisfying occupational options in her exploration (Osborn & Zunker). Brianna’s IP results confirmed her manifest interests which were revealed
through the CCI and her vocational personality emerged as IAR. Brianna reads the descriptors of each of her IP-generated Holland codes. She is asked to consider how aspects of what she learned about herself up to this point in counseling connects with her IP results. Brianna exclaims, “I always felt that science and art were different, but now it feels like I could be an artistic scientist! I love hands on projects and using my mind and my hands to figure out how things work, they are connected.”

Brianna clicks ‘next’ on the O*NET IP to explore occupations by job zone. The counselor explains what educational levels match the job zones (e.g., job zone four represents bachelor’s level education and job zone five represents graduate education). Brianna expresses concern about paying for graduate school. The counselor provides career education about graduate school and the possible availability of assistantships and other funding options. Brianna is delighted by this information and decides to explore occupations matching Holland code “I” in the extensive job preparation zone five (National Center for O*NET Development, 2014c). A list of occupations matching the interests assessed through the Interests Profiler appears on the screen in alphabetical order, with two descriptors, “best fit” and “great fit.”

Brianna expresses interests and questions about a few occupations and then chooses to click on Find More Careers which allows a search by a single Holland code. Consulting over the Holland code descriptors, Brianna selects Investigative as the code that describes her best. In clicking on Investigative, Brianna finds 83 occupations. Having too many options can often be overwhelming for students (Gati & Asulin-Peretz, 2011). Furthermore, it is wise for the counselor to remain cognizant of this being overwhelming due to the variability of coding based on the ever evolving world of work (Eggerth et al., 2005) and to take the time to collaborate with the clients in making meaning about how the descriptions of the occupations would enable clients to add meaningful and satisfying work into their lives (Savickas, 1995; 2005; 2011). Brianna is searching for a college major; therefore, at this point it is important to consult the required education and training levels for the occupations and to consider a variety of academic routes that would provide opportunities to engage in subjects and tasks that are purposeful, meaningful, and motivating.

As an ongoing process during counseling, the counselor checks in with Brianna regarding her information processing in order to not mislead her into thinking that the Internet Profiler is a magical process and inadvertently reifying a pre-reflective thinkers’ tendency to want answers from a source of authority. Continually referring back to the content of the CCI interpretation is useful in challenging the client to reflect upon her life story to inform career choices.
Still facing information for 83 occupations, the counselor shows Brianna how to exit the IP window and move to the O*NET homepage. In the center of the page under Advanced Search there is a drop down menu in which Brianna clicks on Brows by O*NET Data: Interests. She is able to input Investigative as her first code and Realistic as her second code for job zone 5. A word of caution to counselors inputting three codes, in some instances, entering 3 codes may fail to yield results.

In order to help Brianna narrow down the list of possible occupations, the counselor and Brianna review her success formula: “I will be most happy and successful when I am figuring things out creatively and using my hands,” and her desire to avoid being confined to one approach to solving problems. Brianna also associates tasks and course subjects to the individual letters of her IAR code as a way of exploring the meaning she makes in regard to her code. Brianna is encouraged to examine occupations that she is unfamiliar with and to explore with the counselor how the occupations she finds attractive make sense with her new understandings gained through the CCI and IP. She examines occupation links before stopping at Physicist. While reading the information under the Tasks heading Brianna turns to the counselor and exclaims, “This seems so much like me.” Brianna continues to go through the information, but stops and says, “I was really hoping to find a career just like this, but one where I could also be creative.” Brianna stops under the Work Activities tab and notes that the first activity mentioned is “Thinking Creatively.” Brianna shares that she thinks she would enjoy many aspects of physics as a major. The counselor encourages Brianna to look at the Wages and Employment Trends tab, as well as the Job Openings on the Web tab. Through exploring these functions Brianna notices that becoming a Physicist seems competitive and will mean the possibility of traveling out of state for a job. Determined, Brianna states, “I never thought I would be able to go to college, much less graduate school. I have always thrived under pressure and this seems like the perfect challenge for me to work toward.” Brianna is guided to reflect on the information she has gathered through the process of career counseling and exploring O*NET. Brianna states, “I am so glad I was able to meet with you. I have learned so much about myself and I feel like I am ready to make the next steps in my career.” The counselor will encourage her to examine other options that were presented before making a final decision. One resource the counselor mentions is “What Can I Do With A Major In”, which is a web link commonly housed on campus career center websites. The counselor explains to Brianna that this can be helpful tool in gathering specific information about majors and occupations. The counselor encourages Brianna to explore descriptions of academic programs at her University and to have conversations with faculty members and her academic advisor.
in regard to what the program has to offer and to explore the courses and grade requirements. Brianna tells the counselor that she is going to speak with the program coordinator for the Physics program and that she had hoped to continue taking art classes during college, but is still overjoyed to have found a major that seems to fit so well with her personality. Brianna laughs and states, “I was really close to being an art major before coming in and now I am going to major in physics!” Knowing Brianna’s aptitude for academic achievement the counselor asks Brianna if she has ever thought about double majoring. The counselor proposes that knowledge and skill in art could make her a unique and attractive candidate for possible jobs. Delighted, Brianna exclaims, “That settles it! I am going to see what it would take to double major in Physics and Art!”

Case Discussion
This case analysis demonstrates how O*NET can be used as a tool in career counseling to reinforce the interpretive content of the counseling process to provide the client with a language and skill set to navigate her career future. The counselor incorporated career education about graduate school and funding and career guidance in matching manifest interests with possible occupations to explore in the career counseling process. Using the CCI with the client to examine and work through psychosocial issues associated with her initial choice was necessary to increase the client’s receptivity and capacity to making use of the career education and guidance associated with the career exploration process. This was aided by the holistic approach and collaborative relationship. Brianna’s O*NET IP results provided a moderately consistent Holland code (RA) whereas the CCI indicated a consistent (IA) code. In revisiting the meaning constructed from the CCI in interpreting the IP results, the client was able to gain an understanding of her vocational personality. Additionally, the counselor empowered the client to find her own possibilities through exploration and reflection and to thoughtfully consider alternatives based on her new self-knowledge. Engaging clients in reflective thinking is useful in facilitating increased cognitive complexity and development especially for students displaying pre-reflective thinking and a heavy reliance on authority figures for answers (Kitchener & King, 1994). The CCI encourages reflection and could be one of the first opportunities for students to begin thinking for themselves when making vocational choices. This process begins with the first question, ‘How can I be useful to you?’ which sets the agenda for the counseling process and places reliance on the student for answers and direction. Through the CCI the client’s vocational personality is revealed, including the values, interests, and aptitudes within her life career. (Savickas, 2011).

The case study provided one specific process that can be used in career counseling. Clients may have a myriad of concerns regarding the world
of work. Gati and Asulin-Peretz (2011) emphasized the importance of career counselors learning how to effectively use online tools such as O*NET in order to meet clients’ needs and more importantly that career counselors should provide subject matter expertise in the development of such tools.

**Conclusion**

Career counselors have expertise in knowledge, skills, and techniques suitable for exploring the clients’ context and situating clients as authors in constructing their lives (Savickas, 2013). Through counseling clients realize themes enacted in their lives and are able reflect upon and make meaning of their stories in order to inform their future possibilities (Savickas, 2013). Career counseling is therefore distinguished from career education and guidance. The case study illustrates how O*NET can be used as a tool in the career counseling process that holistically considers the clients’ cognitive development and the theoretical complexity and limitations of the database. Finally, the authors emphasize that it is as incumbent upon career counselors to gain a depth understanding of available self-directed online tools as it is for career counselors to lend expertise in the development of such tools.

**References**


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PUTTING STRENGTHS to WORK in CAREER DEVELOPMENT and TRANSITION
by Jacqueline J. Peila-Shuster and Crystal Ligon

Introduction
Specialists in the career development field often lean toward positive psychology — the “scientific and applied approach to uncovering people’s strengths and promoting their positive functioning” (Snyder & Lopez, 2007, p. 3). This approach positions them well when partnering with individuals as they construct their futures. To utilize strengths in one’s life design, though, one must first be able to identify and integrate them into her/his self-concept (Hodges & Clifton, 2004). This is not an easy endeavor, especially considering the lack of emphasis on strengths that many encounter throughout their lives, as well as the dearth of language for describing and conceptualizing strengths.

Fortunately, the Clifton StrengthsFinder (CSF) (a.k.a. StrengthsFinder 2.0) can assist career development specialists and clients in their attempts to identify, understand, and voice strengths. This assessment measures individuals’ talents based on 34 themes and then provides them with their top five strength themes (actually talent themes) as well as strategies for strength affirmation and development. In this article, we demonstrate the utility of the CSF through a case study, as well as provide additional ideas and options for use. For additional information on the CSF and purchasing options, please go to the StrengthsQuest website (http://www.strengthsquest.com).

In this article, we, as the authors, chose to combine a variety of past clients to form our case study of Lydia. Furthermore, for readability, we have written the case study in third person with just one career counselor, whom we refer to as John.

Case Study
Background and Context
A 29-year-old, non-Hispanic White female, Lydia, is head of a university Information Technology (IT) department, but is feeling burned out and tired at work. Her mother, a nurse for several years, recently decided to go back to school as part of a career change. This inspired Lydia to find a
new path, and she started career counseling to explore her options. In the first session, Lydia shared with the career counselor, John, that she graduated top of her class with a degree in computer science eight years ago and has been working for her alma mater’s IT department ever since. Lydia started as a support representative at the help desk, but advanced quickly, being promoted to IT Manager just two years after starting with the department. She always had a natural knack for troubleshooting problems. Lately, however, Lydia had daydreams about doing research in advancing computer technology and getting involved in new product development. In her current job, there is little room for research and creating new software, leaving Lydia feeling stifled. Her primary role is managing her team and sending them to respond to technology projects around campus. Lydia feels drained at the end of her work day and feels her identity stops at information technology.

While Lydia shared her story, John noticed that she seemed to be running off of nervous energy. She adjusted and readjusted in her seat several times, shifting her weight from right to left. She fidgeted with a hair tie on her wrist, and in general, seemed uncomfortable. When John pointed this out, Lydia shared that she sometimes feels diffident, especially when thinking about switching her focus from IT to different career possibilities. She is uncertain if she will be able to transfer the skills that she has learned for the past eight years to another field. John then asked Lydia to describe her transferable skills and qualities that would be suited in other jobs. Lydia could not answer this. She noted that she had been running on automatic for so long in her current job that it was difficult to identify her strengths. She was uncertain that her skills and qualities would be beneficial to other companies outside of IT, let alone companies working on new software, coding languages, and modern innovation. John empathized with Lydia and reaffirmed that identifying those qualities can be really difficult.

**Assessment Selection**

As the career professional, John had many things to consider in determining paths that would be most helpful in meeting Lydia’s needs. In considering Lydia’s situation and the purpose of assessment, John felt that first helping her identify, develop language around, and honor her strengths would be an appropriate place to start and would serve multiple purposes such as engaging her in the process as well as feeding into case conceptualization, goal development, and action planning. Furthermore, Lydia had hinted at a lack of confidence in being able to transfer her skills to other jobs and provide value at other organizations. John believed helping Lydia identify and take ownership of her strengths, as well as determining how she has successfully used her strengths previously, could begin to build her confidence.
John turned to the Clifton StrengthsFinder (CSF), originally developed by the Gallup Organization under Donald Clifton’s guidance (Lopez & Tree, 2009). This instrument was created as a developmental tool to help individuals identify innate talents that could be developed into strengths (Asplund, Lopez, Hodges, & Harter, 2007). This online assessment has been considered appropriate for adolescents and adults with at least a tenth-grade reading level (Lopez & Tree, 2009). Following completion of the assessment, a report is generated that lists the test-taker’s top five themes of raw talent in rank order, as well as suggestions for possible actions that can be undertaken to help develop talent themes into strengths. John decided this assessment would be helpful in giving Lydia more language to talk about her strengths; and together, they could contextualize the results within the realm of her work and life.

John was well-versed in using this assessment and felt that the norming population used for the CSF as well as its evidence for reliability and validity were adequate for the purposes he had envision for Lydia (discussed earlier). Lopez and Tree (2009) stated that the reliability of the CSF was adequate for identifying and helping with the development of strengths with internal consistency coefficient alphas at or above .70 for 23 of the 34 themes, and only 3 themes had alphas below .65. Additionally, test-retest reliability of the 34 themes were between .60 and .80 for a six-month interval (Lopez & Tree, 2009). It should be noted that test-retest reliability is complicated for this assessment since there are 278,256 possible unique top five theme combinations and a change in response to one item on certain scales can move them in or out of the top five (Lopez & Tree, 2009). Thus, retaining one’s top five themes in the same order would be an unlikely prospect. In terms of validity, Donald Clifton and other researchers at Gallup spent over three decades studying traits that led to excellence in an assortment of areas, including schools and a wide variety of work environments; it was their research that provided the foundation for this assessment (Lopez & Tree, 2009) and evidence for content validity due to their expertise in the area of strengths. Various studies have also provided support for construct validity (e.g., Asplund et al., 2007; Lopez & Tree, 2009; Schreiner, 2006). (Also see Hauser & Hillis, 2013, for a review of the CSF.) Thus, John decided to proceed and introduce Lydia to the concepts used in the CSF.

**Assessment Administration**

First, John talked to Lydia about ways to identify strengths and started to introduce the CSF. To do this, he had Lydia write her name as many times as she could in 15 seconds. Lydia wrote her name about 10 times. John then requested that Lydia try to improve her score using her non-dominant hand. Lydia wrote her name three times. John asked her how
her experience the second time differed from the first and why writing with her non-dominant hand was less successful.

Following this discussion, John explained to Lydia that the reason for this activity was to help her start thinking about what she can do well naturally, without thinking — similar to how she uses her dominant hand. Furthermore, when she does use what comes naturally, she is more successful. He likened this to the concepts underlying the CSF, the results of which would be indicative of her natural and inherent talents. He went on to discuss that in applying skills and knowledge to areas of talent, one develops strengths (Clifton & Anderson, 2002). He also explained that strengths are not just those things we do well, but are also activities that make us feel strong (Buckingham, 2007). In other words, while Lydia may be good at various activities, if those activities do not provide deep satisfaction or feelings of strength and energy, then they are not strengths. Furthermore, weaknesses could be defined as those activities that make her feel weak, or drained and depleted of energy with no desire to regularly engage in them (Buckingham, 2007). Lydia was excited about this new way of looking at strengths. However, she stated that doing this would be hard because she was so used to working on improving her areas of weakness. At this point, John discussed that according to the strengths-based model underlying the CSF, it is believed that **there are three myths that hold people back** from living a life that plays to their strengths (Buckingham, 2006, 2007; Buckingham & Clifton, 2001; Clifton & Anderson, 2002).

- **The first myth is the belief that as we grow older, we change.** While this can be true in some respects, and may hinge on some of the events a person has encountered in their lives, the developers of the CSF indicated that as we grow older, we become more of who we already are. Lydia readily confirmed this in terms of her own development throughout her life.

- **A second myth is that people will grow most in their areas of weakness** (Buckingham, 2006, 2007; Buckingham & Clifton, 2001; Clifton & Anderson, 2002). In reflecting on this belief, Lydia saw multiple flaws emerge. How often does one truly become excellent in an activity that one is very poor at and/or drained of energy when performing? Lydia revealed that when she is energized and empowered by doing something (i.e., a strength), then it becomes more likely that she will invest greater effort and achieve higher levels of excellence. Thus, the truth that counteracted the myth was that individuals will grow the most in their areas of strength (Buckingham, 2006, 2007; Buckingham & Clifton, 2001; Clifton & Anderson, 2002).
• **The third myth** holding Lydia back from a strong life was the belief that **to be a good team member, she had to undertake anything that helped the team** (Buckingham, 2006, 2007; Buckingham & Clifton, 2001; Clifton & Anderson, 2002). However, upon discussing this, Lydia confirmed that certain tasks did indeed make her feel drained and ineffective as a team member. She also noted that the times she experienced a truly effective team was when each member was fully utilizing and contributing their individual strengths in combination with her team members’ strengths. Just contributing wherever or whatever often led to mediocrity, rather than excellence.

John went on to discuss how he and Lydia could partner together to contextualize her results from the CSF within her life and work arenas. This would help her have greater self-awareness of her strengths and transferable skills, help them discover and explore paths that could best suit her strengths, and suggest ways that she might enhance her self-development (and boost her self-confidence). After Lydia consented to take the CSF, John described the nature of it. He informed her it would take approximately 30-45 minutes to complete and she would have 20 seconds to answer each question for which some of the choices may seem difficult because of not liking either choice or liking both choices. He urged her to go with her first instinct. He also suggested that she take the assessment when she was in a typical mood so as to best capture her normal responses to the questions. After making sure Lydia had no questions, John issued her a code, provided her with written instructions on how to access the instrument, and scheduled an interpretation appointment. John instructed Lydia to print out and bring to the next session her top five talent themes. These one-word theme descriptors each encompass a talent theme such as Achiever, Strategic, Developer, and are followed by a more in-depth explanation regarding that talent theme and how it might demonstrate itself in her life. She would also want to print and bring the action report, which provides potential avenues and methods for further developing and utilizing her strengths. John also received and printed her top five talent themes.

Other activities that John may have used to introduce the concept of talents and strengths include working with Lydia on an activity developed by Gallup (2010) called **Five Clues to Talent©**. This activity is based on the idea that detection of strengths (or at least the talents underlying them) can be done in a variety of ways, including tracing them back to yearnings, rapid learning, flow, glimpses of excellence, and deep satisfactions as described next based on the work of Buckingham and Clifton (2001), Clifton and Anderson (2006) and Gallup (2010). Yearnings may include those childhood longings that never went away; for example,
consistently being pulled to perform in front of others. Rapid learning involves having the capacity to learn new skills quickly and relatively easily. Flow can occur when performing activities that feel automatic and innate, knowing intuitively the steps needed to accomplish a task. Glimpses of excellence urge clients to think about activities in which they displayed spontaneous reactions and subconscious moments of excellence. Finally, deep satisfactions provide clues to talents because when one uses her/his strengths or talents, it feels good, leaving the client asking, “When can I do that again?” Of course, a strength is something that is productively applied, so if something feels good but is not productive (i.e., feeling good when someone else fails), then it is not a talent.

John has also found it helpful to use quotes that are impactful in introducing the concepts behind strengths. For example, Benjamin Franklin is quoted as saying, “Hide not your talents. They for use were made. What’s a sundial in the shade?” (BrainyQuote.com, n.d.). Using quotes that focus on and inspire clients to surface their natural talents can be a powerful exercise. While processing this exercise, counselors can ask:

- What talents do you have that you use in your everyday life?
- What talents do you not use but wish you did use?
- How can you use those talents further?

Clients can also choose their own quotation that resonates and motivates them and then reflect on that particular quote. Quotes can also be coupled with probing statements in which clients are asked to close their eyes and the counselor states the quote and then asserts, Your innate qualities and passions are important. Probing statements usually come later during the interpretation of the strengths, often bringing up strong emotions for clients that can lead to further processing and discovery.

**Assessment Interpretation**

Before Lydia came back for the interpretation, John reviewed her resulting theme sequence: Restorative, Achiever, Analytical, Ideation, and Strategic. He looked through the report’s insights and pondered possible questions to ask during the session, but also reminded himself to let the process unfold organically.

When Lydia came to their next appointment, John reviewed expectations and confidentiality with her before clarifying her goal of identifying strengths and transferable skills, as well as exploring careers. He also made sure that Lydia understood the difference between strengths and skills — strengths being an ability to provide consistent, near-perfect performance in a given activity (and an activity that makes her feel strong), and skills being the capacity to perform the fundamental steps of an activity (Buckingham, 2007; Clifton & Harter, 2003). Following this, John
asked what Lydia thought of the assessment. She conveyed that it was insightful and she could see examples of how her strengths played out in her life. John then had Lydia read and highlight sentences and phrases that resonated with her on the report. After discussing those, John helped her apply her results to actual life examples with the following questions:

- What are some accomplishments from your past that you are most proud of?
- What energizes you day to day?
- What are you looking forward to in the near future?
- How do you define your role as an IT manager?
- What drains you about this role?
- What is most fulfilling about this role?

Additional questions John could have asked are listed below and were developed from various resources on the StrengthsQuest website (www.strengthsquest.com):

- What feedback do you get from others when you share your results?
- What would friends, family, and/or coworkers say you do best?
- Who knows what you do best? Who else would benefit from knowing this?
- Which of your themes do others appreciate?
- Which of your themes do you feel is not appreciated? How do you feel it is helpful?
- How do your themes connect with, or contribute to, a recent success?

John urged Lydia to provide specific examples and commented on various connections that became apparent from their conversation. He did this tentatively, looking for confirmation, through comments like: 

_Could this be...?_ and _I think I heard you say..._ For example, John posed a possible connection between Lydia’s theme of ideation and her interest in creating new software saying, “_I think I heard you say you get really excited when you generate inventive ideas for new projects, especially those that require upgrading and developing software._” Additionally, with Lydia’s theme of strategic and achiever, they concluded together that she also wanted to be able to plan and follow through with the implementation of new ideas. Furthermore, Lydia liked the idea of continuing to troubleshoot and solve problems, which she admitted is one part of her job that she enjoys, highlighting her restorative and analytical talent themes. In discovering these connections between her interests and her strengths, John and Lydia decided that these would be areas to further explore in terms of potential career paths.

**Next Steps**

While Lydia and John delved deep into her strengths in this one interpretation session, and even determined areas for further exploration, Lydia
still felt that she needed more *concrete* ideas about how her strengths related to work activities. She also asked for help in determining specifically which jobs would match her strengths. John indicated that one of the remarkable things about strengths is that they are not job specific or even discipline specific; they can be applied in innumerable ways and across a multitude of roles (Clifton & Anderson, 2006). So, it would be their work together that would help them identify how Lydia’s strengths combined together and interacted with various occupations, jobs, and organizational cultures, to see what may or may not be a fit for her. He also suggested that they could obtain finer granularity about work activities that made her feel strong, thus taking the themes from the CSF down to a more *day-to-day* level. John felt this would help Lydia gain greater self-confidence in her strengths as she gained greater clarity about them with specific examples of ways in which she used them.

To help Lydia more precisely pinpoint strong activities, John will call upon the work of Marcus Buckingham’s (2007) book, *Go Put Your Strengths to Work*, in which he leads readers through a series of activities to gain greater clarity around both strengths and weaknesses. In determining strengths, Buckingham suggested identifying activities in one’s daily work which makes one feel strong. By focusing on these activities (picking the top few), and providing rich details around them, it puts the identification of a strength into a contextual framework that may be directly applied to finding affirming and engaging activities to pursue. Repeating this with multiple activities that make one feel strong exposes patterns or themes of strength that individuals may want to build upon as they move forward. To provide rich language and details around a strength, John will ask Lydia the following questions (adapted from Buckingham, 2007):

- Does it matter if other people are somehow involved with this activity? If so, does it matter who these people are?
- Does the purpose or intent behind the activity matter?
- Does the specific activity, or content, make a difference? Or, is there something else that drives the strength?
- Are there other particulars that help make this activity a strength (e.g., level of knowledge, being prepared, spontaneity)?

For example, Lydia may have determined she felt strong while troubleshooting issues with a new computer system. By delving deeper, she may identify that she prefers to troubleshoot these problems as part of a team. Furthermore, she may reveal that she prefers to think about problems before they occur. In other words, she innately foresees what could happen, and then figures out solutions before the problems ever arise. Pulling all of this information together, Lydia can then develop a strength statement.
(Buckingham, 2007) that clearly and accurately depicts what makes her feel strong. Her statement might be, “I feel strong when dreaming up new software programs as well as working with a team to determine issues that may arise with various computer systems before they happen and then develop preventative solutions.” While this statement is narrower than a strength theme from the CSF, it is broader than her original activity of troubleshooting a computer system issue. Furthermore, Lydia may decide that while she likes to problem find as well as problem solve, implementing the actual solution tends to drain her.

Since Lydia has more than one strength, she can develop more than one strength statement. The important thing is that she delves deep to gain greater understanding of her strengths as they apply to her work, and develops rich language to describe them so she can move forward in discovering how she wants to utilize her strengths in her work (and life). These strength statements, then, can be tied back into her strength themes from the CSF, allowing her to move back and forth from a big-picture lens to a more activity/situation-specific view.

Another activity John might use with Lydia is to have her imagine that her top two themes are two people, choosing and planning their careers (Clifton, Anderson & Schreiner, 2006). This activity requires the client to pick the top two themes that seem to fit them best and then personify those themes that totally embody the talents described in association with those themes. John can then encourage Lydia to review the action items associated with her theme and list the types of environments that bring out the best of the talents in those themes, as well as consider people she might interview or read about to learn how those talents are applied in the workplace.

Lydia also needs to know how to communicate her strengths. By sharing her strengths with others, she will gain opportunities to discover more possibilities for engaging in them. It is often easier to start this communication process with someone who is known and trusted. Urging Lydia to identify this person and set a goal for when to talk with this person is recommended. Lydia can gain useful feedback by asking people to provide specific examples of how they have seen her use the strength(s) she discusses. After gaining some comfort and clarity with her strength statements, Lydia can move on to talking with others. This step is similar to having a career counseling client reach out to their network and complete informational interviews.

**Challenges and Important Considerations**

One important note about *strong* activities – while we have used this word throughout this article, it is critical to use the language that best
suits the client during preparation for the CSF as well as during interpretation and application processes. *I feel strong when I…* does not necessarily resonate with each individual. Terminology such as most at purpose, or most passionate, or most alive has been suggested by participants during strength-based workshops (Peila-Shuster, 2011, 2012). It is imperative that we encourage individuals to find their own voice and use language that has the most meaning for them.

Another challenge in using the CSF 2.0 is helping clients consider the broader applications of their strengths so that they do not try to pigeonhole a strength with a particular career field (e.g. empathy with counseling). Instead, we find it is helpful to partner with clients to help them see how their strengths interact with each other and contribute to a variety of aspects in their lives and imagine possibilities in terms of how they might apply their strengths to any of the work they do. In doing these, the talent themes from the CSF often need to be broken down into specific activities within the individual’s work (or other life activities), and then broadening them slightly so that various applications can be determined.

Finally, it must be remembered that the use of the CSF, and its interpretation, will vary depending on individual clients and their specific needs and goals. Thus, the case study and examples we have provided must be considered and adapted within the context of each individual client. Fortunately, because strengths are very individual, and the activities utilized in the case are person-dependent, adapting strategies is inherent within the strengths-model and the CSF.

**Other Uses**

We have also used the CSF and the activities described previously within career counseling groups and workshops and have included situations ranging from self- and career-exploration with undergraduates, to workshops with individuals contemplating retirement. In the workshops with pre-retirees, findings from a research study indicated that strengths-based approaches hold promise in helping individuals develop greater retirement self-efficacy (Peila-Shuster, 2011), thus it may also help individuals gain greater self-efficacy in other career transitions, as was hoped for in the case of Lydia. Anecdotally, as we have worked with clients, we have noted an increase confidence in their strengths and their ability to communicate them and carry them forward.

**Conclusion**

Our use of the CSF has been helpful for clients in identifying, giving language to, and more fully integrating their strengths into their self-concept and life-career design. While the CSF is a beneficial instrument in quickly narrowing down top talent themes and providing an enriched strengths
vocabulary, the true value lies in an interactive dialogue between client and career professional. It is important to partner with clients in this process to fully embed the results of the CSF within their individual and unique life contexts. Furthermore, helping clients individualize their strengths and hone in on their own strengths language and strong activities are important steps in facilitating their movement forward towards a strong life-career.

References


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Chapter 5

THE MBTI and the CASE of HILLARY
by Fay Roseman

Case Summary
Hillary is a 54 year old single Caucasian woman who was steadily employed in the same field for more than 30 years. She remained at each of her places of employment between two and seven years and while she was looking for a new job in her most recent position, she was terminated prior to finding one. Although she found her field and work to be intellectually stimulating, it was extremely stressful and she wanted to find another career path that would provide the same intellectual stimulation but within a less stressful environment. She noted that “after a day of work, I’m exhausted and I know it’s not because of the actual work.” Hillary noted that she preferred to work independently and that, despite holding a supervisory role in some of her prior positions, she avoided the social elements of work. She recalled an incident with a prior supervisor with whom she was fairly friendly who commented that Hillary was a natural when she participated in a professional development seminar. Hillary explained that she did not like being social and recalls her supervisor “looking at me funny” and commenting that she “did well.” Hillary responded by indicating that it wasn’t that she could not be social but that she did not feel comfortable being social. She offered that there were times she was accused of being aloof, not being involved, and not caring about what was happening in the office. Hillary took offense to these assessments of her character because she was passionate about the work she did, received verbal and written praise repeatedly and demonstrated a strong work ethic. She indicated that she was accused of being disconnected in her discussions with her supervisor and that her lack of response demonstrated her lack of concern for the topics being discussed. Hillary explained that her lack of response was because she was listening to what the individual was saying and reflecting on what was being communicated to her. It is important to note that these conversations were not regarding her work product, which was considered exceptional, but solely about how she related to others in the work environment.

Hillary came to counseling to “find out what I’m doing wrong” after she was terminated from her most recent position, and to “change fields” because she no longer wanted to work in her current field. She indicated that she is a creative person who loved to read and that she is tired of feeling “out of place.” She noted that she was happiest when she was
by herself and also shared that while she did like being with people, she did not like it as much as her colleagues. She indicated that she sought counseling over the years because she was easily overwhelmed when socializing with family and friends. Hillary felt they were “boisterous” and “outgoing” and she didn’t understand why it was so easy for other people to “socialize” when she struggled to make “small talk” with others, even when those people were family members she had known her entire life. She recalled that the generic response she received from several counselors was “you just need to do it more because the more you practice the easier it will get.” Hillary noted that she would comment about how socializing never seemed to get easier and was continually told to “keep practicing.”

Rationale for Choosing the MBTI®
Hillary struggled with understanding the disconnect between her own comfort level about how she felt about herself and her difficulty in her interpersonal relationships in the workplace and in her personal life. Her difficulty with work did not stem from the work itself and she wanted to understand why socializing was such a challenge for her. In addition, she wanted to be sure that she was correctly revising her resume to focus on transferable skills so that she could seek employment outside of her current field that would be a better fit. Given that the focus of the MBTI® is a strengths-based instrument and was developed based on a non-psychopathology perspective (La Guardia, 2013; Swanson & Fouda, 2010). It was presented to the client as a way to begin a discussion about how she felt when she was at her best without the pressure to conform to personal or professional influencers such as supervisors, co-workers, friends, family, or society. It was believed that identifying these aspects of her personality would help Hillary see herself from a different, more positive perspective.

Introduction of MBTI®
The MBTI® was developed by Katherine Briggs and Isabel Briggs Myers based on the work of Carl Jung. “The essence of the theory is that much seemingly random variation in behavior is actually quite orderly and consistent, being due to basic differences in the way individuals prefer to use their perception and judgment” (Briggs Myers, McCaulley, Quenk, & Hammer, 2003, p. 3). The MBTI® Form M was introduced as a way of helping the client identify preferences in four distinct areas: where one gets energy (Extraversion [E]/Introversion [I]), how information is taken in (Sensing[S]/Intuition [N] – identified as N because Introversion uses the letter I), how decisions are made (Thinking [T]/Feeling [F]), and how we relate to the outside world (Judging [J]/Perceiving [P]). In combination there are sixteen distinct personality types.
and because the instrument looks at personal preferences as we see our optimal self, there are no *right or wrong* answers. The 93-item self-reporting instrument takes approximately 25 minutes to complete and was completed during a session. Validity and reliability testing on the MBTI® use the same standards that apply to all assessment instruments for educational and psychological testing instruments. Briggs Myers, McCaulley, Quenk, & Hammer (2003) note that a “*stratified random sampling procedure was used to collect the national sample . . . with a weighted sample being developed to approximate the U.S. population in terms of gender and ethnicity*” (p. 385). Internal consistency was tested using split-half reliability. The coefficient alphas for the four dichotomies were found to be statistically significant (.05) with both exploratory and confirmatory factor analyses of Form M demonstrating strong construct validity and internal consistency (Briggs Myers, McCaulley, Quenk, & Hammer, 2003). In addition, “*topographic mapping of brain activity patterns provide strong evidence for the biological basis of the dichotomies*” (Briggs Myers, McCaulley, Quenk, & Hammer, 2003, p. 219). It is important that the practitioner using the instrument be trained to do so and that the client be in the proper “mindset” to take the instrument so that they can respond to the questions from a “best self” perspective. This mindset increases the chance that the client will respond to the instrument without the pressures, responsibilities or obligations of outside influences. Once the results are tabulated, they were discussed with the client for the remainder of that session and a follow-up session.

**Client’s Results and Interpretation**

To guide the client in understanding the scope of her MBTI® results, it was important to help her understand that the MBTI® is not a personality “trait” measure and that it does not measure how much a client possesses a trait but rather measures preferences. “*An MBTI score that reports a person’s preference for Introversion over Extraversion, for example, says nothing about the person’s skillfulness in introverting or extraverting*” (Lawrence, 2009, p. 97). This was noted several times during the discussion about her preferences. In addition, it was explained that while Type can be helpful in understanding our innate personality, it is not the reason that we behave as we do since culture, environment, and relationships also impact our behavior. The client identified herself as preferring Introversion, Intuition, Thinking, and Judging as her four-letter Type code (INTJ). To help the client understand each of these preferences we reviewed them one at a time beginning with the first dichotomy of extraversion and introversion.

Individuals who prefer introversion get their energy from their internal world. They tend to be drained when socializing for long periods of time.
and need time alone to recharge. They also enjoy working alone or with a few people and think before speaking (Ancowitz, 2010; Kummerow, 2003). This related directly to the client’s comments about her experience with her supervisor when discussing ideas as well as her exhaustion in the workplace. The client confirmed that she most definitely preferred introversion and that the descriptions clearly defined her. The next dichotomy reviewed was sensing and intuition which focus on how we take in information. The client’s preference toward intuition means that the information that is taken in is processed more through a future lens. People in this category tend to be more general and look at how meanings fit together. They can be distracted or lose interest when asked to focus on the big picture. Hilary’s preference clarity indicated a very clear preference for intuition (25) and a very slight preference for sensing (1). It should be noted that these scores apply to how consistently Hilary prefers one half of the pair over the other and does not indicate ability, maturity, or development.

How we make decisions is represented by the third letter in the four-letter code and refers to thinking and feeling. Hilary’s preference for thinking indicates that she tends to be objective, analyzes pros and cons of a situation and is more attentive to ideas than to relationships. She noted that this preference may be one of the reasons for some of her difficulty in relationships at the office because “I tend to want only the facts and be logical without caring about how other people feel about things.” Lastly, the preferences of judging and perceiving were reviewed by first clarifying that the preference of judging does not mean that a person is a judgmental person but that they prefer order and structure in relating to the outside world. The client was able to relate to the characteristics of her judging preference noting that she often does make decisions too quickly and has very high standards to which she holds herself and others. She also noted that she prefers working on one project at a time and that one of the stressors of her career was constantly being given multiple tasks to work on all with the same deadline, combined with constant directions from her supervisor to prioritize everything. She was hoping to find a position that would provide the freedom to control her own schedule.

After exploring her selections, the client read the description of her combined preferences (INTJ) and was asked if the description was accurate and if there were any questions. The client then exclaimed “You mean I’m normal! There’s nothing wrong with me?” and began to cry. While this is not a typical reaction, it demonstrated how valuable and empowering this instrument can be in guiding our clients to a partial understanding of self and, for Hillary, served as “a starting point to a larger con-
versation about how [her] natural gifts and talents could be applied to the world of work” (Notaras Schimmel, 2014, p. 43).

We explored that she really enjoyed challenges, valued knowledge and dealing with concepts and that she also needed structure. She was also able to see how others may see her as being private and reserved and unwilling to compromise or change and how this may impact her relationships in her working environment.

**Next Steps and Reflection**

The results of the MBTI® allowed the client to look at her career choices from a more informed and enlightened perspective and one that took her preferred type and comfort level into consideration. As we explored new options, Hillary determined that she wanted a position that provided more flexibility to control her own schedule, an increased opportunity to finish one project before moving on to the next one and entailed a high degree of independence and self-direction without excessive requirements for socialization. This information not only helped the client reframe her resume from a chronological format into one that emphasized her skill set but also changed the way in which she interviewed for a position. The client indicated that she was more aware of the office environment during the interview process to determine whether the environment was too tumultuous for her comfort level as well as paying close attention to the dynamics and interactions of the people in the prospective workplace. In addition to adjusting her resume and paying specific attention during the interview process, the client also noted that her increased awareness of self empowered her to look at a variety of careers she had not previously considered.

Understanding how people might perceive her in the office created the opportunity to discuss working on being less critical of others, as well as herself, and being more flexible and less rigid. Hillary was able to identify how she tends to over-intellectualize and can sometimes act impersonally. She indicated that she loses patience with people when they “don’t make sense” and began to understand the need to consider the perspective held by the other person. The information also helped her look at how to handle the social element of her career, as well as her personal life. Hillary recognized that while social elements of work cannot be avoided, they can be managed. She realized that before engaging in social events at the office she needed to ensure time alone both before and after the event. This was something that she could apply to her personal life as well by building time into her schedule to allow for the necessary down time before and after going out so that she could re-energize. She also noted that in the day-to-day work in an office, she could make time to chat with co-workers for limited amounts of time and
uses earplugs to lower the noise level when necessary. Hillary was able to find another position in a different field and has been successful in managing her relationships in the office as well as in her personal life. In a follow-up session she noted that she is more aware of how she comes across to others and pays attention to the need for others to be heard. She now also socializes with her colleagues more frequently at work because she realizes that she can manage her energy levels in a different way. In addition, she shared that she is socializing more in her personal life because of what she learned and is less critical of her need for quiet time. Overall, the client felt that learning about her Type empowered her to take better care of herself and has made a positive and significant impact on her life.

**Things to Consider**

Type “refers to a consistent pattern of activity, a stable and mutually-reinforcing set of interrelated characteristics to which a person is drawn toward” (Nardi, 2011, p. 11). As with any instrument, there are ethical principles that must be considered in the administration and interpretation of the MBTI® results. An individual properly trained in the use of the Indicator would ensure that taking the Indicator is voluntary and that the results are confidential. In addition, it is important that the counselor meet with the client to discuss the results, answer any questions or clarify anything that is confusing. It is unethical to simply have someone take the instrument and self-interpret the results. As with all professional instruments, it is important that the individual administering the Indicator properly prepare the client for what to expect in taking the MBTI® as well as in how it will be interpreted and what the interpretation means. The Indicator also does not assess aptitude or whether one will be successful in a particular career. There are people of all Types in all careers and these individuals are successful.

When working with clients, they often would like a right or wrong approach to their type and are sometimes confused when they share aspects of the opposite in a pair. It is important to help them understand that we have aspects of all of the dichotomies as part of our personality and we are capable of “flexing” when necessary. This flexing might not be comfortable, but we are able to do so depending on the situation. Consider our preference for using our dominant hand. If you have a preference for using your left-hand and sustained an injury to that hand, you might not feel comfortable using your right hand, but you could if you needed to do so. The same is true for type.

When interpreting the results of the MBTI®, it is important to remember that the client is the expert on their four-letter type. Having the client read the full description of their four-letter type and confirming with
them that the result is accurate is important. If the results are between
two four-letter types, it is often helpful for the client to read both types
and determine if one is more accurate than the other.

Self-awareness and self-reflection play an important role in our lives
both personally and professionally and crosses many disciplines. From
counseling to psychiatric nursing, to helping those with traumatic brain
injury, the importance of understanding self has a long history in the
professional literature. For counselors, personal self-awareness as well
as guiding clients to their own self-awareness is a core value of the
profession (Hansen, 2009; Pompeo & Levitt, 2014). The MBTI® can be
a useful means of helping a client understand themselves and how they
relate to the world.

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A SOCIAL COGNITIVE PERSPECTIVE on ASSESSMENT in CAREER COUNSELING: The Case of Tiodore by Ijeoma Ezeofor and Robert W. Lent

This article illustrates how career counselors operating within a Social Cognitive Career Theory (SCCT) framework might use assessment in their work with career clients. We begin by providing a brief description of Tiodore, a young adult client seen for career choice counseling. We summarize some SCCT assumptions and constructs that helped guide the counselor’s work with him, including the career assessments that were employed. We then discuss how assessment was integrated into career counseling and reflect on how, from an SCCT perspective, assessment results can be used as a catalyst for career exploration and decision-making activities.

About Tiodore
Tiodore was a client seen by the first author at a college counseling center. To safeguard his identity, his name and biographical information were changed. Certain features of the case were also altered in order to emphasize the use of social cognitive procedures. Tiodore was a twenty-one year-old Black, heterosexual male, born in Liberia during the time of a civil war. He immigrated with his aunt to the US when he was three years old, rejoining his father and mother, who were already in the US working as a nursing assistant and pharmacist, respectively. The oldest of four children, Tiodore had two younger sisters and a younger brother. At intake, he was a first-semester sophomore at a four-year college, majoring in mechanical engineering.

Tiodore sought assistance because he was unsure about continuing on the career path as an engineer. He was eventually seen for seven sessions over the course of three months, with one or two more sessions planned. During the first session, Tiodore reported that he had decided on a career in mechanical engineering after viewing a career catalog provided to him by his high school counselor. He had enjoyed playing with construction toys while growing up and believed he had good mechanical skills and would enjoy hands-on job activities. In addition, Tiodore felt at the time that a career as a mechanical engineer would allow him to return to Liberia and serve the underprivileged population there. Since declaring
his major, he had completed some engineering courses and done well in them. However, in the few months prior to his coming to career counseling, he had begun to feel that he needed to find a new career path that would guarantee his ability to help people in Liberia.

Tiodore was aware that he could be helpful in Liberia as a mechanical engineer but he had recently joined a mentorship program at the start of the semester in which he mentored local high school students. This experience had reignited his desire to work directly with people. He explained that he had always enjoyed helping others and regularly assisted his siblings with various issues. He had begun to feel that, though a career as a mechanical engineer would allow him to earn a comfortable salary, it would not fit his current plan to directly help underserved persons in Liberia. Although mechanical engineering had lost much of its appeal to him, Tiodore was unsure what else he might want to do. He had wondered about going to medical school but decided he had no interest in this field.

Tiodore said he spent a considerable amount of time researching mechanical engineering after first learning about it and deciding that he would pursue this career. He did not know much about the world of work and hoped career counseling would help him expand his knowledge of different career options. Tiodore said that he liked to have lots of information and required lots of time when making important decisions. He commented that part of his problem was that he did not know enough about the breadth of careers that existed. He wanted to identify the correct major now so as not to waste time. He also identified a desire to be a good role model to his younger siblings as part of his motivation to find the right career.

Although Tiodore had never returned to Liberia after immigrating, he felt pulled to return there, a goal supported by his parents. Tiodore’s parents were, however, hesitant about his decision to pursue mechanical engineering because they worried that job opportunities for mechanical engineers would be limited in Liberia. They had encouraged him to pursue a career in the health sciences, as everyone in his family, including his parents, were in health-related occupations. They told him that there would always be a need for health professionals. Despite their disagreement with his major, Tiodore said he had a good relationship with his parents. After arriving at a mutual agreement on the goals of counseling, the counselor used several assessment methods to help Tiodore broaden his awareness of career options both generally and in relation to his plan to return to Liberia. The assessments were designed to help Tiodore clarify his career interests, values, and skills. The counselor then helped Tiodore to consider how these aspects of his work personality might line
up with various altruistic work options in Liberia. Information-gathering activities were then used as a prelude to the next steps of arriving at, and implementing, a tentative decision.

**Social Cognitive Career Theory**

Before discussing the assessments used with Tiodore, it may be helpful to take a brief detour to summarize some of SCCT’s central constructs and assumptions. SCCT is comprised of five segmental models aimed at understanding career interest, choice, and performance (Lent, Brown, & Hackett, 1994), career satisfaction (Lent & Brown, 2006), and career self-management processes (e.g., career exploration and decision-making) (Lent & Brown, 2013). The theory proposes that these five aspects of career development are facilitated by certain social cognitive, environmental, and personality factors. Based on Bandura’s (1986) general social cognitive theory, SCCT assumes that the core constructs of self-efficacy, outcome expectations, and goals enable people to exercise some degree of agency, or self-direction, in their career development. It also assumes that environmental considerations, such as supports and barriers, can aid or limit the exercise of personal agency.

Self-efficacy refers to people’s beliefs about their capabilities to perform particular behaviors or courses of action (Bandura, 1986). These beliefs differ depending on the particular work or school domain and activity. For example, one individual may have strong self-efficacy beliefs regarding teaching and writing, but weak beliefs regarding his or her ability to solve math problems. Outcome expectations are beliefs about the consequences of performing different activities (Bandura, 1986). For example, if one were to pursue teaching, he or she might expect to achieve such outcomes as social approval. According to Bandura (1999), self-efficacy and outcome expectations are acquired and maintained via four information sources: personal performance accomplishments, modeling (i.e., observing others’ performances), social persuasion, and physical and emotional states, such as anxiety.

Goals refer to people’s intentions to engage in particular behaviors or courses of action (Bandura, 1986). They can be broken into choice goals, that is, goals about the pursuit of specific types of activities (e.g. “I want to major in engineering”) and performance goals, which involve the level of performance one wishes to achieve (e.g. “my goal is to get an A in my engineering class”). From an SCCT perspective, people tend to become interested in, and set goals to pursue, school and work activities that are consistent with their self-efficacy and outcome expectations. For example, interests in engineering are likely to follow from the beliefs that one has the skills to succeed in this domain (self-efficacy) and that a career in engineering will fulfill one’s values (outcome expectations).
Whether this interest leads to the goal to pursue engineering, and whether this goal is put into action, will also depend partly on environmental factors, such as one’s access to resources that promote goal pursuit (e.g., family and financial support) and the presence of barriers (e.g., discrimination) that can impede it.

Because, over time, people may be presented with new information about their abilities, potential outcomes, supports, and barriers, the choice process often remains fluid even after initial career decisions have been made, which was the case for Tiodore. An individual may, for example, receive performance feedback that bolsters or lowers his or her self-efficacy at particular career-relevant activities. Or he or she may learn that a particular career option could lead to certain previously unappreciated positive or negative consequences, leading to a reconsideration of this career path. The dynamic natures of self-efficacy, outcome expectations, and goals – and the types of learning experiences that inform them – have implications for career assessment and counseling, particularly for efforts to broaden the school and work options that people are willing to consider (e.g., see Brown & Lent, 1996; Lent, 2013b; Lent & Fouad, 2011). Readers may wish to consult other sources for a more thorough introduction to SCCT (e.g., Lent, 2013b) and its application to diverse client groups (e.g., Lent & Sheu, 2010; Lent, Morrison, & Ezeofor, 2014).

An SCCT-Informed Assessment Approach with Tiodore

Tiodore wished to make a career choice that would address his desire to help people in Liberia in some way. Though he had initially considered a career in mechanical engineering, Tiodore had recently questioned this choice, concluding that it would not be the most satisfying way for him to serve others in Liberia. To aid him in considering a wider range of career options, the counselor used four types of assessment, two formal (the Strong Interest Inventory and the Work Importance Profiler) and two informal (a vocational card sort and a discussion-guided review of ability information). It was explained to Tiodore that these assessments were selected to learn more about his interests, values, and skills, and to use this information as a means for gathering and weighing career information.

Interest Assessment

At the end of the first session, Tiodore was assigned the Strong Interest Inventory (SII; Harmon, Hansen, Borgen, & Hammer, 1994) to complete in advance of the next session. Given his age and very limited work experience, the counselor was not surprised to see that Tiodore’s measured interests appeared to be still in flux, though some differentiation was evident. His highest General Occupational Themes were Social (in the moderate range), followed by Investigative and Enterprising, which were
quite a bit lower. The lowest themes were in the Realistic, Conventional, and Artistic domains. On the Basic Interest Scales, Tiodore’s highest scores were in social sciences (S), counseling and helping (S), athletics (R), and politics and public speaking (E). His lowest basic interests were in writing and mass communication (A), computer hardware and electronics (R), office management (C), and sales (E). On the Occupational Scales, Tiodore’s interests were most similar to male social workers, landscape/grounds managers, and farmers/ranchers; they were most dissimilar to medical illustrators, English teachers, and physicists.

Tiodore’s scores on the SII personal styles scales were in the midrange on work style, learning environment, and leadership style, suggesting roughly equivalent preferences, respectively, for working alone versus with others, learning by doing versus through formal means, and directing others versus doing the work himself. On the risk-taking dimension, Tiodore displayed a clear preference for playing it safe and making careful decisions and, on the team orientation dimension, his scores suggested a preference for working on teams and collaborating on team goals. Two sessions were spent interpreting and discussing the results of the SII. The six Holland themes were introduced to Tiodore and he was then encouraged to describe what he expected his measured interests to reveal, prior to a more formal interpretation. Tiodore guessed that he would be highest in the Conventional and Realistic themes because he liked structure and working with things and did not enjoy dealing with abstract concepts. However, he was not surprised by the discrepancy between his guess and his actual results and reported that his Social theme score made sense to him given his desire to help people. As he and the counselor discussed the Basic Interest Scales, Tiodore highlighted athletics, social sciences, and entrepreneurship as interests that resonated with him. During the formal interpretation of his results, the Social theme running throughout the SII’s scales was discussed, along with other notable patterns, such as an affinity for hands-on, physical, and outdoor activities.

Modified Vocational Card Sort
As a complement to the SII, the counselor followed up with a modified card sort. In particular, she had Tiodore sort a card deck consisting of occupational titles aligned with the six Holland themes (15 cards per theme) into three piles: (a) “might choose if I thought I had the skills”, (b) “might choose if I thought it could lead to things I value”, and (c) “wouldn’t choose under any conditions.” The first two piles reflect self-efficacy and outcome expectations, respectively. Tiodore was asked to think aloud during the sorting process, allowing the counselor to engage him in discussion about the bases for his choices (see Brown & Lent, 1996). This card sort revealed two interesting patterns. First, several
Social-themed titles were sorted into the self-efficacy and outcome expectation piles, with further discussion revealing that Tiodore did not know much about these occupations. Second, engineering and several other Realistic-themed occupations were sorted into the outcome expectations pile – a fact that the counselor noted for later discussion.

**Work Values**

Particularly because Tiodore’s anticipated departure from mechanical engineering appeared to be based largely on values considerations (e.g., the desire to fulfill altruistic values), it seemed helpful to do a values assessment. The counselor showed Tiodore how to access the Work Importance Profiler (WIP; U.S. Department of Labor, 2002), a free tool available on the O*NET website. The WIP is based on the Minnesota Importance Questionnaire, a well-validated device for assessing values. This measure confirmed Tiodore’s orientation toward social service; it and the ensuing discussion also revealed a desire to do work that could provide social recognition, security, and a feeling of accomplishment.

Together, the interest and values assessment led to a useful discussion about the many ways in which one can help others. Tiodore had been assuming that engineers do not really help others in any obvious way; he had mainly been attuned to how this career path might benefit the engineer (e.g., stable employment, good compensation) and also believed there would be a limited market for mechanical engineers in Liberia. He was responsive to the counselor’s perspective that engineers add value to society in many ways, for example, via the design of bridges, medical devices, and communication systems. While he found this perspective helpful and was willing to gather more information about how engineers help others, he found these benefits less immediate and potentially satisfying than direct contact with others, for example, through teaching or counseling.

**Skills Assessment**

Skills assessment drew upon both objective past measures of Tiodore’s performance (e.g., patterns of grades in high school and college coursework, SAT scores) and informal feedback from family members and friends. The review of academic data suggested that Tiodore often did well in STEM-type courses and less well in courses requiring written communication. The counselor also had him ask at least three family members or friends to rate, on a scale of 1-10, his social skills in situations involving him teaching or helping others. He was encouraged to ask about the basis for their ratings and worked with the counselor beforehand to practice listening non-defensively if he received uncomfortable feedback (see Brown & Lent, 1996). He also asked them what ways they could imagine seeing him being of help to other people. Tiodore wound
up getting ratings from five significant others, receiving an average score of 7. The feedback suggested that he was often experienced as offering helpful advice and support to others, though he was also sometimes seen as a bit judgmental and opinionated, especially if he felt that the individual he was trying to help was not being logical. In terms of service to others, some of the suggestions included counseling, teaching, and building or constructing things.

**Integrating the Assessment Data into an SCCT Perspective**

Counselors operating from an SCCT perspective may use more traditional (e.g., SII) as well as less formal approaches to assessment (e.g., interviewing significant others). Informal assessment can offer creative ways to identify particular targets for counseling, such as client beliefs that may be impeding the development of interests or environmental conditions (e.g., social messages) that may be hampering the pursuit of choice goals. SCCT-based counselors also look for discrepancies between interests, values, and skills. Assessment offers a convenient tool for uncovering and lessening such potential blocks to career choice-making. In Tiodore’s case, he still felt moderately self-efficacious at mechanical engineering and had some interest in the field, but believed that it would not be consistent with his humanitarian values, particularly the desire to help people in Liberia. This perceived conflict between his self-efficacy and interests, on the one hand, and his values, on the other, was making it difficult for him to continue in mechanical engineering.

Assessment allowed Tiodore to step back from his immediate dilemma – whether to continue in engineering or pursue something new – and take a fresh look at himself and his options. The interest assessment suggested that Tiodore’s interests were still a work in progress, though there was evidence of interest in social and, to a somewhat lesser extent, enterprising, and realistic occupations and activities, particularly in relation to activities that could be performed outdoors (e.g., farming, landscaping) or that involved working in teams or providing direct services to others (e.g., social work). Objective performance data confirmed quantitative skills that would be consistent with engineering fields, and informal skill assessment suggested that significant others saw Tiodore as having potential to work with and assist other people, either by offering guidance or using his hands-on, mechanical/building skills.

Tiodore held positive outcome expectations about helping people in Liberia, even though he was unsure what form such helping might take. For example, he anticipated that his parents and siblings would admire him and that he would approve of himself, if he were to pursue such a path. However, he did not have strong beliefs about his efficacy at social service activities which, he realized, could be because he had relatively
little work or volunteer experience and very limited knowledge of social or humanitarian occupations. A potential switch to an unknown field and country was also complicated by Tiodore’s tendency to minimize risk-taking and to select relatively safe options after researching them thoroughly.

**Next Steps and Reflections**

Tiodore was very open to using the assessment phase of counseling as a springboard to gathering more information about work options that could further his plan to help people in Liberia. As noted, he liked to *look before leaping* and realized that his initial choice of mechanical engineering was aided by careful exploration of this field – though, at the same time, his choice had been made in the absence of information about alternative fields. He had sacrificed breadth for depth of exploration. The counselor helped Tiodore to develop a plan for exploring additional career paths, though he was anxious not to *waste time* because he had already invested more than a year in studying engineering.

The next steps with Tiodore involved gathering information via the O*NET and informational interviews as well as gaining some relevant direct experience in a social service capacity. Tiodore researched social work, farming, construction, aid relief and other fields that were suggested by his assessment results and discussions with the counselor and others in his social network. He also explored the Peace Corps and non-governmental organizations offering humanitarian aid in Liberia and other African nations. He particularly explored the types of work skills they needed. Such information addressed both outcome expectations (e.g., what could these options lead to?) and sources of self-efficacy (e.g., exposure to occupational models). Since direct performance feedback is a particularly compelling source of self-efficacy, Tiodore also sought out volunteer experiences providing tutoring and mentoring to high school students and visiting with elderly residents in a nursing home. He also decided to *stop out*, at least temporarily, from engineering, and to declare a general studies major, which would allow him to experiment with social science and other coursework.

Subsequent counseling sessions were spaced out so as to be able to help Tiodore process his ongoing information-gathering and volunteer experiences. At this writing, he has not finalized his next educational/occupational move but he reports that he is leaning toward pursuing social work. His volunteer experiences have bolstered his sense of efficacy at helping others in person-to-person interactions and his occupational exploration has suggested ways in which his values (or outcome expectations) can be fulfilled through social service occupations. On the other hand, he has also learned that his technical and mechanical skills could come in very
handy in benefiting Liberians. The counselor’s next steps with Tiodore will be to perform a modified balance sheet activity, to help him compare and contrast his current most likely occupational options along dimensions suggested by his values assessment (e.g., ability to serve others, gain social recognition, find stable work). She also plans to help him consider the resources (e.g., social, financial, educational) he would need to pursue these possible paths, what barriers he might encounter along the way, and what coping options he has or could develop. More information about these balance sheet and support and barrier assessment methods can be found in other sources (e.g., Brown & Lent, 1996; Lent, 2013b; Lent & Fouad, 2011). The latter are viewed as key aspects of career-life preparedness from a social cognitive perspective – that is, assisting clients to anticipate and prepare for situations that can hamper their career goals (Lent, 2013a). They are also viewed as particularly useful ways to help clients translate their interests and goals into actions. Once Tiodore makes his next decision, the counselor will explore with him how to implement it, for example, by arranging referrals to academic advisors and field placement coordinators.

**Final Thoughts**

We presented a case study showing how assessments can be used in career counseling from an SCCT perspective. Our client was Tiodore, a college student looking for assistance with an anticipated change in his major and with an exploration of occupational options that would allow him to help others in some way in Liberia, his family’s ancestral home. The counselor respected his decisional autonomy and was careful not to convey an impression that his wish to help others in Liberia was a reflection of youthful idealism that would eventually blow over. In addition, she respected his cultural and family background, encouraging him to seek input from his significant others, and to bring this information into counseling during the course of his career exploration.

SCCT-informed career assessment is certainly not unique in its respect of the client’s agency or in its sensitivity to his or her culture and family norms. In addition, it shares with other approaches to choice counseling a concern with helping people to identify good-fitting options that are likely to lead to job satisfaction and other positive outcomes. It differs, however, in its use of assessment to clarify the cognitive and social factors that lay behind interests and choices; to help clients broaden the range of options from which they may choose (this sometimes involves revisiting earlier, foreclosed options); and to assist them to marshal supports to sustain their choice behavior and to anticipate and prepare for barriers that can derail it.
The use of assessment was an important part of career counseling with Tiodore. Among other things, it corroborated his emergent interests in the Social theme and provided Tiodore a list of careers options he had not previously known about or considered. It also helped to clarify the role that self-efficacy and outcome expectations were playing in his career planning. Because Tiodore’s decision-making style was very methodical, he appreciated having the structure that the assessment activities provided in order to guide his information gathering and decision-making.

References


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NARRATIVE ASSESSMENT TOOLS for CAREER and LIFE CLARIFICATION and INTENTIONAL EXPLORATION: Lily’s Case Study by Mark Franklin, Rich Feller, and Basak Yanar.

Narrative and storytelling-based methods for career counseling, advising and coaching are gaining more attention as the career management field shifts from traditional matching assessments to storytelling approaches and life design (Savickas, 2012) principles. Narrative assessment offers an opportunity to fully engage clients by honoring their past, and building their psychological capital (Luthans, Youssef & Avolio, 2006) necessary to navigate a life of transitions. Narrative methods, tools and techniques to bridge theory and practice have been emerging with greater frequency from Cochran’s (1997) textbook to Brott’s Storied Approach (2001), and from Severy’s (2008) techniques to Stebleton’s (2010) careful analysis of the strengths and limitations of narrative methods. One such narrative approach, the CareerCycles method of practice, with its conceptual model, suite of tools and holistic definition of “career” comprehensively includes the many human and systemic variables shaping a client’s experience. This method of narrative assessment also provides a concrete framework and set of practical and engaging tools to support the career counselor and specialists’ ability to engage in useful practice.

Introducing a career counseling social enterprise that uses a narrative method of practice

A jobless recovery, corporate reorganizations and problematic under-employment among college graduates create challenges for clients. Yet CareerCycles, a busy career management practice, continues to attract clients seeking to make career choices that lead to increased meaning and purpose in their lives. Don, a CareerCycles client, captured what many clients feel as they search for their next steps, “I don’t want to just job search and run around with my resume, I want to know what I want to do with my life.” Don, a 55-year old sales manager, was recently terminated due to a business downturn. Career counselors and specialists know that Don isn’t alone. Scanning the daily headlines, job loss and transition are increasingly prevalent. What’s different is that Don, like many career management clients, is starting to see termination, disengagement or
instability as a blessing in disguise (Zikic & Klehe, 2006). Like many clients, at first Don was distressed about his situation and future employment prospects, though after engaging in career counseling Don began to identify and get excited about future possibilities more aligned with his emerging interests. He had been interested in horticulture, and as a means of exploring this career interest he traveled to Scotland to spend time at a world renowned ecovillage, which was a very positive experience for him. With the help of narrative assessment methods, career changers are finding opportunities to make career and life choices that finally “connect their self-concepts to work roles, fit work into life, and make meaning through work” (Hartung, 2013, p. 11).

This article reports on a suite of narrative career assessments grounded in a method practice created within a successful private career management practice based in Toronto, Canada. The assessment suite helps clients tell and transform their career and life stories so they can make choices leading to greater possibilities. Yet the question remains: how do clients thoughtfully and successfully make these choices? Amundson’s (2003, 2008) notion of a backswing provides an apt metaphor for the narrative process. Sometimes the best way to rebuild energy is to go backward to build momentum. Whether we are swinging a golf club, a broom, or a hammer, there is a need to have a short, focused backswing to build energy. For someone who is unemployed, this might mean a review of past accomplishments and the identification of transferable skills. Of course, a great backswing doesn’t amount to much unless there is also a clear focus on a goal and follow-through afterward. (Amundson, 2003, pp.149-150) In career and life, taking a backswing means reviewing the road one has taken to get to the present moment. Through this reflection, clients can assess what has been learned and gained in order to refocus and move forward. The backswing metaphor is relevant during periods of unemployment, career disengagement and economic instability when people have a natural tendency to withdraw, often losing confidence and momentum. Asking clients to reflect before formulating career plans and engaging in job search activities does not work without creating readiness and internal motivation to move forward (Feller, 2014).

**Career and Life Clarification as “The Backswing”**

The backswing metaphor closely matches the first process within the CareerCycles narrative method of practice (Franklin, 2014; Zikic & Franklin, 2010), used successfully with thousands of clients who present with important questions about what’s next for me? The CareerCycles method of practice comprises a suite of tools including a practitioner methodology, the Who You Are Matters! interactive discovery game, and an online storytelling application. Promising results of an outcome study (Franklin, Yanar, & Feller, in progress) are moving this method into the
realm of evidence-based practice.

In the CareerCycles method of practice, clients are accompanied through an experience of telling career and life stories as a form of positive, focused, self-reflection (Poehnell & Amundson, 2011). From clients’ stories, elements are gathered and organized into a written document called a Career Sketch. This narrative Career and Life Clarification (CLC) process, like a backswing, helps to ensure that forward motion is effective and satisfying. The CareerCycles CLC process reminds clients of who they are and helps them to discover hidden future possibilities. One CareerCycles client affirmed that, “The backswing metaphor makes total sense to me. It made sense for me to step back and see what decisions I made in the past to see what I’ve cared about all along.” This CLC process is followed by the second process of the CareerCycles method of practice called Intentional Exploration. The complete CareerCycles method of practice shown graphically in Figure 1 illustrates the relationship of the CLC process and the Intentional Exploration with the client’s initial question and the use of key narrative tools. Forty documented interventions within those two processes include working with tools, client handouts, and a training program. Each intervention includes a description of its use, expected outcomes, career professional actions, and resources, in order to holistically and thoroughly support practitioners in their work with clients.

A Client’s Perspective: Lily’s Case Study

When she first came to career counseling, Lily, 23, was working as a retail store manager in the apparel sector. She had been in the workforce for two years after graduating with a university degree in cultural studies, but found herself dissatisfied. “I want work that’s more fulfilling, engaging, and intellectually stimulating,” Lily shared, referring to her retail work. Many people who find themselves in “career pain” assume there’s some magic test that will tell them what to do next. In the authors’ experience, career tests and assessments often leave clients with lingering unanswered questions: “So what?” and “Now what?” Lily was referred to CareerCycles through personal contacts. Like many clients, she too, did not know what to expect from a career management service. After a first session in which she experienced the narrative approach, Lily began to share her stories and started to construct her Career Sketch with the eight elements as shown in Figure 2. Working collaboratively with the career professional, she came to understand the value of the narrative approach for her situation and chose to continue in a five session program. Positive, focused, self-reflection using a narrative approach helps clients learn what they want from their lived experience. Job loss, career dissatisfaction, business collapse, academic failure, a relationship breakdown are
Figure 1. CareerCycles graphical model
all emotionally significant experiences. When expertly debriefed, clients gain clarity around what they do and don’t want. This clarity makes it easy for clients to identify their desires moving forward. From there, clients can be supported to find possibilities that align with their desires. To enact the paradigm shift already occurring within the career management field toward more narrative or life design approaches (Savickas, 2012), a consistent framework is needed to elicit an individual’s career and life story, gathering relevant data and organizing it into a concrete and user-friendly aggregating document.

The goal is to come up with the two essential building blocks of a client’s individualized process: a reliable and complete snapshot of who the client is today, and a list of future possibilities he or she is most curious about before they begin Intentional Exploration. During this process, Lily shared, “I felt anxious and stressed, and wanting direction. I knew there was something else out there but I didn’t even know where to go to figure it out.” In the CareerCycles method of practice, clients are asked to name their career question. Lily asked “What direction might be good for me longer term, and what can I do in the shorter term that gets me out of my present position, and makes some more money?”

**Career and Life Clarification: Life Timeline and Storytelling**

Like most people in transition, Lily wanted a quick answer and solution so that she could move forward in her career. The paradox is that to move forward in a satisfying direction, clients first need to step back. In the CareerCycles method of practice, the client is asked to create a timeline of their lives, either manually or using an online storyteller application. When using the online application, the client constructs a timeline of their career and life stories, and then the storyteller prompts them with context-sensitive questions about each story. Short responses to the questions are added automatically to the client’s growing and interactive Career Sketch. This step highlights what clients have liked and learned in each chapter of their story. “Walking through my story gave me the freedom to see that anything was possible. There were no bad or impossible ideas,” Lily shared after completing this step. Like many clients, Lily couldn’t see how her desires and the skills previously developed could transfer into other possibilities. Lily possessed strong managing, teamwork and client service skills, but exclaimed that, “I didn’t realize that using these skills, I could do something really different.”

Beyond evidence from case studies where clients tell their story to gain insight, research on positive emotions further validates this approach and its influence on job search outcomes (Burger & Caldwell, 2000; Côté, Saks, & Zikic, 2006; Stevens & Seo, 2013; Turban, Stevens, & Lee, 2009). Experiences of positive emotions and moods such as excitement...
and enthusiasm play an important role in successful job search (Côté et al., 2006). In the CareerCycles client experience, when clients tell their stories focusing on what they liked and learned, they amplify positive emotions, get excited and enthusiastic, and successfully find ways to enrich their careers and lives.

**The Significance of Feedback**

Encouraged to ask for feedback Lily approached a few trusted allies. Responses from her acquaintances, co-workers and friends were reviewed and debriefed with the CareerCycles professional. The new and relevant content was entered into Lily’s Career Sketch. Lily remarked that, “It made me feel great hearing what others said about me, and knowing there were options. I didn’t realize there were so many possibilities. I had the power within me to do those things and didn’t have to go to back to school.” Feedback is a significant step of the narrative method within the CLC process. These insights provide a fresh perspective of the client’s strengths and possibilities, which has the effect of reducing negative thoughts and feelings, and generating new possibilities.

**Writing a Career Statement…and Then Living It**

After Lily and the career professional collaboratively gathered and organized relevant data from her story, she was encouraged to draft her Career Statement. A Career Statement is a brief, positively worded statement highlighting seven key areas covered in CLC process: desires, strengths, personal qualities, natural interests, influences of other people, assets, and possibilities you’re curious about. For further clarification, see Lily’s Career Statement in Appendix 1.

The CareerCycles team of career professionals repeatedly observes how much a client’s mindset influences career search outcomes. Clients with a worried, anxious or negative mindset typically find clues that reinforce their worries, whereas clients whose thoughts and feelings center around hope, optimism or faith in good outcomes find clues that help them discover new opportunities. A positively worded Career Statement can help nudge clients in the right direction, especially when an experienced career professional compassionately confronts the client’s negative thoughts and reframes them into empowering thoughts within their Career Statement.

In Lily’s case, she verbalized her internal self-talk as, “other people are much better than I am, in writing and other things.” This phrase was added to Lily’s Career Sketch in the Thoughts & Feelings section so she could see it written in black and white. Working collaboratively, Lily and the career professional rewrote the self-talk as, “I’m expressive, creative and work well with people and have faith in myself.” Lily
### Career Sketch

**DESIREs**
- What you want & what's important to you (DD)=deeper desires
  - Organization that runs well, organized, stable
  - Fulfilling, engaged, intellectually stimulating
  - More money! $16/hour
  - Treated with respect
  - Work with people at my level, more put together, collegial; an org that’s a big enough sandbox to play
  - Be in the arts world
  - Be a renaissance woman and make money from it, have variety or maybe intrapreneurial
  - A good place to live in.
  - Happiness
  - Creativity
  - Challenge/advancement which means I’ll be out of my comfort zone
  - Aesthetics
  - Results

**STRENGTHS**
- Skills & knowledge you want to use (D)=want to develop
  - Writing
  - Work with people
  - Being expressive, assertive, confident, think critically, analytical
  - Customer/client service
  - Teamwork
  - Multitasking, fast paced environment
  - Staying current
  - Managing people, delegating, giving direction
  - Mediating and resolving conflict
  - Attention to detail
  - Creative; “good eye”

**PERSONAL QUALITIES**
- Personality & how others describe you
  - I have a bit of a bite
  - Mature positive mindset
  - Put up my own obstacles. Can be lazy.
  - Adaptable, meticulous

**NATURAL INTERESTS**
- Emerging passion, evolving identity
  - Demonstrated interest in the arts: film, literature, fashion
  - Feminist literature and thought

**POSSIBILITIES YOU'RE CURIOUS ABOUT**
- INTERNAL to your organization
  - No!

**OTHER PEOPLE'S**
- Influence & your life roles
  - My mom wants me to have a direction; wants me to be happy, has funny ways of showing it
  - Family with lots of professionals, teacher, doctor, etc.
  - Mom's friend the graphic designer: variety
  - Sarah's sister Joanne, renaissance woman
  - Robert Munch meets Dr Seuss meets Shel Silverstein

**ASSETS**
- Education, Credentials, Experiences, Additional skills & knowledge
  - Cultural studies, BA, "a rounded education"
  - Experience manager retail, kids books
  - Fashion knowledge and experience, pattern work, stylist, costumes (high school)

**YOUR THOUGHTS & FEELINGS, GEMS & INSIGHTS:**
- Pressured, anxious, stressed, wanting direction.
  - Excitement, hopeful 5 out of 10 (though 3 or 4 when I am at work). Afraid.
was encouraged to notice her self-talk shift during the week, and began to replace her negative thought with the more positive one. This is an example of becoming aware and then becoming intentional with one’s thoughts and feelings, as depicted in the circular bands around the two main processes in Figure 1.

**Swing Forward – and Taking Inspired Action**

Armed with her Career Statement, Lily was ready to enter the Intentional Exploration process which comprises of watching for clues, taking inspired action and welcoming opportunities. The first step in this process, *watch for clues*, means to become attuned to both internal and external clues related to one’s Career Statement. Earlier Lily clarified that she wanted stimulating, engaging and challenging work in a business or corporate environment that would provide stability. An external clue came in the form of a suggestion from her mother that Lily speak with an acquaintance who worked at an advertising agency. Talking to the acquaintance was a good example of taking inspired action. Lily’s first internal clue was that she felt excited about taking inspired action. She summoned the courage to call her mother’s acquaintance at the agency and, much to her surprise, was offered a job interview for an account supervisor position. Several days later, the newly confident Lily received a job offer from the agency, which she felt comfortable accepting based on the new insights she had gained within her CLC process and forward movement into Intentional Exploration. The effectiveness of Lily’s reflective experience was in the rekindled energy, good feelings and positive mindset that flowed from the fun and engaging process of telling her story. This, and writing her Career Statement, made her intentional exploration—the follow-through—easier, and almost effortless, compared to the dread so many people attach to traditional job searches. In the CareerCycles team’s experience, when clients go through the CLC process they generate hope, optimism, confidence and resilience. Collectively, this psychological capital (Luthans et al., 2006) ultimately leads to more clarity and more satisfying career and life choices.

**Narrative Suite of Tools for Career and Life Clarification & Intentional Exploration**

Career counselors and specialists are hungry for practical tools that bring to life the theories and ideas that form the foundation of their professional training and personal experience. The CareerCycles narrative method of practice provides a framework for counselors and specialists, including practical and easy to learn tools and assessments. At the time of writing this article, over 250 career counselors and specialists across North America and Europe have been trained and licensed in this method. The suite of tools includes the following seven groupings:
1. The CareerCycles graphical model, Figure 1, acts as a roadmap for the client experience. For career counselors and specialists, it is a framework that guides practice and communication.

2. Career Sketch, Career Statement, Exploration Plan, Getting Feedback, and more than 20 other tools and worksheets to guide sessions and between-session tasks.

3. Who You Are Matters! is a group discovery experience in the form of a board game. Small groups play together to gain clarity, share narratives and write their own Career Sketch and Career Statement. The game provides a means to efficiently reach large numbers of clients within the CLS process. To date the largest group has been 125 players concurrently playing at 25 tables.

4. CareerCyclesOnline allows users to construct a timeline of their career and life, and debrief each chapter or story via an online storytelling experience. As clients debrief stories, their Career Sketch is constructed. They can then use the application to automatically create an editable Career Statement, and then use the Exploration Plan tool to create a plan for each of their priority possibilities.

5. An Administration Dashboard allows career counselors and specialists to launch and supervise any number of end user client accounts. The method of practice includes 40+ written interventions which engenders trust in clients that there’s a ‘method to the madness,’ and guides career counselors and specialists through the process.

6. A Learning Program divided into two levels is used to train career counselors and specialists and provides for initial learning and an ongoing playbook.

7. A definition of the word career enlarges the scope of the CLC process from job to life. It is used directly with clients to create a common understanding. Career is defined as: The full expression of who you are and how you want to be in the world. And, it keeps on expanding as it naturally goes through cycles of stability and change (Franklin, 2014).

Career Counselors and Specialists: Roles and Processes
Guiding a client, one on one, through the stories of their lives using the CareerCycles method of practice draws deeply on counseling skills, including active listening, probing, reframing, and empathy, genuineness, and unconditional positive regard, hallmarks of Rogers’ (1951) client-centered therapy. Many career professionals, who are not trained counselors have been trained in the CareerCycles method of practice and possess these skills. One does not need to be a certified counselor or have earned a graduate degree to work within this framework. The authors have seen career educators, certified coaches, job search coaches, academic advisors, guidance counselors, and HR professionals use the framework with confidence after training.
When the online tools are used, some of the more time consuming CLC process become automated, freeing the career counselor or specialist to focus on offering higher level support to clients (Hooley, Hutchinson, & Watts, 2010). In this case, the role of the career counselor or specialist can more easily be played by a trained and competent, though differently credentialed coach, educator, or advisor.

Another effective pathway into the narrative methodology is via the Who You Are Matters! Career and Life Clarification game. The game experience can be facilitated for one game table of four or five players or for multiple game tables, for example, a workshop setting of 25 concurrent players at five tables. In these cases, a CareerCycles trained and certified helping professional can effectively facilitate the group and introduce the online tools as a follow-up deepening experience. While counseling skills are an asset for game facilitators, skills in group facilitation, public speaking and curriculum delivery are more relevant for this task.

One other key role in the CareerCycles method of practice is on the front end of the experience, when a prospective client wants to learn more about the expected outcomes of the process. This is an important communication requiring excellent listening and probing skills, strong communication skills to explain the processes and outcomes, and an ability to contain the wide variety of emotional reactions that clients exhibit. In the CareerCycles practice, this role has been filled by career specialists with an associates or bachelor degree in human services or career and work counseling. Typically, in a 20 minute phone conversation, the career professional queries the caller about their career question or problem, and probes to find out more about triggers, future possibilities and recent career history. They do this while being mindful to constrain the conversation to a limited timeframe and reflect the caller’s feelings without the call becoming a full counseling session. In the authors’ experiences, any career management practice offering a free or low cost introductory session needs a well-trained helping professional to serve in this role.

Summary: From Backswing to Follow-through
In summary, to move forward in a career, a good backswing makes forward motion effective and satisfying, setting clients up for success. Below are four steps to the backswing of the CLC process:
1. **Name your question:** is yours a what now? question, or a I know what I want, now how do I get there? question. Be specific.
2. **Timeline your story:** what did you like and learn in each chapter of your story? Chapters can be early years, education, career portfolio, or recent past.
3. **Gather and organize:** examine everything from your story and cat-
egorize all elements into eight categories: a. Desires: What you want and what’s important, b. Strengths: Skills and knowledge you want to use, c. Personal Qualities: The kind of person you are, d. Natural Interests: Emerging passions. e. Other people’s influences, f. Assets: Education and credentials, g. Possibilities you’re curious about, h. Your thoughts and feelings about your situation.

4. **Write your Career Statement:** Highlight the most important elements of your story that you’ve gathered and organized. Summarize in a succinct paragraph. A career counselor or specialist can then help clients bring their Career Statement to life, using it like a compass to direct their Intentional Exploration following four steps, for each of their priority possibilities:

- **Watch for clues:** List all the reasons why you’d like this possibility and how it aligns with your Career Statement. Then list all the related external clues in the form of people you’ve met, organizations you’re familiar with, websites you’ve visited etc.

- **Take inspired action:** Name all the steps you want to take to explore this possibility more. These may be on your own, e.g. Internet research, or with others, e.g. *field research* to talk to people involved in similar work or activities.

- **Welcome opportunities:** Be open to seeing more of what you have been expecting. Sometimes unexpected opportunities arise, in which case, be prepared to pivot and fully explore these new opportunities.

- **Become intentional with your thoughts and feelings:** Career exploration can be exhilarating, and it can be scary or discouraging. Continuously realigning one’s thoughts toward the Career Statement, with a focus on desires, helps regenerate positive affect and engage the broaden and build phenomenon (Fredrickson, 2001).

Narrative assessment methods are gaining in popularity, and storytelling is helping to shift the career management field in an exciting direction. The work completed at CareerCycles and reported here builds on previous theoretical principles, delivers a promising conceptual framework, and utilizes a suite of engaging tools to help clients discover what to do with their life, rather than simply to complete a job search. Through the illustration of the eight elements of the Career Sketch, the writing of the Career Statement, and case study of Lily one can see the power of using practical tools and a tested framework to guide practice. This article holds the potential to inspire others to utilize narrative assessment to deliver concrete outcomes connected to psychological capital, while helping clients to complete career and life clarification as well as intentional exploration.
Appendix 1 – Lily’s Career Statement

I want to work in a creatively charged environment that provides me with stimulating work that does not merely busy my days, but keeps me engaged and challenges me intellectually and emotionally. I would like to work around others that are also passionate about their line of work and have the same spirited energy that I possess. I will most likely be working for a company, as I want to have stability that an organization can provide (as opposed to freelance work or starting my own company). I would like to be treated with respect, although I do not mind working long days, as I have a good work ethic and become absorbed in whatever project I take on. I am very interested in writing especially in relation to pop culture. I would also enjoy working beyond the brainstorming level by acting as a leader for projects. I am a great delegator, am incredibly organized and feign self-confidence. As long as my career offers me mobility and variety, as well as an opportunity for a life outside the workspace, I will be quite satisfied. The possibilities I’m most curious about are working in an advertising agency, or something to do with writing or journalism.

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USING the CAREER THOUGHTS INVENTORY in PRACTICE: Helping Clients Shift from Self-Doubt to Certainty
by Denise E. Saunders

The career decision-making process can be a difficult and challenging task for clients often accompanied by worry, uncertainty and self-doubt. In the current global economy clients may perceive their decisions to have even broader implications for their futures. That pressure and stress can further contribute to thinking that can serve to impede one’s ability to make career choices. The following article presents an overview of a model of career problem solving and decision making, Cognitive Information Processing (CIP), and a career assessment tool, the Career Thoughts Inventory (CTI), based on CIP that assesses negative career thoughts. A case example is shared to illustrate the use of the CTI in practice to help clients resolve thinking that can negatively impact their confidence, comfort, and effective engagement in the career decision-making process.

Cognitive Information Processing Model
Cognitive information processing theory (CIP) is an approach to career decision making that focuses on knowledge or information needed to make good, informed career choices and the way in which individuals process this information to arrive at a choice (Sampson, Reardon, Peterson, and Lenz, 2004). Key assumptions of CIP are that career problem solving and decision making (a) involve emotions and cognitions, (b) utilize both content and process knowledge, (c) draw on knowledge of ourselves and the world around us as well as the organizational skills to interpret and integrate this knowledge in a career decision task, and (d) are skills that can be learned. To characterize the key elements of the approach, the pyramid of information processing and the CASVE cycle are visually represented in figures to aid both counselors and clients in applying the approach to career decisions.

Pyramid of Information Processing
CIP utilizes the Pyramid of Information Processing (see Figure 1) to provide a framework for career counselors and clients (Sampson, Peter-
The pyramid consists of three domains: the knowledge domain that includes both self-knowledge and option knowledge, the decision-making skills domain and the executive processing domain. Self-knowledge is comprised of individual interests, values, skills, personality characteristics, and personal needs (e.g. family situations). Knowledge about options involves an understanding and awareness of occupational information such as work duties, responsibilities, salary, hours, advancement opportunities, program of study knowledge, employment options, and offers.

The decision-making skills domain relates to the skills necessary to utilize both information about self and options in order to arrive at a choice and is reflected in the CASVE cycle (see Figure 2, Appendix) consisting of phases of the decision-making cycle (Sampson et al., 1992). The CASVE cycle begins in the Communication phase in which individuals become aware of the need to make a choice. This awareness may develop as a result of emotion from increased stress, worry or frustration on the job and/or environmental circumstances or situations (e.g., an employee has been offered an advancement opportunity requiring relocation). As individuals become aware of the need to make a choice they move to Analysis-understanding of self and options. Following self-assessment and exploration of options the individual is ready to engage in Synthesis - expanding and narrowing their list of options.

Further understanding and clarification of individual characteristics and options allows individuals to engage in the Valuing phase – choosing an occupation, program of study or job. Once a choice is made individuals can follow-through with Execution of the choice – implementing the choice or taking action. Clients can mini cycle through the phases as they clarify knowledge about themselves and their options and can utilize this guide for current and future career choices.

The executive processing domain represents how individuals think about themselves as career decision makers and can involve self-talk, self-awareness and the control and monitoring of cognitions that impact career problem solving and decision making (Sampson et al., 2004). Thinking in this domain has a top down effect and can impact both positively and negatively clients’ awareness of their abilities to engage in the process, how accurately they view and interpret information about themselves and the world-of-work, and effective use of career decision-making skills.

Career Choice Readiness

Individuals seeking career assistance present with varying degrees of readiness to engage in the career decision-making process. In the CIP
approach, readiness is defined as “the capability of an individual to make appropriate career choices while taking into account the complexity of family, social, economic, and organizational factors that influence an individual’s career development” (Sampson et al., 2004, p. 68). Individuals with low complexity and high capability may be able to take advantage of self-directed resources and interventions whereas, individuals with high complexity and low capability may benefit from an individual case managed approach with a career counselor (Sampson, Peterson, Reardon, & Lenz, 2000).

Sampson, McClain, Musch, and Reardon (2013) stress the importance of helping clients understand how their characteristics and circumstances may have a negative impact on career decision making. Counselors are encouraged to consider clients’ unique circumstances and cultural origins of career decision-making barriers in determining readiness for career choice and how best to intervene. Enhancing career choice readiness, particularly for clients with lower levels of readiness, helps to maximize the usefulness of career counseling interventions for individual clients.

**Thinking in Career Choice**

When using a CIP perspective in career counseling it is important to understand and fully assess career thoughts as they can influence how individuals take action in solving career decision-making and employment problems (Sampson et al., 2004). CIP draws on principles of cognitive behavioral therapy. According to cognitive behavioral therapy, individual thoughts have an impact on how one understands themselves, others and the world around them (Beck, 1976; Beck, 2011). This cognitive model stresses that when individual perceptions are distorted and dysfunctional they can be distressing and impact individual problem solving and functioning. A developmental framework can be used to help clients understand how life experiences have led to the specific “automatic thoughts” and underlying core beliefs and assumptions. Similarly, CIP posits that dysfunctional thinking in career choice can lead to negative self-talk that impacts the processing of information in all information processing domains and phases of the CASVE cycle (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b).

Career thoughts are defined as outcomes of one’s thinking about assumptions, attitudes, behaviors, beliefs, feelings, plans, and/or strategies (Sampson et al., 2004). When career thoughts are of a negative nature that can impede the processing of information needed to engage in the career choice process serving as a barrier to accurate interpretation of self-assessment results, occupational and employment information and lead to lack of confidence in career decision-making skills. Assisting clients in developing an awareness of negative career thoughts may serve to
alleviate disabling affect and self-doubt that can interfere in this process. Exploration of the impact of negative career thoughts on clients’ ability to make good, informed career choices has long been an area of research and study (Corbishley & Yost, 1989). Several recent contributions have offered insights for counselors working with clients who present with negative, self-critical career thoughts. Using Super’s developmental model, negative career thinking was found to be highest in individuals in the exploratory stage and decreased through establishment and maintenance stages (Dahl, Austin, & Wagner, 2010). Findings investigating negative career thinking showed similarities between negative career thoughts of unemployed adults and undergraduate students (Bullock-Yowell, Andrews, McConnell, & Campbell, 2012). Additional studies involving negative career thinking have found relationships between instability of goals and the presence of negative career thoughts (Bertoch, Lenz, Reardon, & Peterson, 2014); negative career thinking as a component of career problem solving self-efficacy and engagement in exploratory behavior (Bullock-Yowell, Katz, Reardon, & Peterson, 2012); and an inverse relationship between negative career thoughts and the presence of a calling (Galles & Lenz, 2012).

These findings suggest that when working with clients, particularly adult clients with greater life complexity, it may be necessary to address negative career thoughts at the start of the career counseling process to enhance confidence and comfort establishing goals, engaging in exploration, and developing clarity in career choice. Counselors can assist clients in identifying faulty, inaccurate career thoughts and encourage the use of cognitive reframing exercises to help clients move toward readiness for full engagement in the career decision-making process.

**Career Thoughts Inventory**

**Description**

The Career Thoughts Inventory (CTI) is a CIP theory based assessment and intervention resource intended to improve career problem solving and decision making (Sampson, Peterson, Lenz, Reardon, & Saunders 1996a). The CTI is a 48-item inventory that can be easily administered and scored. Clients respond to items written as negative statements that are endorsed on a 4-point Likert type scale from Strongly Disagree to Strongly Agree. The items reflect thinking in all areas of the pyramid of information processing and phases of the CASVE cycle. The inventory measures the extent to which thinking in career choice impedes effective processing of information, problem solving and decision making in career choice (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b). The psychometric properties of the inventory support its adequacy for use and appropriateness in counseling. Reliability coefficients of the total score and construct scales are all within acceptable ranges (α =
.74 -.97) supporting the internal consistency of the CTI and its scales. Convergent validity data for the CTI consistently shows significant correlations with similar measures such as the My Vocational Situation, Career Decision Scale, Career Decision Profile, and the NEO Personality Inventory (Feller & Daly, 2009). The inventory’s use and relevance in practice have undergone further research and study. For a complete listing of research related to the CTI refer to the Center for the Study of Technology in Counseling and Career Development (www.career.fsu.edu/techcenter).

The CTI can be used for screening, as a needs assessment or as a learning resource when providing career counseling services. Scores and interpretation of client profiles help to determine client readiness for the career choice process and the appropriate level of career counseling intervention. The CTI is appropriate for use with adult, college student and high school student populations. Scores on the CTI reflect overall negative career thinking (CTI total score), as well as negative thinking in three content areas – decision-making confusion (DMC), commitment anxiety (CA), and external conflict (EC) (Sampson et al., 1996b). A profile page to plot the scores is provided on the back page of the inventory based on the normative group. Raw scores can be interpreted as T scores. T scores above the mid-range (T = 50) reflect the presence of negative career thinking. Clients whose scores fall below the mid-range are likely to be able to begin engaging in self-assessment or exploration of options while those with higher T scores will benefit from interventions that help to reduce negative career thinking before moving to other areas of exploration.

**CTI Construct Scales**

Examination of construct scales on the CTI provides further understanding into areas of negative career thinking. Decision-making confusion refers to the inability to initiate or sustain the decision-making process due to disabling emotions and/or a lack of understanding about the process. High scores on the DMC scale suggest the need for assistance in understanding how to go about making career decisions and may involve additional assessment to clarify the intensity of emotion that may accompany engagement in the process.

The commitment anxiety construct scale reflects an inability to make a commitment to a career choice and is often accompanied by worry or anxiety about the outcome of the choice. Clients with higher scores on the CA scale may benefit from further assessment to determine the contribution of anxiety to their career indecision. Interventions that help the client identify specific worries or fears about the process and commitment to a choice will also be helpful.
External conflict assesses the extent to which clients can effectively balance the views and opinions of others with their own values and beliefs in the career decision-making process. High EC scores indicate locus of control issues that keep the client from independently making choices and taking action (Lenz, Peterson, Reardon, & Saunders, 2010; Sampson et al., 1996b).

The CTI in Practice
In addition to its use as a readiness assessment tool, interpretation of the CTI can enhance client self-awareness and assist in identifying areas of focus in the career counseling process. Exploring with the client the total score and construct scores (DMC, CA, and EC) may help to increase client understanding of areas that keep them feeling stuck in the career choice process. Review and discussion of individual items can allow for client insights necessary to move beyond disabling thoughts and emotions that may exist. Doing so can provide understanding that will allow for further engagement in self exploration and options under consideration, thereby enhancing readiness for career exploration and decision making.

A workbook to accompany the use of the CTI was designed as an intervention tool to help clients identify, challenge and reframe negative thoughts that may serve to inhibit engagement in the career problem-solving and decision-making process (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996c). Content and exercises in the workbook can be assigned as homework for clients between sessions with a career counselor. This allows for integration of CTI interpretive material with active learning about thinking in career choice.

The Case of Skyler: A Closer Look at Self-Doubt and Uncertainty

Background and History
Skyler is a 48-year-old Filipino American female. She and her husband have been separated for six months and share custody of their two children, a son age 12 and daughter age 15. She has been self-employed for the past decade in the real estate industry, starting out as a real estate agent in a large agency, then growing and managing her own business with several additional agents. She stated that her company had been very successful although a recent downturn in the housing market had impacted her overall income. The instability of income, in addition to other factors, was influencing her decision to explore alternative options. She expressed dissatisfaction with the demanding work hours, commission based income, lack of benefits (primarily health benefits), limited time with her children when they were with her, and growing frustrations with her clients due to their demands on her time both nights and weekends. Although she had several ideas about possible occupations to ex-
plore she was unable to take action leaving her frustrated and upset with her current employment and its impact on her family (Communication). She decided that it would be helpful to meet with a career counselor for assistance finding direction and focus to pursue the career change she desired.

During the initial consultation Skyler shared with the counselor that she felt guilty for not being available to her children during their visits with her. The guilt she described had been building since separating from her spouse and left her feeling sad, lonely, and hopeless about finding alternative employment. Throughout the session she referred to her work, her parenting and her ability to manage successfully in an alternative employment situation using self-critical, negative statements (e.g., “I can’t handle dealing with my clients anymore”, “I’m not sure I know how to make a change”, “I know I have skills but I don’t know where to use them”) suggesting significant self-doubt. Both the Pyramid of Information Processing and the CASVE cycle were shared with her to provide a framework for the career decision-making process.

The CTI and Case Interpretation

Given the presence of negative career thinking and self-doubt in her abilities to engage in occupational exploration and manage a job transition Skyler and the career counselor agreed it would be helpful to complete the Career Thoughts Inventory (CTI). The CTI was used to assess career choice readiness and negative career thinking. Her CTI scores reflected a CTI total score -T score of 48 – that would suggest mild negative career thinking that could be impacting her ability to engage in the career decision-making process. Looking further at her score report, scores on the DMC scale – T score of 47, and EC – T score of 46, suggested career thinking that was not significantly interfering in the career choice process, yet could still be having some impact and would be important to explore.

Items endorsed on the CA scale – T score of 60, however, revealed elevations in negative thoughts focusing on worry and anxiety surrounding commitment to a choice. She endorsed items such as “I’m afraid I’m overlooking a choice” and “I worry a great deal about choosing the right field of study or occupation” (Sampson et al., 1996a). Using a talk aloud protocol, the career counselor encouraged Skyler to share about each item and her choice of endorsement to help uncover potential barriers and concerns that she was experiencing in the process. She was surprised to realize how fearful she was of making a poor choice that could alter her income stability and subsequent ability to provide for her family.
Career Counseling Process - The CASVE Cycle

Following the initial session, Skyler was given the CTI workbook and encouraged to work through this on her own to aid in reframing negative career thoughts that were impeding her ability to begin to take action in her job search. To help reduce worry associated with the time involved in the process of making a choice, Skyler and the career counselor discussed the importance of viewing the experience as a process and allowing her the time needed to fully explore before committing to a choice. She completed parts of the workbook related to items that were most significant for her and engaged in self-reflection about her emotional state. She became more aware of prior losses that were impacting her overall mood leaving her feeling sad, tearful, and lacking energy and motivation for career decision tasks (Communication, Analysis – Self-Knowledge). This awareness led Skyler to return to her former counselor for a few visits while also working with the career counselor.

Having identified and reframed several negative career thoughts, Skyler was now able to express clarity about her skills, values and interests (Analysis – Self-Knowledge). She established a plan to communicate with several key network contacts and expressed interest in three career fields: (a) sales in a local market involving minimal travel, (b) marketing, and (c) economic development (Analysis - Occupational Knowledge). These options were consistent with her interests, skills and values of security, balance, and personal growth and development. Her knowledge about herself and potential occupations to explore confirmed the CTI results and the general absence of negative career thoughts that were serving as a barrier to exploration. Engaging in networking and information interviewing she quickly identified several options to pursue that allowed for work related values she was seeking and solidified her interests (Synthesis).

She was excited and enthusiastic when a colleague encouraged her to consider a full-time position in real estate development. The position allowed for set hours M-F and did not require her to be work nights and weekends. Additionally, she negotiated with the employer to take on responsibilities similar to her managerial and leadership roles in her own business while also having opportunity to engage in new learning and skill development (Valuing). After considering the offer and negotiating employment terms that she was comfortable with, she felt ready to accept the offer (Execution).

Skyler left career counseling having accepted an alternative position with confidence, certainty, excitement, and enthusiasm about her future. She had successfully identified knowledge gaps that helped her to focus her time and effort in the career counseling process arriving at a good, in-
formed career choice. Exploration of Skyler’s career thoughts provided her with insights necessary to address her worries and fears. As a result, she was able to find a path to a new position and develop increased confidence in her ability to take care of her family. In the past, she had been reluctant to take any action on the state of the relationship with her husband. As her confidence grew in her abilities and decision-making skills she felt ready to move forward and took steps to initiate reconciliation with her spouse.

**Benefits and Limitations Using the CTI**

Using the CTI in the career counseling process can enhance client self-awareness allowing individuals to more fully engage in the process. In the case example presented, Skyler found value in understanding her career thoughts and the impact of negative thinking on her comfort to make a choice. With the help of the CTI workbook and the career counselor she was able to reframe and alter negative career thoughts so that she no longer doubted whether she could make a good choice and was more comfortable with some level of risk in committing to an alternative employment option.

The use of the CTI with clients could bring to light a more global negative thinking process or core beliefs that would require intervention beyond a few career counseling sessions. This may be particularly salient when reviewing individual items with the client, as they are likely to share more meaningful content about themselves and their lives using a talk aloud protocol. If underlying mental health issues become apparent it would be important to address these issues either in the career counseling sessions or through a referral (Lenz et al., 2010). Career counselors who have training and are comfortable taking on such concerns could do so in conjunction with the career counseling work. If not, referrals to other providers for assistance prior to beginning the career counseling work would be appropriate.

**Conclusion**

Client’s career and employment uncertainties can lead to negative career thinking reflecting self-doubt. In the face of the unknown, clients often choose the path of familiarity even though it may no longer be a good fit. Sticking with what is known can feel easier and less challenging even in the midst of emotion that clearly reflects a need for change. As career counselors we can help our clients move toward acceptance of uncertainty, especially in times of increased stress. Counselors are encouraged to consider using the CTI and CTI workbook material to help alleviate worry and uncertainty in clients engaging in negative career thinking. The CTI serves as a practical and valuable tool to aid career counselors in assessing clients’ career choice readiness, determining appropriate-
ness of career interventions, and helping clients develop increased self-awareness of negative career thoughts that may be getting in the way of effective career decision making.

References


Figure 1. What’s involved in career choice.

Figure 2. A guide to good decision making.

About the Author

Denise E. Saunders, PhD, is a Licensed Psychologist and National Certified Counselor in independent practice in Chapel Hill, North Carolina. She currently serves as Career Counselor and Consultant to the National Institutes of Health, providing career and professional development services to scientists in training. She earned the PhD in the combined program in Counseling Psychology and School Psychology at Florida State University in 1997. She earned the MS and EdS degrees in Counseling and Human Systems at Florida State University in 1992 and the BS in Psychology at Bridgewater College in 1984. Prior to her work in private practice, she served as a Staff Psychologist for counseling and psychological services at the University of North Carolina at Chapel Hill and Assistant Director of the Career Center at Florida State University. She has served on professional association committees for continuing education, professional standards and publications development. She served as the Program Chair of the National Career Development Association Global Conference in 2012. She has presented on numerous career and professional development topics nationally and has written and co-authored articles and book chapters on the Career Thoughts Inventory and applications of Cognitive Information Processing theory in practice. She is a co-author of the Career Thoughts Inventory.

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USING the SELF-DIRECTED SEARCH in PRACTICE
by Emily Bullock-Yowell and Erica Mathis

Abstract
The Self-Directed Search (SDS) has proven to be an invaluable tool in career counseling and is currently in its 5th edition. Easily scored and interpreted, the SDS is a measure developed from John L. Holland’s RIASEC theory of work personalities and environments. The unique measure addresses both client’s interest and skills. High reliability and validity as well as availability to various languages and reading levels make the SDS accessible to a wide range of clients. Complementary resources also help clients throughout career counseling, especially in the search for a job that matches their personality. This article details one case in which the use of the SDS was able to help a client in need of career assistance.

The Self-Directed Search (SDS) was initially developed by John Holland around 1970 (Reardon & Lenz, 1998) in an effort to create a more accessible and self-scorable interest inventory. The SDS is grounded in Holland’s (1997) RIASEC theory. RIASEC theory holds four main assumptions. These assumptions include the idea that most people can be categorized as one of six personality or interest types and most work environments can also be categorized by these six types. Individuals develop into these personality types through the influence of various factors, such as heredity and parental influence (Holland, 1997; Miller, Wells, Springer, & Cowger, 2003). Additionally, reinforcement of activities leads to the honing of skills and competencies that increase interests and development of personality types (Holland, 1997). The assumptions also hold that people look for environments that allow them to exercise their preferences and skills. Reinforcement through activities leads to the development of self-concept and personality, which can help individuals understand environments that best match their personalities. Additionally, behavior may be affected by the person and environment interaction.

The SDS aids clients in determining which of the RIASEC types they most resemble and provides resources by which they can search for an occupation with a similar RIASEC make-up. RIASEC is an acronym for Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Holland placed the RIASEC types around a hexagon to represent the
relationship among the types. This hexagon, including a short description of each type can be found in Figure 1 [see Appendix]. We assumed most readers are familiar with the RIASEC types but a more detailed discussion of these types can be found in a variety of sources (e.g., Holland, 1997; Reardon & Lenz, 1998) for those looking to learn more.

The SDS was recently updated and is now in its 5th edition (Holland & Messer, 2013). The 5th edition is based on a new norm group, appropriate for clients ages 11 to 70, and linked to updated occupational information including the O*NET online database (http://www.onetonline.org/) (www.parinc.com). The inventory begins with the Occupational Daydreams section which requests test takers to list the occupations they have thought or dreamed about. The SDS includes 264 items that appear across four subscales. A unique aspect of the SDS is it measurement of self-assessed interest and skill. The activities and occupations subscales assess a client’s interest in pursuits related to all RIASEC areas. The competencies and self-estimates subscales ask clients to consider their skills as compared to their peers across all RIASEC areas. The paper-and-pencil test version is in booklet style and allows space for the client to complete their own scoring, which allows for transparency of results. Separate booklets that present the Holland codes for occupations and educational options are also available. The SDS can also be taken and scored online, which allows for access to a lengthy interpretive report. The SDS results most simply yield a three-letter Holland code (e.g., RIA) that represents the Holland types the client most closely resembles. This Holland code or Summary Score is based on the results from the four subscales. A variety of Diagnostic Signs or Secondary Constructs can also be counselor or computer calculated to provide some nuance to the results. A variety of these Secondary Constructs will be presented in the case study below.

The SDS is associated with well-regarded psychometric qualities. Internal consistency reliability is above .70 across all subscales with some lower exceptions for the self estimates subscales. Additionally, test-retest reliability was assessed using a sample of 49 individuals between 12 and 69 years of age, resulting in correlations ranging from .87 to .96 after a 2-4 month delay (Holland & Messer, 2013). Convergent validity results are available across a variety of measures. The SDS was compared to the Strong Interest Inventory and the O*NET Interest Profiler, with RIASEC correlations ranging from .24 to .71 and .31 to .80, respectively (Holland & Messer, 2013). To assess predictive validity, the standardization sample was asked to identify themselves as either satisfied or dissatisfied with their careers. Forty-one percent of those who identified as satisfied had an occupation with the same high point code as they had received on
the SDS. In contrast, only 21 per cent of those who identified as unsatisfied were found to have matching codes. Correlations between the computer-based and an internet version ranged from .85 to .98, suggesting that there is little difference between the versions (Holland & Messer, 2013). Additionally, over 30 language and cultural translations of the SDS have been identified (Bullock, Andrews, Braud, & Reardon, 2010), rendering the SDS useful with a wide variety of clients.

The Case of Anthony

A case study of Anthony will be presented to further explain the SDS as well as model its use in career counseling. Anthony sought assistance from a local career counselor, Marissa. Marissa is a licensed professional counselor that has maintained a private practice focusing on career counseling for the last 11 years. In Marissa’s initial meeting with Anthony she learned he is a 28-year-old, African American man seeking career counseling to help find a career path that matches his interests and skills. Anthony has never been married and has no children. He lives with his girlfriend of two years, Cynthia. When asked what he does in his free time, Anthony noted that he enjoys cardio exercise and strength training.

Immediately after graduating high school, Anthony joined the Army and completed two tours in Afghanistan. Following an honorable discharge he attended a local community college. There he obtained an associate’s degree in business. Anthony said he enjoyed his classes, but he feels that the employment his degree affords is not interesting or fulfilling. His first job after obtaining his degree was as a salesperson at a large paper company. He described his job as boring desk work but he remained with the company for three years because he enjoyed helping his customers. However, the tediousness of the job became too much and Anthony terminated his employment to explore other jobs.

Since his time at the paper company, Anthony has held jobs in retail and restaurant settings. His longest employment during this period of time was as a server at a casual waterfront dining restaurant. Anthony noted that he enjoyed his customers and coworkers and being on his feet. However, he felt that the management was not ideal and that the varying work hours were taking a toll on his relationship with Cynthia. Additionally, Anthony expressed his interest in building a career and that he saw his employment as a server as just another job.

Anthony denied receiving any previous mental health counseling. He noted that his only experience with career counseling had been a brief talk with a career counselor at a booth during a job fair when he was attending community college. Anthony is seeking career counseling at this point in his life to gain direction toward a career. However, he stated that
even after serving in the military, obtaining a business degree, and gaining years of work experience that he does not feel sure of his skills and interests. Anthony expressed worry he has waited too long to start his career and that any skills or interests he discovers will not lead to jobs/careers he can obtain based on his education.

Exploring the SDS with Anthony

Because Anthony presented with a lack of self-knowledge regarding skill and interest, Marissa decided to administer the SDS. The SDS would allow Anthony to self-assess his interest and skill, link his interests to updated occupational information through the SDS Occupations Finder and online using O*NET. The SDS can provide a platform for Marissa and Anthony to discuss his skills and interests and form a plan for next steps. During their first session, Marissa asked Anthony if he would mind taking about 20 minutes to complete the SDS. She told Anthony that the SDS would help to organize his skills and interests into some main areas to consider. In other words, the SDS would help them know which piece of the pie to focus on when determining a career plan for him. Marissa showed Anthony the test booklet and explained each section starting with the occupational daydreams and moving through each subsection until they reached the scoring chart. She encouraged Anthony to score his SDS in an effort to understand from where his results are derived. Anthony completed the SDS in Marissa’s office as she answered emails. This allowed Marissa to be readily available should Anthony have questions as he moved through the booklet.

When Anthony had completed the SDS, Marissa encouraged him to take a break while she scanned the booklet for scoring accuracy and calculated the secondary construct scores. Anthony’s scores on the SDS are represented in Figure 2 [see Appendix]. When Anthony returned to Marissa’s office she took some time to explain the results. Marissa started by explaining Holland’s theory and the RIASEC model. She explained that his answers on the SDS resulted in a Holland or Summary code of ESR. She asked if Anthony related to the interests and skills involved with the Enterprising, Social, and Realistic areas. Anthony noted that he did want his career to always involve working with people and that he did enjoy hands-on activities like when he was at the gym. Anthony talked about how he did not miss his Army position repairing vehicles but did miss how active and hands on he was able to be during the work day. Marissa inquired as to whether Anthony had experience or interest in being in charge of or directing others as indicated by his highest Holland code, Enterprising. Anthony clarified that he tended to find himself in the role of leader or trainer in most places he worked, even if it had not originally been a part of his job description. He described his experience at the
paper company where he tended to mentor the new employees and his role in training wait staff as a restaurant server. Anthony spoke of how he took new recruits *under his wing* during his second tour in Afghanistan. Anthony said he had never really thought of his tendencies toward leadership before but he did enjoy that role in his job as he felt like he was helping his co-workers achieve their goals by sharing his expertise.

Marissa also took some time to talk to Anthony about the Secondary Construct or Diagnostic Sign scores she had calculated. These scores would help to further specify the unique nature of Anthony’s Holland Code. Marissa described Anthony’s Profile Elevation score which is determined by adding all the total scores from each RIASEC area. Profile Elevation indicates how much interest and skill was expressed over all when taking the SDS. Individuals with high Profile Elevation may be overwhelmed by all the options they indicated they like. Those with particularly low Profile Elevation tend to fall in one of two categories. Some are very decided and indicated few interests on the SDS as they feel they know what they want to do. Others are often distracted by other concerns in their life and feel negative in general, leading them to indicate that they like and are skilled at very few options presented on the SDS (Bullock & Reardon, 2005, 2008). Marissa let Anthony know his Profile Elevation was in the average range, indicating a typical level of item endorsement leading to no particular concerns.

Marissa then discussed Consistency with Anthony. She explained that Consistency is based on how close the letters that comprise your Holland Code/Summary Code are on the RIASEC hexagon. Your consistency can be high, average, or low. High or low score do not translate to good or bad, but those with low consistency might have a hard time finding an occupation that fully encompasses their skills and interests (Reardon & Lenz, 1998). Using a figure of Holland’s RIASEC hexagon (See Figure 1), Marissa showed Anthony that his Holland or Summary Code’s first two letters of E and S were next to one another on the hexagon, indicating high consistency. Because more occupations tend to also represent these areas, it may be easier to find a satisfying occupation. The more challenging task may be incorporating Realistic interests and skills into a Social or Enterprising job. She pointed to how R was further from S and E on the Hexagon. Marissa also noted that some people satisfy some aspects of their interests and skills in paid work and other interests through hobbies, such as how working out may satisfy Anthony’s Realistic interests.

Marissa also took some time to discuss Anthony’s Differentiation Score. She explained that Differentiation refers the distinctness of a profile, or how the range of scores varies across the RIASEC areas. Differentiation
is determined by subtracting the lowest RIASEC score from the highest RIASEC score. The level of score (i.e., high, average, low) is determined by the distance of the score from the mean. A score falling more than one standard deviation below the mean is considered low, while a score falling more than one standard deviation above the mean is considered high (Holland & Messer, 2013). Marissa noted that Anthony’s differentiation score fell at the 87th percentile, which is considered high. She explained that a high differentiation score indicates a varied distribution of scores and an ability to identify distinct interests and non-interests. Marissa explained that a highly differentiated SDS profile is a good sign that indicates Anthony may be better able to self-identify his interests and skills than he may believe. A highly differentiated profile also gives confidence in moving forward that Anthony and Marissa can focus on the interests and skills associated with Anthony’s Holland Code. A less differentiated code may necessitate incorporating the consideration of interest and skills across more than just three RIASEC areas.

The SDS Rule of 8 (Holland & Messer, 2013) states that those letters more than 8 points from one another in the code are considered to reflect significantly different interest levels. Anthony’s top three areas of interest and skill, ESR, are significantly different from the other areas, IAC. When reviewing Figure 2, we can see that Anthony’s R score (3rd letter) of 34 is 11 points from his C (4th letter) score of 23, indicating that the interest reflected in his Holland Code are significantly more salient than those interests not reflected in his code.

Marissa and Anthony also took some time to review the Occupational Daydreams he listed. Marissa explained the connection between Anthony’s Summary Code and the code derived from his listed Occupational Daydreams, referred to as the Aspiration Summary Code (SEC) in Figure 2. The relationship between these codes (ESR and ESC) is reflected in Anthony’s congruence score, which is at the 97th percentile. This indicates that Anthony’s interests and skills assessed by the SDS are very similar to the interests Anthony expressed in the Occupational Daydreams section. In spite of his high level of congruence, Marissa noted that Anthony might want to consider how his Holland code and Aspiration Summary Code differ, and which areas might be more easily incorporated into hobbies or other activities if not satisfied in the work setting. Marissa also pointed out Anthony’s Coherence of Aspirations score, which she explained indicates the degree to which the occupations listed in the daydreams section are similar. Marissa again explained that having a low coherence would not mean you scored poorly, it simply means that you might want to further investigate your interests to understand why they might be varied and if that is affecting your satisfaction. Anthony’s Coherence of Aspirations score of average indicated that his
aspirations are related based on the RIASEC areas, but do show some variability in the types of interest areas emphasized in each job.

Marissa asked Anthony what led him to list his occupational daydreams as they discussed each thoroughly. When discussing retail manager, Anthony said he had indicated this due to his experience in the business environment and his coursework during his community college experience. He had considered working in a small retail store, perhaps selling athletic wear or something he found more personally interesting than paper. He said he wrote retail manager rather than salesperson because he thought manager may be more of a career path within the retail industry. Marissa shared her thoughts on how a management position also related to his interest in training others. Anthony agreed that he would like to further consider how he may integrate leadership or training others into his career plans. Marissa asked how this may be related to his second aspiration listed, fitness trainer. Anthony explained that he had used a trainer at his gym before and often found himself relating some of what he learned to his fellow gym members. He said that the gym was where he had the most fun during his week and would enjoy working in that environment. Marissa and Anthony discussed how this aspiration related to several of his interests and skills such as working with others from a helping and training perspective while also working with his hands. She asked Anthony if he would be willing and able to pursue the additional training necessary to apply for such positions. Anthony said that would definitely be something for him to consider. This process continued as they discussed each occupational aspiration Anthony listed. Following the discussion of aspirations, Marissa took some time to listen to Anthony’s questions and clarified aspects of his results. Anthony said the process helped him to realize that he did have some viable options in mind that were more long-term career focused. He really appreciated how the SDS highlighted to him how he enjoyed and had often been praised for his leadership and training ability. Anthony was excited about further considering how to incorporate his need to be more physically active at work, with his interest in training and helping others. He also wanted to be sure to consider how his choices affected his girlfriend and his ability to establish a long-term career path.

Taking Action
After clarifying and summarizing the SDS results and associated discussion, Marissa asked if they could transition a bit into discussing what Anthony could do with his results. He seemed enthusiastic about beginning this portion of the session, and Marissa noted that she was as well since the interpretation of the SDS results usually makes more sense when clients begin to research options on their own. Marissa introduced
Anthony to the use of an Individual Learning Plan (ILP). She explained that the ILP is a worksheet used to note goals and specific activities related to those goals that clients may complete as homework between sessions. Marissa explained that they would collaborate in order to come up with a goal and activities to be completed before the next session, as well as list the purpose, time commitment, and priority of the activities in order to organize the execution of the activities and make the goal more reasonable. Marissa and Anthony decided it would be most beneficial to focus on gathering information about his top two aspirations that he listed in the Daydreams section of the SDS and Real Estate Agent, which he found as an ESR occupation in the SDS Occupations Finder. Marissa mentioned O*NET, a website sponsored by the U.S. Department of Labor, hosts a wealth of information on a wide variety of occupations, including education and skill requirements, salary averages, and insight relating to the daily activities in each job. She encouraged Anthony to use this as a resource, and accessed the website to show him how to access some of the features. Marissa shared that her clients most often benefit from having their SDS results on hand when researching occupations so they might reflect on their code and secondary construct results. She also asked that Anthony take notes relating to each occupation so that they could discuss them in detail at the next meeting. To supplement the O*NET website, Marissa provided Anthony with the Occupations Finder. It includes O*NET codes for quick access to O*NET entries related to occupations. Marissa also presented Anthony with the Veterans and Military Occupations finder, which connects military occupations with their civilian counterparts. Marissa left time for any remaining questions Anthony had, and then worked with him to fill out his ILP which can be found in Figure 3.

Anthony and Marissa met two more times to touch base about the progress of his career decision making. They used their time to help him prioritize which options best fit his interests, skills, values, and general lifestyle. Anthony left their last session with a plan to pursue training as a Fitness Trainer. Anthony commented that the SDS and his sessions with Marissa helped him to clarify his interests and skills to form a clear plan for his future.

Summary
Using the Self-Directed Search, can be an essential aspect of helping a client to move forward in his or her career development. The SDS is a structured tool to aid in the expansion of self-knowledge and can guide a fruitful discussion between the counselor and client. Newly updated, with sound psychometric properties, and based in the well-regarded, Holland RIASEC theory (Holland, 1997), the SDS is linked to a variety
of resources that can be accessed throughout the world for people from many cultures and walks of life.

References


Figure 1: Holland RIASEC Hexagon and Type Descriptions

Figure 2: Anthony’s Self-Directed Search 5th Edition

Results Summary

Age: 28
Sex: Male
Years of Education Completed: 14 (Community College)

Occupational Daydreams:

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<tr>
<td>Fitness Trainer</td>
<td>EIS</td>
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<td>Business Owner</td>
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Scores:

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Summary Code: ESR
Aspiration Summary Code: ESC

Diagnostic Signs/Secondary Constructs:

Profile Elevation: (154) Average
Consistency: 3 (high)
Differentiation: (36) 87th percentile
Congruence: (27) 97th percentile
Coherence of Aspirations: Average
Figure 3: Anthony’s Individual Learning Plan

Goal(s):#1: Explore occupational options to narrow down to top option to pursue__________
Activity: Research and take notes on Retail Manager on O*NET, noting salary, required skills, required education, job outlook, and typical workplace characteristics, as well as any other interesting aspects of the job.
Purpose/Outcome: To understand more about what is required for the job of Retail Manager, as well as what it would be like to hold the position.
Estimated Time Commitment: 1 hour. Goal #: 1. Priority: 2

Activity: Research and take notes on Fitness Trainer on O*NET, noting salary, required skills, required education, job outlook, and typical workplace characteristics, as well as any other interesting aspects of the job. Give particular attention to training needed.
Purpose/Outcome: To understand more about what is required for the job of Fitness Trainer, as well as what it would be like to hold the position. Determine if necessary training would be a viable option at this time.
Estimated Time Commitment: 1 hour. Goal #: 1. Priority: 3

Activity: Research and take notes on Real Estate Agent on O*NET, noting salary, required skills, required education, job outlook, and typical workplace characteristics, as well as any other interesting aspects of the job.
Purpose/Outcome: To understand more about what is required for the job of Real Estate Agent, as well as what it would be like to hold the position.
Estimated Time Commitment: 1 hour. Goal #: 1. Priority: 4

Activity: Explore the Occupations Finder and Veterans and Military Occupations Finder. Purpose/Outcome: To identify other occupational options of interest to explore further.
Estimated Time Commitment: 1 hour. Goal #: 1. Priority: 1

This plan can be changed based on what is learned from completing the above activities. The purpose of the plan is to work toward mutually agreed upon problem-solving goals. Activities may be added or subtracted as needed.

Client: Anthony_______  Counselor: Marissa______Date: 6/10/14
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FACILITATING the TRANSITION from SCHOOL to WORK with a CAREER DECISION-MAKING APPROACH: Process-Related Assessments and the PIC Model

by Nimrod Levin and Itamar Gati

Individuals seek career counseling to facilitate their career development and make career decisions during different life transitions. One such transition that requires increasingly more careful planning nowadays is the transition from school to work. To help counselors provide services tailored to the needs of each individual client during this transition, we review two assessments intended to measure characteristics of individuals that involve the process of making a career decision: the Career Decision-Making Profile (CDMP) questionnaire and the Career Decision-Making Difficulties Questionnaire (CDDQ). In contrast to assessments of content (typically measuring abilities or vocational interests and preferences), the CDMP and CDDQ assess the process of making the decision. To demonstrate the use of the CDMP and CDDQ, we present a case study of the transition from school to work. We conceptualize career decision-making during this transition using the Prescreening, In-depth exploration, and Choice (PIC) model. The incremental value of using assessments of the decision-making process and relying on the PIC model for the transition from school to work is discussed.

Instability may have become one of the core features of the 21st century labor market. One manifestation of this increasing instability has been new graduates’ inability to secure jobs in their fields of study, with young adults’ unemployment rates reaching 16% in the USA and up to 56% in some European countries (McKinsey, 2014). To address this challenge, career counselors have proposed new theories and intervention models to help individuals plan their careers (Krieshok, Motl, & Rutt, 2011; Levin & Gati, in press; Pryor & Bright, 2011; Savickas et al., 2009). The common principle underlying many of these new theoretical and practical developments is that of replacing the notion of a single career choice with the idea of ongoing career management. Indeed, in the first half of the 20th century, a single career choice leading to a typical career trajectory
was often enough. This trend changed in the second half of the century, and now, in the 21st century, the focus is more often on helping clients with short-term decisions, acknowledging that it is practically impossible to predict the long-term career outcomes of a single decision (e.g., Krumboltz, 2009; Pryor & Bright, 2011). In addition, if counselors are to deal with the greater variety of short-term career decisions their clients face, they need to be informed about the vocational and employment situations each client faces, while adapting their approach to a variety of cases.

In the present paper, we focus on the complexity involved in counseling for today’s transition from school to work. Relying on the career decision-making perspective and specifically the PIC model (Gati, 2013; Gati & Asher, 2001), and viewing career counseling as aimed at facilitating the client’s career decision-making (Gati & Levin, 2014b), we present and discuss the case of Nora, a college student majoring in political science and economics, who is at the end of her junior year and contemplating what to do after graduation. We begin with the presentation of Nora’s dilemma and the assessment of how she makes career decisions (using the Career Decision-Making Profile Questionnaire [CDMP]; Gati, Landman, Davidovitch, Asulin-Peretz, & Gadassi, 2010; Gati, Gadassi, & Mashiah-Cohen, 2012) and the foci of her career indecision (using the Career Decision-making Difficulties Questionnaire [CDDQ]; Gati, Krausz, & Osipow, 1996). After describing why and how the CDMP and CDDQ can be incorporated into counseling, we review the Prescreening, In-depth exploration, and Choice (PIC) model (Gati & Asher, 2001), and discuss how it may be adapted for today’s decisions that involve the transition from school to work.

Nora’s Challenge: Coping with the School-to-Work Transition

Nora is a student at the end of her junior year at a large state university majoring in political science and economics. She has not yet made up her mind about what she would like to do after graduation. Nora was happy with her choice of college majors: she was receiving a broad education that helped her understand and evaluate the global political and economic changes occurring in the second decade of the 21st century, as well as acquiring skills that she believed employers were seeking in new recruits. Furthermore, she was able to maintain a high grade point average and had an active social life that satisfied her. Like many of her classmates at the end of the junior year, Nora felt that she was approaching a critical point in her career. She was concerned that time was running out and that she needed to formulate a career plan soon.

In the months following spring break, Nora was considering three primary options to pursue upon graduation. One was to look for a job in the financial sector. However, in light of what she heard from her friends and
the headlines on the news, she was unsure whether she would be able to secure a job that would meet her expectations. Another option was to apply for an unpaying internship in one of the major financial firms or non-governmental organizations (NGOs), believing that this would be an essential stepping-stone to realizing her childhood dream of working for the UN. However, Nora would not be able to manage for another year without any income. The third option that Nora was considering was applying for an MBA program. While she was fortunate in having parents who paid for her undergraduate studies, the MBA program, would entail taking on a student loan that might take her years to repay. Furthermore, Nora knew that if she wanted to apply for such a program she would need to spend the summer months studying for the admission tests. None of the three options emerged as clearly better than the others, and Nora was frustrated because she was unable to make up her mind about what to do next.

As the summer vacation was approaching, Nora’s sense of urgency due to her need to make a decision increased, leading to anxiety attacks. Consequently, her parents suggested seeking career advice at her college’s counseling services. Although Nora had initially thought that counseling services only help students with their choice of academic major, the receptionist at the counseling office’s front desk told her that she could also discuss her post-graduation career plans with a counselor. In preparation for the first face-to-face counseling session, the receptionist asked Nora to fill out an online assessment that the center uses for students at her career stage (i.e., approaching the transition from school to work).

The initial assessments. The introduction to the online assessment stated that it is aimed at measuring the unique way in which Nora typically makes career decisions (using the Career Decision-Making Profiles questionnaire, CDMP; Gati et al., 2010; Gati et al., 2012) and locating the specific foci of Nora’s career decision-making difficulties (using the Career Decision-making Difficulties Questionnaire, CDDQ; Gati et al., 1996). When a prominent tendency to indecisiveness is found in the analyses of the client’s responses to the CDDQ, an additional measure is presented for locating the sources of this indecisiveness (the Emotional and Personality-related Career Decision-making Difficulties questionnaire, EPCD; Gati & Levin, 2014a; Saka, Gati, & Kelly, 2008). Nora was informed that after she had completed the online assessment, a copy of the results would be sent to the counselor assigned to deal with her case, and a counseling session would be scheduled.

**Rationale: Assessing how Clients Make Career Decisions**

To help clients deal with the difficulties involved in career choice, both in general and in the transition from school to work in particular, career
counselors could begin by assessing their clients’ characteristics and specific needs (Gati & Levin, 2014a; 2014b). Typically, counselors assess their clients’ characteristics, namely their career-related preferences, interests, values, and abilities (Levin & Gati, in press). The goal of such assessments is to locate career alternatives that are compatible with the client’s characteristics and thus that are more likely to increase the client’s career-related success and satisfaction.

In the transition from school to work, however, most individuals have already taken into account their preferences and abilities in their choice of academic major or occupation. As a result, we (the authors) recommend at this point assessing each client’s current needs to help him or her advance in the career decision-making process. Specifically, assessing the client’s needs in this stage should involve identifying the specific challenges each client is facing or is likely to face. Some clients, for example, seek counseling to find out which occupations are more likely to satisfy them or which academic majors to choose, while others need help clarifying what they are looking for in terms of specific desirable characteristics (e.g., helping people, using verbal ability) or what they want to avoid (i.e., working outdoors, using numerical ability); some may seek guidance on how to increase the chances of actualizing specific career goals that they have already outlined for themselves. Revealing each client’s needs and goals is essential for the success of counseling.

Another way to distinguish between the assessment of clients’ characteristics and their needs is by distinguishing assessments of content from assessments of processes. Assessments of content involve measuring the client’s preferences, abilities, and other characteristics, to provide the base for locating promising career options that can be put on the client’s short list (Gati & Asher, 2001; Levin & Gati, in press). Assessments of processes, in contrast, involve aspects pertaining to the career decision-making process itself, including the foci or sources of clients’ career indecision, stage in the career decision-making process, and career decision-making profiles (Gati & Levin, 2014a). Since Nora sought career counseling after having chosen a career path that seemed to fit her preferences and abilities, but was unsure about how to advance her career plans, assessments of the decision-making process were used in her case.

The Career Decision-Making Profile and Career Decision-Making Adaptability

Individuals make career decisions in different ways (Gati et al., 2010; Harren, 1979). The Career Decision-Making Profile (CDMP) questionnaire was developed to assess the unique way each individual typically makes a career decision. It is based on a multidimensional taxonomy that acknowledges the effect of both personality and situational factors on the
career decision-making process (Gati et al., 2010). In contrast to previous career decision-making typologies, which highlight the individual’s dominant career decision-making style (e.g., rational, intuitive, or dependent; Harren, 1979), the theoretical approach underlying the CDMP proposes that an individual’s career decision-making behavior is multifaceted and should be addressed accordingly. Based on preceding theoretical accounts and subsequent empirical tests (Gati et al., 2010; Gati et al., 2012; Gati & Levin, 2012), the following 12 dimensions were suggested as comprising individuals’ career decision-making profiles: information gathering (minimal vs. comprehensive), information processing (holistic vs. analytic), locus of control (external vs. internal), effort invested in the process (little vs. much), procrastination (high vs. low), speed of making the final decision (slow vs. fast), consulting with others (rare vs. frequent), dependence on others (high vs. low), desire to please others (high vs. low), aspiration for an ideal occupation (low vs. high), willingness to compromise (low vs. high), and using intuition (little vs. much). The individual’s score for each dimension is computed as the mean of the three items comprising each scale.

Although the CDMP dimensions are conceptually independent, previous research has shown that for six of the 12 CDMP dimensions, one pole is more adaptive – in terms of the associations between the CDMP scores, on the one hand, and in terms of personality dimensions regarded as adaptive, more advanced decision status, and fewer emotional and personality-related decision-making difficulties (Gadassi, Gati, & Dayan, 2012; Gadassi, Gati, & Wagman-Rolnick, 2013), on the other. Based on these findings, a global Career Decision-Making Adaptability (CDA) score is computed as the mean score of six of the 12 dimensions (Gati & Levin, 2012): Comprehensive information gathering, an internal locus of control, less procrastination, greater speed of making the final decision, less dependence on others, and less desire to please others were found to be more adaptive using these criteria, and thus a composite of the scores in these six dimensions constitutes the CDA score.

Previous validation studies have supported the psychometric properties of CDMP questionnaire and its derived scores (for a recent review see Gati & Levin, 2014a). In particular, the internal reliability, the two-week test-retest and the one-year temporal stability of the CDMP and its scores were supported (Gati & Levin, 2012). Recent studies have supported the cross-cultural validity of the CDMP in both Eastern and Western cultures (e.g., Gati et al., 2010; Tian et al., 2014). Furthermore, the incremental validity of the CDMP over other decision-making styles typologies was also demonstrated (Gati et al., 2012).
Nora’s CDMP Results. Nora’s responses to the CDMP indicated that she is comprehensive in information gathering (mean score on this scale was 6.0 on the 7-point scale) and analytical in information processing (M = 5.7). Her locus of control is mostly internal (M =5.3), and she invests much effort in the process (M = 6.3). She is low in procrastination (M = 1.7) but slow in speed of making the final decision (M = 2.3). In addition, Nora tends to frequently consult with others (M = 6.3), and while her score in the desire to please others dimension is high (M = 5.0), she is low in her dependence on others (M = 2.0). She has a very high aspiration for an ideal occupation (M =6.3) and a low willingness to compromise (M = 3.0). She had a moderate score in the using intuition dimension (M = 4.7). Finally, her CDA score was moderate (M = 4.9), reflecting that the way she tends to make career decisions can be improved. After reviewing Nora’s results in the CDDQ, we describe how the CDMP assessment was integrated into her counseling sessions.

Career Decision-Making Difficulties
Gati, Krausz, and Osipow (1996) developed the CDDQ to locate the foci of clients’ career decision-making difficulties and assess their severity. In contrast to many previously developed measures of career indecision, which provide only a single overall career indecision score, the CDDQ is based on a multidimensional taxonomy that consists of ten specific difficulty categories that can be combined into three major clusters. The first cluster includes career decision-making difficulties that typically arise prior to engaging in the decision-making process, due to Lack of Readiness: lack of motivation, general indecisiveness, and dysfunctional beliefs. The second and third clusters include difficulty categories that typically arise during the process. The second cluster – Lack of Information – comprises four difficulty categories all involving lack of information about the career decision-making process, the self, occupations and majors, and ways of obtaining additional information and help. The third cluster – Inconsistent Information – comprises difficulties that involve the use of information due to Inconsistent Information: unreliable information, internal conflicts, and external conflicts.

Previous validation studies have supported the psychometric properties of CDDQ and its derived scores (for a recent review see Gati & Levin, 2014a). In particular, the internal reliability of the CDDQ scores were supported in both an Israeli and US samples by Gati and his colleagues (1996). Additional studies have lent support to the psychometric properties as well as the construct, content, and predictive validities in numerous cultural settings (Gati et al. 1996; Gati, Osipow, Krausz & Saka, 2000; Gati & Saka, 2001a, 2001b; Kelly & Lee, 2002; Mau, 2001; Osipow & Gati, 1998).
Nora’s CDDQ Results. Nora’s responses to the CDDQ indicated that overall she has a moderate level of career indecision. Her results in the Lack of Readiness cluster did not indicate that she was experiencing difficulties involving general indecisiveness; however, she did have a high score in the dysfunctional beliefs difficulty category (mean scale score of 6.8 on the 9-point scale). Similarly, her results for Lack of Information suggested difficulties involving lack of knowledge about how to make career decisions (M = 7.3) and a high level of lack of information about occupations (M = 7.0). Finally, her results in the Inconsistent Information cluster revealed a moderate level of difficulties involving internal and external conflicts (M = 5.2, and 5.5, respectively). She did not report experiencing difficulty in the other five categories.

**Incremental Value of the CDMP and CDDQ for Career Counseling**

The integration of the CDMP into career counseling can contribute in at least two ways (Gati & Levin, 2014a; 2014b). First, the CDMP helps career counselors identify their clients’ maladaptive career decision-making strategies (Gadassi et al., 2012; Gadassi et al., 2013; Tian et al., 2014). For example, the CDMP may show that a client is unwilling to make any compromises or consider alternatives that do not perfectly match his or her aspirations. In such a case, the counselor should devote time for explaining why compromises are inevitable, as ideal jobs unfortunately exist only in dreams. Second, career counselors should tailor their counseling approach to each client’s unique career decision-making characteristics, as studies have shown that this leads to better counseling outcomes (Amit & Gati, 2013; Mau, 1995; Tinsley, Tinsley, & Rushing, 2002; Zakay & Tsal, 1993). For example, clients who make decisions more analytically respond better to interventions that break down the process of career choice into smaller steps, as opposed to a more holistic approach. Thus, integrating the information from the CDMP into career counseling is expected to increase its efficiency and effectiveness.

Using the CDDQ, career counselors can obtain a reliable and valid assessment of their clients’ foci of career indecision on three levels: in terms of the ten difficulty categories, the three major difficulty clusters, and a global assessment of the severity of clients’ career indecision. Being multidimensional, the CDDQ enables career counselors to assess the degree to which career indecision is a major issue to be addressed during interventions, and also provides information about the specific factors contributing to this indecision and the relative severity of each factor. Some individuals suffer from chronic indecisiveness, which differs from career indecision that is regarded as a normal phase that most individuals undergo during career development (Brown & Rector, 2008; Gati & Levin, 2014a). While nine of the CDDQ categories assess career indecision, the CDDQ category of general indecisiveness focuses on chronic
indecisiveness. When a client’s score in the CDDQ’s general indecisiveness category is high, we recommend using the Emotional and Personality-related Career Decision making questionnaire (EPCD, Saka et al., 2008) as well. Since this was not an issue in the case of Nora, we will not further review the EPCD and its merits here. Interested readers are encouraged to see a review of the EPCD with a relevant case study (Gati & Levin, 2014a).

Finally, simultaneously integrating both the CDMP and CDDQ into counseling as primary assessments contributes in two principal ways to intervention planning (Gati & Levin, 2014a; 2014b). First, this integration allows the counselor to efficiently assess a variety of factors contributing to career indecision and maladaptive career decision-making behavior, and thus indicating which factors should be dealt with during counseling. Second, counselors can use the scores to rank-order the various issues that should be addressed according to the specific needs of each client. Breaking the general task into smaller components, and assessing the contributions of each factor to clients’ difficulties allows counselors to decide which issue should be dealt with first and how to sequence later issues. In Nora’s case, based on her results, we recommend beginning with the more general issue of dysfunctional beliefs, then discussing the steps involved in making career decisions, followed by explicating and dealing with Nora’s internal and external conflicts.

**Interpreting Nora’s Results: Moderately Adaptive but also Moderately Indecisive**

Nora’s results in the CDMP indicated that she is moderately adaptive in career decision-making. In addition, her CDDQ results highlighted the foci of her career indecision. For seven scales (out of 22 measured in both the CDMP and the CDDQ), she reported having career decision-making related issues that should be discussed in the counseling sessions: her low speed of making the final decision and high desire to please others as indicated by her CDMP scores, as well as the dysfunctional beliefs, lack of knowledge about how to make career decisions, lack of information about occupations, and internal and external conflicts difficulty categories that emerged as salient in her CDDQ assessment. As mentioned, a general picture emerged: Nora is likely to benefit from a career intervention that will (1) allow her to acquire a better ability to cope with the influence of significant others, (2) help her dismantle and reframe her dysfunctional beliefs, and (3) provide her with a better understanding of ways to evaluate and assess the three options she is deliberating about as part of the Choice stage, based on comprehensive information. Nora’s scores in the CDMP’s desire to please others dimension and the CDDQ’s dysfunctional beliefs category suggest that she holds some beliefs about
the role that significant others should play in her career development, impeding her ability to make satisfying decisions. Believing that her choice should satisfy significant others in her life is an example of a dysfunctional belief that could lead Nora to avoid attempting to pursue the option she would otherwise favor. This is, however, an imagined hurdle that is constructed by one’s thoughts (Levin & Gati, in press). It is the counselor’s task to empower clients with ways to make the best decision.

Once the counselor has helped Nora construct a better picture of how careers should be planned and developed, the next issue that should be dealt with is her lack of knowledge about the steps involved in making career decisions. To deal with this difficulty, the counselor should introduce Nora to the three stages of the PIC model described in the next section. Nora’s difficulties involving internal conflicts suggest that she has conflicting preferences: she would like to enter an MBA program, but would also like to get a taste of the real world with an internship in an NGO. Counselors can help their clients deal with such conflicts by systematically comparing the alternatives in terms of their advantages and disadvantages, taking into account the relative importance of the factors involved in the comparison.

Clients should also be encouraged to give more weight to information gathered from reliable sources. Indeed, a crucial role of career counselors is directing clients to relevant sources of information and enhancing their ability to evaluate the quality of these sources. The way to address informational discrepancies and inconsistencies is discussing them with clients and suggesting ways of resolving them on the basis of their underlying causes. By such a discussion Nora would be likely to experience less difficulty involving lack of information about occupations. Finally, her lack of information about occupations is probably also associated with being unsure what her best course of action is. Specifically, Nora is deliberating among trying to find a paying job, seeking an unpaid internship, or applying to graduate school. Each alternative has its own advantages and disadvantages, but the process of finding the best course of action could be made easier if she had more accurate information about the three options. Furthermore, as we discuss in the following section on the PIC model, Nora would benefit from comparing specific career alternatives instead of merely considering general options.

**Summary of Nora’s Case.**

Nora approached career counseling at a point when she was involved in choosing her next professional step, after having chosen her academic majors (political science and economics) and being satisfied with that choice. As a consequence, assessment of her abilities and preferences would be unlikely to add much information to help her planning her next
steps. Asking Nora about her academic experience and accomplishments would be more relevant at this point. Furthermore, while in most cases career counselors help their clients choose a career profession that is likely to satisfy them, in today’s transition from school to work, counselors should also help clients understand the possibilities for their future career development (based on their previous education).

**Decision Theory: Adapting the PIC Model to the Transition from school to work**

In the previous section, we demonstrated why and how the CDMP and CDDQ can be incorporated into career counseling for a client approaching the transition from school to work. We argued that at the time of this transition, assessments of the process may be more relevant to facilitate career development than assessments of content (i.e., clients’ preferences and abilities). The goal of the present section is to show how assessments of the decision-making process facilitate this process in accordance with the PIC model (Gati & Asher, 2001). Following a brief explanation of the career decision-making perspective, we present the PIC model, as a prescriptive career decision-making model (Gati, 2013), and demonstrate how to implement it with clients approaching the transition from school to work, in general, and for Nora in particular.

Career-counseling interventions typically occur toward or during career transitions, when clients are facing a decision about their next step. Choosing among different educational alternatives, professional training programs, or various jobs, to name only a few examples, are the types of decisions many clients face. Clients expect counselors to help them choose the best alternative, often expressing this notion as the desire to discover oneself (Levin & Gati, in press). From such a standpoint, it may be argued that career counseling has two complementary goals: facilitating the process of making the decision and maximizing the desirable outcomes of the choice.

The purpose of career counseling during transition from school to work is specifically helping clients move from the core role of a student to that of a working individual (Savickas et al., 2009; Super, 1980). Such a transition requires adapting to the world of work, which most individuals are still only partially acquainted with at that point. We consider adapting to the world of work, in this respect, as the ability to quickly choose and secure a position in the labor market that will satisfy the client in the present and will contribute to his or her later career development. To do this, clients need to be informed about what their options are, how to gather new relevant information, and how to make a choice that integrates what the client knows about his or her self and the world of work. Conceptualized in this way, the transition from school to work can also
be addressed as a decision-making problem. The career decision-making approach is the general term used to denote a group of theories and practices that have been developed on the basis of general decision theory but adapted to the context of career decisions (Gati, 2013; Gati & Tal, 2008). From a career decision-making perspective, the goal of career counseling is to help clients make a career choice that will be most satisfying. A more modest goal is to help clients make better career decisions (Gati & Levin, 2014b). Since the world of work has a great variety of complex alternatives, career decision-making models are needed to help analyze the relevant data systematically and synthesize it to facilitate locating the best alternative(s). One such model is the PIC model, introduced by Gati and Asher (2001).

The PIC model.

Due to the complexity involved in making career decisions, dividing the process into distinct stages can facilitate its completion. The PIC model breaks down the process into three distinct and sequential stages: prescreening, in-depth exploration, and choice (Gati & Asher, 2001). The PIC model was introduced primarily to facilitate career decisions, namely as a means of organizing information about the large number of occupations and career paths. In this section, we show how the PIC model can also be useful for the transition from school to work in general, and in helping Nora with her decision in particular. The desirable outcome of the prescreening stage is a small number of promising career alternatives. Clients approaching the transition from school to work should be informed about the various types of career alternatives that they might choose to pursue at this point (e.g., graduate school, internships, short-term and long-term jobs). For prescreening, a systematic search that takes into account a wide range of factors and aspects (e.g., one’s sources of financial support, location, prospects for advancement) is suggested. By considering a wider range of career-related factors and aspects, clients are more likely to discover promising career alternatives that will satisfy them. Eventually, up to 5-7 specific career alternatives should be located by the end of this stage. The goal of the in-depth exploration stage is to thoroughly compare the career alternatives that were identified as promising in the previous stage. This involves focusing on each of these alternatives, and checking whether it is compatible with the client’s characteristics and whether the client is compatible with the core characteristics of the considered career (e.g., need to relocate, working only outdoors). This will probably reduce the number of apparently suitable options. In the third and last stage of the PIC model, clients are expected to reach a choice that they are interested in implementing. After the alternatives that emerged as potentially promising in the prescreening stage have been systematically investigated in the in-depth exploration stage,
a final short list of 2-4 alternatives should be systematically compared at the choice stage. The outcome of this stage should be a rank-order of the suitable alternatives based on their relative advantages and disadvantages. Rather than choosing only one of the alternatives, the client should rank-order several suitable alternatives according to their desirability, as this would make it easier to see what the next option should be in case the first one cannot be actualized.

Implementing the PIC model in Nora’s Case.

Nora approached counseling when she was considering three general courses of actions (i.e., a paying job, an internship, or graduate school). These should not, however, be considered only as three alternatives, but rather as three types of career alternatives. If Nora perceives each of these general possibilities as realistic based on her in-depth exploration, she should focus on finding specific career alternatives within each of these general types. Then she should gather information about specific career alternatives (e.g., graduate programs, job openings in particular companies, available internships). Finally, as the core of the choice stage, she should compare the options systematically, considering their relative advantages and disadvantages. This involves taking into account the relative importance of the factors considered in the comparison, and the degree of fit between her desired characteristics (e.g., no need to relocate) and the respective characteristic of each of the alternatives, for each of the relevant factors. A decision-support module (e.g., www.cddq.org/choice, retrieved September 30, 2014), which guides the client through the steps of such a systematic comparison, can facilitate the comparison. Nevertheless, the career counselor can ask Nora to explicate her intuitions about what seems to her the best alternative before she compares them systematically. If the results of the systematic comparison match the alternative Nora selected intuitively as best, Nora’s (as well as her counselor’s) confidence that it is indeed the best option is likely to increase. If there is a discrepancy, however, the counselor can help Nora to explore its potential sources: perhaps some factors taken into account in Nora’s intuitive choice were not taken into account in the systematic comparison, or vice versa.

Summary

In the present paper, we focused on ways for career counselors to help clients with their transition from school to work. Career counseling for such clients may often involve helping them choose among distinct clusters of professional paths, such as finding a paying job, locating an internship to gain more professional experience, or going on to graduate studies to acquire more professional skills. Considering the increased complexity of the decision at this stage, we demonstrate the benefits of a career decision-making approach to career counseling. Given that career
counseling at this stage is intended for clients who have already chosen their college major or type of professional training, and since many of them are probably interested in pursuing a related career, the relevant range of career alternatives excludes certain fields, and so career counseling at this stage should focus on making a career decision grounded in previous ones.

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Chapter 11

INTEGRATING ASSESSMENTS into the CAREER DECISION-MAKING CONVERSATION
by Debra S. Osborn, J. Tyler Finklea, and Jacqueline G. Belle

Introduction
Career assessments play a key role in helping individuals inform their career decisions, whether through clarifying interests, values, and skills, identifying barriers to decision making, or in expanding one’s options. We have found that many career counseling clients, often within minutes of initially engaging with a career practitioner, make a statement to the effect of, “I want to take that test that will tell me what I should be.” In the sections that follow, we present an argument that career assessments should be part of the overall process of career counseling, not a stand-alone activity. We present a model of incorporating career assessments into the overall career counseling process, and demonstrate that model through use of a case study. In addition, we discuss implications for career service practitioners – but first, we will begin with a review of the purpose/utility of career assessments.

Purpose/Utility of Assessments
Career assessments are used for a variety of reasons including to help an individual clarify their self-knowledge and aide in career decision-making. Wood and Hayes (2013) suggested that a common assumption by career practitioners about career assessments is that they “provide information on self-knowledge, career knowledge, and career-planning skills, all of which are necessary for clients to enhance their career development and career success” (p. 5). In their meta-analytic study of career intervention literature, Brown and Ryan Krane (2000) found that on average, individuals who received a career intervention such as a career assessment had better career development outcomes as compared to control subjects who didn’t receive a career intervention. Additionally, written exercises and individualized interpretations of career assessments were among the five factors that contribute to an individual’s ability to make a career choice. Whiston (2002) also reported mean effect sizes ranging from .46 to .66 for assessment interventions in meta-analytic studies, meaning that using interventions resulted in changes that were not only statistically
significant, but practically significant; it made a difference for the clients. Other research studies have shown the value of career assessments. For example, Interest inventories can be used to increase an individual’s understanding of their career decision making (Reardon & Lenz, 1999), and the use of computer-based career assessments have been found to increased career decidedness and career decision making self-efficacy (Betz & Borgen, 2009). Career assessments have also proven useful for a study of secondary students with disabilities (Farley, Johnson, & Parker- son, 1999). These students, with a mean age of 16.6 years, participated in a career assessment and planning intervention program. Those who received the intervention were better able to be decisive about their career paths, have more vocational self-awareness, and make vocational decisions with more confidence. In the population of gifted girls, Kerr (1993) found through a meta-analysis of the literature that “without career assessment and intervention throughout the lifespan, gifted young women are at risk for adjusting their interests, aspirations, and achievements to fit their own perceived limitations,” (p. 264-265). Other studies have linked the use of career assessments to person-environment congruence (Zanskas & Strohmer, 2010), decreased negative career thinking (Osborn, Howard, & Leierer, 2007), and proactive career behaviors (Hirschi, Freund, & Herrmann, 2013), among others. With multiple studies showing the positive impact of career assessments, the next question is how to integrate the use of these tools into the career counseling process.

Assessment as Part of the Overall Career Counseling Process
Career assessment is one component within the career counseling process. One model of incorporating career assessment comes from Cognitive Information Processing (CIP; Sampson, Reardon, Peterson, & Lenz, 2004) theory. These authors (2003) identified a seven step sequence of the CIP approach in service delivery, within which career assessment may play a key role, including:

- CIP Model of Career Service Delivery
- Initial interview
- Preliminary assessment
- Defining the problem and analyzing the causes
- Formulating goals
- Developing an individual learning plan (ILP)
- Executing the ILP
- Summative review and generalization

Next, we will briefly outline what happens at each step in the sequence, and in particular, how career assessments might be utilized.

Step One: Initial Interview
The purpose of the initial interview is for the client and practitioner to
make a collaborative decision about the level of service delivery that will best fit the client’s needs (i.e., self-help, brief staff-assisted services, or individual case-managed services). In addition, the practitioner is listening for potential career assessments that might be appropriate for the client’s needs. The practitioner should use attending skills to pick up on the client’s speech related to emotions and thoughts linked to the career problem. Relationship development is also of key importance during this step. Appropriate use of self-disclosure and immediacy can strengthen the therapeutic alliance and assist the practitioner in identifying problems. During the interview, qualitative information is gathered concerning the nature of the career problem. A brief screening question such as, “What brings you here today?” may be used to help determine the client’s level of readiness and the appropriate level of service delivery. Potential problems that may require further screening include: uncertainty, confusion, or disabling emotions (Sampson, Reardon, Peterson, & Lenz, 2003). As the practitioner listens, potential assessments may come to mind, such as an interest inventory, or an inventory that addresses perceived barriers. If a concrete information request is made and none of these potential problems are discovered, the client may be referred to self-help resources. Tools such as the CIP Pyramid of Information Processing Domains and the CASVE Cycle (http://www.career.fsu.edu/techcenter/practitioner/index.html) can be provided to the client, and discussed to assist the client in clarifying needs and understanding decision-making. Identifying where the client is in the process can help a practitioner determine the type of career assessment that might be useful. For example, if the client is in the Communication stage, non-standardized approaches that examine familial expectations might be useful, whereas if the client is in the Valuing stage, a values clarification exercise or assessment might be more appropriate.

Step Two: Preliminary Assessment

A screening assessment can be used to gather quantitative data related to the client’s career problem, level of readiness, and factors impacting the client’s ability to make a career decision. Comprehensive screening should include test scores and information gained from the initial interview. Client input should be encouraged, as client participation can help to increase self-esteem and trust in the process. Effective comprehensive screening instruments should have the following characteristics: quick administration time, hand or computer scoring capabilities, a manageable number of scales, and be relatively inexpensive to purchase (Sampson et al., 2003). Suggested preliminary assessments include: Career Decision Scale (Osipow, 1987) My Vocational Situation (Holland, Daiger, & Power, 1980), Career Factors Inventory (Chartrand, Robbins & Morrill, 1989), and the Career Thoughts Inventory (CTI; Sampson, Peterson,
Lenz, Reardon, & Saunders). The CTI measures negative, or dysfunctional career thinking, and can be used for the following three purposes: screening, assessment of needs (including nature of career problem), and as a learning tool in combination with the CTI Workbook to assist the client in understanding and resolving negative thoughts that are impairing the client’s ability to effectively make a career decision (Sampson et al., 2003). Preliminary assessment of a client may also include demographic data, background information, and work history, which can provide important contextual information through which to interpret assessment results.

Step Three: Define Problem and Analyze Causes
In this step, the practitioner and the client come to a collaborative understanding of the problem, phrased as a gap between the client’s real state and ideal state (i.e., where the client is currently and where they want to be; Sampson, Reardon, Peterson, & Lenz, 2004). Possible reasons for the gap are discussed and used in the process of goal setting.

Step Four: Formulate Goals
The practitioner and the client work to establish a set of concrete, attainable goals used to narrow the existing gap. These goals are outlined on an Individual Learning Plan (ILP; Sampson, Reardon, Peterson, & Lenz, 2004; available at http://www.career.fsu.edu/techcenter/designing_career_services/basic_concepts/index.html) and described using specific objectives connected with each goal. The collaborative relationship is again emphasized, as the client should receive the message that they are in control of service delivery regarding their career problem, and that their contributions are valued in the counseling process (Sampson et al., 2003).

Step Five: Develop Individual Learning Plan (ILP)
The ILP guides future service delivery and assists the client in being able to identify the resources and activities needed to resolve the career problem, as well as establishing an order and time frame for which to complete the listed objectives. The ILP should be flexible enough to adapt as the client and practitioner delve further into the career problem, and may require adjustment to fit newly discovered needs. Clients who are feeling overwhelmed should begin with a shorter ILP, which can be further developed over time (Sampson et al., 2003). Another benefit of using an ILP is that it establishes clearly-defined, mutually agreed-upon expectations regarding services.

One type of activity that might be included on an ILP is the completion of a career assessment. A benefit of using the ILP with career assessments is that it should clearly link back to one of the client’s goals, such
as “seeing occupations that match my interest” or “learning what I can do with my skills.” This allows the client to see why a particular assessment is being used, and the anticipated outcome for using it. It also places career assessments within the broader context of the process of making a career decision; it is one tool that can help the client move towards making a decision. In addition, indicating the expected length of time that will be required to complete the assessment can help the client identify the best time to take it. Completing an ILP with a practitioner may also help to strengthen the client’s confidence in the practitioner, and alleviate some anxiety by having a plan and knowledge of resources and activities which correspond to the career problem (Sampson et al. 2003). Some items included on the ILP may be assigned as homework if deemed suitable by client and practitioner. For example, a practitioner may have the client complete an assessment between sessions so as to save in-session time for processing the results.

Step Six: Execute Individual Learning Plan
In this step, the client fulfills the obligations of his or her ILP with the support and guidance of the practitioner. The ILP should be routinely reviewed to track the client’s progress as they works towards meeting their goals. Client versions of the CIP Pyramid and CASVE cycle, available at http://www.career.fsu.edu/techcenter/practitioner/index.html, can also be reviewed to teach problem solving skills and monitor decision making progress (Sampson et al., 2003).

Step Seven: Summative Review and Generalization
The final step in this sequence is to discuss the client’s progress regarding accomplishment of the established goals, and the completion of the Individual Learning Plan. A concluding review of the CIP Pyramid of Information Processing Domains and the CASVE cycle is used to discuss how the initial gap was narrowed, assign follow-up activities, and facilitate use of problem-solving and decision-making skills that can be applied to future issues that the client may face (Sampson et al., 2003). Once an assessment has been completed and interpreted, the career practitioner should discuss with the client where s/he is in the decision making process. Did things become clearer, or muddier? Would they like to complete a different assessment, explore career information, talk to someone in a specific occupation, or engage in a different activity? Has the gap closed or widened? What is the next step? Do they need to continue to meet with the career practitioner, or can they manage the next step on their own? These are questions that might be helpful to be explored during this stage.

Zunker Model for Using Career Assessments
A second model for using career assessments was designed by Zunker
and includes four major steps: Analyzing Needs, Establishing the Purpose of Testing, Determining the Instruments, and Utilizing the Results (Osborn & Zunker, 2011). The process is described as a continuous cycle due to the spontaneous manner in which new client needs and assessment needs can arise at any point during counseling sessions. Earlier steps may need to be revisited before a career decision can be made. When deciding on which assessment tool to use and how much support to provide, practitioners should keep in mind the client’s level of readiness for making a career choice and complexity of the individual’s life, as well as the client’s level of career maturity or basic status data (Osborn et al., 2011). Intake data can be collected using a variety of inventories and sources such as interviews, value inventories, biographical data, and life role importance questionnaires. This data can then be used to guide the creation of developmental intervention strategies.

In this section, we presented two separate models for integrating career assessments. In the next section, we turn our attention to applying these models of integrating the use of career assessment to a case study.

Case Study Application
Initial Interview. Kayla walked into a career center where she hoped to find help with her problem: that she had been unhappy in her job as a bank teller for a while, but she wasn’t sure what she wanted to next or even whether she wanted to leave her current job. First, the career practitioner, Harvey, welcomed Kayla to the center and suggested they get to know each other a bit. They exchanged favorite books, vacation spots, and where each of them grew up. As this helped Kayla relax, Harvey then asked her to explain a bit more about what had been occurring in her life that brought her in for career counseling. Harvey worked to establish trust and develop the therapeutic relationships through displaying a genuine interest in getting to know her and in hearing about her career concerns.

Analyzing Needs/Preliminary Assessment/Defining Problem and Analyzing Causes.
Following some talk of her job history and life circumstances, Kayla began to open up, explained that she felt trapped by her current job and didn’t see herself having a fulfilling career within the banking industry. She started the job because her father thought it was a safe career that would offer stability and happiness. Harvey explained that everyone’s career needs were different and the importance of understanding Kayla’s own ideas of what she wants her career to look like. Kayla continually interjected feelings of worthlessness, being unable to decide, and being incredibly anxious about choosing a career for the rest of her life. Kayla even had difficulty saying what she was interested.
Establishing the Purpose of Testing/Formulating Goals.
After analyzing Kayla’s needs, Harvey discussed the possibility of completing a career assessment with her. Harvey collaboratively attempted to establish the purpose of the testing with Kayla. They agreed that she did not know her interests regarding the world of work as she relied on her father’s guidance in making career decisions. They also agreed that Kayla appeared to possess a significant number of dysfunctional career thoughts and that the negative messages she internalized were contributing to her feelings of being stuck.

Determining the Instruments.
Harvey and Kayla were now at the point where they needed to determine which instruments would be of greatest use to Kayla. First, Harvey suggested that they use a measure of negative, or dysfunctional career thoughts to get a better understanding of all the negative statements that might be contributing to her career concerns. They decided that Kayla would take the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a) to assess her negative career thoughts. Harvey explained that in knowing more specifically which thoughts were acting as barriers, they would be able to work on changing them. Also, to address her lack of knowledge about her own interests in the world of work, an interest inventory like the Self-Directed Search (SDS; Holland, 1994) could provide useful information about how Kayla’s interests aligned with the interests of others in particular occupations. Kayla completed the CTI at the end of session, giving the practitioner time to review it prior to the next session. It was also decided that Kayla would complete the SDS before the next time they met and they would go over the results together.

Utilizing the Results.
Harvey and Kayla examined the results of her CTI and found that she had very high levels of external conflict. Kayla agreed that her family had dictated her career path and she was consumed with fear that if she deviated from this path, she would lose their love and support. Harvey expressed compassion for her fears and suggested that an intervention such as the Career Thoughts Inventory Workbook (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b) might be useful in helping Kayla confront those fears and reframe them into more positive thoughts. Kayla hoped that by reframing her thoughts and thinking differently, she could stop letting her parents’ choices for her be a barrier to choosing her own path. Next, Harvey and Kayla used the results of the SDS to examine her interests, which lay predominantly in the social realm. Harvey had Kayla read through the description of the Social type, which includes interests such as helping, teaching and counseling. Kayla strongly agreed with the
descriptions given as being similar to her, and Harvey asked if she had any examples from her life that would fit into this category. Kayla said she wanted to be a nurse when she was a little girl and would pretend to help ill friends. She hadn’t realized how much she still wanted that dream because her parents told her she couldn’t do it.

**Developing and Executing the Individual Learning Plan/Summative Review and Generalization.**

Finally, as their time together was coming to a close, Kayla expressed her fear that she wouldn’t know what to do with this new knowledge. Harvey introduced her to an Individual Learning Plan: a grid in which she could write down specific, concrete steps she needed to take to reach her goal of going to nursing school. Working together, they identified researching nursing pre-requisites and application dates, talk to an admissions practitioner at the nursing school, and used her knowledge of finance to make a financial plan to get her through school. Harvey explained that Kayla could add as many other items to the list as she needed, and they could include steps like, “Talk to mom and dad about changing my career.” Harvey encouraged her to write down a specific date by which each item should be completed. Kayla left hopeful about the future and feeling she may have options available to her as a result of the career assessments and counseling. Harvey encouraged her to return if she had any questions about completing the ILP or additional career concerns.

**Implications for Career Service Practitioners**

Career assessments, whether quantitative or qualitative in nature, continue to play an important role in the career counseling process. We’ve come a long way from the time of test and tell and recognize that the decision to use an assessment should be integrated within the overall career counseling process. Based on the information provided above, several specific implications for career service practitioners can be derived. First, as practitioners, we should have a rationale for if, when, and how a career assessment would be appropriate. Sometimes, clients will approach a career practitioner with a desire to take a test because someone they knew took one or because of their expectations of what happens during a career session. We must also be willing to acknowledge when a career assessment might not be appropriate. For example, if they are in the step of comparing two options, taking an inventory to expand options might slow down the process. If they insist, it could be indicative of some perfectionistic thinking or some fear of committing to an option.

Secondly, career testing should be one intervention within a comprehensive approach to career counseling. The models presented here demonstrate how career assessments are not meant to be a stand-alone activity, but are intended to enhance the discussion through clarifying
self-knowledge, identifying barriers, and expanding options. Thirdly, if an assessment is warranted, the career practitioner should provide an orientation to the assessment, check in during the process (to see if there are questions, concerns or frustrations), and follow up afterwards (with interpretation and determining next steps). Fourthly, during the discussion, the career practitioner must purposely try to maintain balance in the discussion of the results. It’s very easy to slip into “expert mode” as all the scales and subscales are interpreted. We must make sure to watch non-verbal behaviors of our clients, to gauge when we are giving too much information. Asking general processing questions such as “What are your thoughts about your results?” or “What’s your reaction to what I just shared?” can help balance the conversation.

Finally, career practitioners should aim to stay current on the career assessments that exist, as well as ethical guidelines, research and ongoing discussions about career assessments and their integration into career counseling sessions. Professional associations such as the National Career Development Association (ncda.org) and the Association for Assessment and Research in Counseling outline ethical guidelines for the use of career assessments. Professional journals such as the Journal of Career Assessment provide research on the use of various career assessments in career development, while ongoing discussions among professionals can be found in LinkedIn groups, such as the “Career Assessment” closed group.

Summary
Career assessments provide a useful way to understand a client’s interests, values and skills, identify negative career thoughts, and to expand options related to their self-knowledge. Career service practitioners begin the assessment process with the first words in the first session. We are constantly assessing and re-assessing the client’s concern and the context of that concern, including the potential benefits and drawbacks to potential interventions. If we fully consider how a particular assessment relates to the client’s career need, we can have greater confidence in the efficaciousness of that intervention.

References


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INTEGRATION of ASSESSMENTS in COUNSELING: Developing Competence within Clinical Supervision
by Seth Hayden and Julia Kronholz

Abstract
Career practitioners often administer assessments in their work addressing the career development needs of those we serve. Due to the frequent use of assessments and the attention on developing skills in this area within professional standards, it seems important to consider ways in which competence in the administration and interpretation of career assessments is developed. Supervision is an ideal venue in which to develop skills in effective administration of career assessments. Considering effective strategies for providing supervision in developing competence in the administration of career assessments is important in the delivery of quality career services. This article discusses areas of competence in career assessment, levels of various assessments, and specific strategies for developing competence. A case study is provided to illustrate the concepts in this article.

Career practitioners often find themselves utilizing a variety of strategies in which to collect information on the experience of clients to assess clinical needs and associated interventions. Various forms of formal and informal assessments are often employed for the purposes of gathering clinically relevant information. Clinical mental health counselors may utilize assessments such as the Substance Abuse Subtle Screening Inventory (SASSI-3) to determine the potential for substance use disorder, school counselors may be asked to provide a recommendation for interventions related to the results of an assessment indicating attention-deficit disorder, and a career counselor may be utilizing a Self-Directed Search (SDS: Holland & Messer, 2013) to assist someone unsure of their career path. All of these instances involve the use of assessments to inform treatment, which can have significant consequences in relation to the appropriateness of selected interventions. Given the consequences of this process, it bears consideration of the manner in which counselors develop competence in the selection, administration, and interpretation of these instruments.
The professional standards for various helping professions all have language around the ethical use of assessments. The Council for Accreditation of Counseling and Related Educational Programs (CACREP) professional standards (2009) as well as the current drafts of the upcoming revisions contain elements of assessments in the curriculum for accredited programs. The ethical standards of the American Counseling Association (ACA; 2014), the American Psychological Association (APA; 2010), the National Board of Certified Counselors (NBCC, 2005), and the National Career Development Association (NCDA; 2007) possess language related to the appropriate use of assessments within the context of service provision.

**Assessment Competence Development**

The helping professions have long been active in their use of assessments in the provision of services. The administration of assessments is a necessary skill within identified competences for counselors (CACREP, 2009). The development of competence in administering counseling assessments has been indicated as an important element for psychologists-in-training in the potential for their internship and job placement with internship site supervisors expecting graduate programs to properly prepare graduate students to be competent in administering assessments (Watkins, 1991). A working group of psychologists focused on psychologist assessments offered perspectives on ways in which to address the development of skills in the area of psychological assessments. In terms of future directions, the group emphasized that there is insufficient attention to concerns related to supervision of psychological assessments. There also seems to be a dearth of information and absence of empirically-based guidelines for supervision and training in assessment skills. They emphasized the need for the development of specific models of supervision in psychological assessment (Krishnamurthy et al., 2004).

There has been discussion around methods for addressing competency development in the administration of assessments. Finkelstein and Tuckman (1997) offered a framework built on the work of Harty (1987) that outlined stages designed to provide a structure in which to guide the process of enhancing practitioners’-in-training abilities in the selection, administration and interpretation of assessments. The stages include: 1) Learning the Basics of Testing Administration and Scoring; 2) Generating Primary Inferences; 3) Clustering Related Hypotheses; 4) From Outline to Written Word; 5) Internalizing Diagnostic Norms; 6) Autonomy with Consultation; 7) Striking Off on One’s Own; and 8.) Passing the Torch. Though seemingly useful in the provision of a structured approach to this process, these models are somewhat dated and lack empirical evidence of their utility.
Career Assessments

Today, professionals use career assessments to help individuals identify specific characteristics and then connect them to career options (Osborn & Zunker, 2011). The genesis of career assessment began with Frank Parsons, a man considered to be the founding father of vocational counseling. In his book, Parsons (1909) describes a clinical interview whereby a client’s level of self-knowledge is gleaned, querying a client on their schooling, family background, aptitudes, and interests. By today’s measures, this unstandardized approach may be viewed as elementary, however, Parsons’ model provided the bases for what is now a robust assessment industry (Zytowski & Swanson, 1994).

Career assessments are used in a variety of settings, including k-12 schools, community workforce centers, higher education career centers, military branches, and private practice. Similarly, career assessments are administered and used in practice by a diverse array of professionals such as career counselors and practitioners, school counselors, professional counselors or psychologists, and researchers. It is apparent that career assessments have a broad reach throughout industry, setting, and clientele. Given this reality, supervisors seem ideally positioned to assist trainees in achieving competence in career assessment administration and interpretation.

The Standards of Educational and Psychological Testing, produced through a collaboration of three associations (American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education), was developed to promote the ethical use of assessments. In addition, it provided a basis for evaluating the quality of assessment practices (AERA, APA, & NCME, 1999). Given the breadth of the use of assessments, it is important to consider strategies for developing competence in this aspect of career services. This discussion is intended to provide strategies in developing competencies in career assessment delivery for individuals and organizations that use and supervise assessment administration and interpretation.

In a document that outlines the guidelines of career counseling competencies, the National Career Development Association (NCDA) summarizes specific aspect of career service delivery to consider in the use and interpretation of career assessment (National Career Development Association, 2009). The competencies outlined related to career assessments are being skilled in such areas of career assessment such as the use of computer-delivered assessments, determining the appropriate use of group and individual assessments, assisting clients in the appropriate interpretation of the results, and effectively generating reports outlining the results. Given the developmental nature and specificity of the com-
petencies, attention to these areas within ongoing supervision appears warranted. Before discussing the intersection of competence in career assessment delivery and supervision, it is important to examine the different levels of assessments as this can inform discussions on the appropriate utilization and supervision of assessments.

Assessment Qualification Levels

Based on recommendations from the Standards of Educational and Psychological Testing (Joint Committee on Test Use Practices, 1999), test publishers (e.g., PAR or Pearson) have implemented qualification levels for assessments and inventories in order to ensure the individuals providing assessment services are well qualified to do so. For example, Pearson delineates a tiered system detailing specific credentials necessary to purchase and administer particular assessments (Knowledge Center, 2014). It is important to recognize that while certain assessments are clearly identified for use by individuals with extensive experience, trainees may administer and interpret such assessments under the supervision of a qualified individual. In the supervision of career assessments, supervisors must first consider their own qualifications when determining appropriate assessment interventions for a client of a trainee.

Level one assessments do not require special qualifications from individuals wishing to purchase or use particular assessments. This level includes assessments such as the Self-Directed Search (SDS; Holland & Messer, 2013), Career Attitudes and Strategies Inventory (CASI; Holland & Gottfredson, 1994), Career Decision-Making System (Harrington & O’Shea, 2000), or the Mental Status Checklist (Schinka, 1988). Individuals who wish to purchase, administer, or interpret level two assessments must have a Master’s degree in a related field (typically counseling, mental health, social work, speech-language pathology, etc.), certification from a professional association, or formal, supervised training. Assessments in level two include the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a), NEO (Costa & McCrae, 1992), Myers-Briggs Type Indicator (MBTI; Myers & Myers, 1993), or the Strong Interest Inventory (SII; Strong, Donnay, Morris, Schaubhut, & Thompson, 2004). Finally, level three assessments require a doctorate in psychology, education or a related field, or specific licensure from a governing body. Assessments such as the Minnesota Multiphasic Personality Inventory -2 (MMPI -2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), Wechsler Adult Intelligence Scale (WAIS; Wechsler, 2008), or the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1994) make up the third level of assessment.

In considering the clinical supervision of career assessments, it is important to distinguish between the various levels of the inventories. For
example, assessments such as the Self-Directed Search or the Career Attitudes and Strategies Inventory may be appropriate to use in supervision when the supervisor is a graduate student or a professional with minimal experience. These level one assessments may also be suitable tools for use in peer supervision. However, if a supervisor and trainee determine a client would benefit from an inventory such as the Career Thoughts Inventory or MMPI, the trainee must be provided with supervision from a qualified professional.

**Best Practices in Supervision of Assessments**

According to the Joint Committee on Test Use Practices (JCTP; 1999), professionals who use assessments in practice should have a clear rationale for the intended use of the assessment and possess the appropriate knowledge in the administration and interpretation associated with this process. Common methods of ascertaining competency in assessment include graduate coursework, specialized training, and obtaining supervision regarding the assessment method and procedure. Supervision has been defined a means for trainees to acquire the skills and knowledge necessary for ethical practice (Holloway & Aposhtan, 1994), while supervisor qualities are described as having formative, normative and restorative properties (Inskipp & Proctor, 1993). Acknowledging the purpose of supervision and the qualities of a competent supervisor provides a structure in which to process the development of career competence for trainees.

The process of utilizing assessments can be segmented into subcategories of test selection, test administration, and test interpretation (Hays, 2013). Test selection has been designated as the decision-making process career practitioners use throughout the counseling relationship to aid in client evaluation and treatment planning using a wide range of assessment methods (Hays, 2013). Though Test administration is not as clearly defined due to the varying nature of the process which is modified due to audience, purpose, and format. In general, this includes the steps involved in introducing and giving the test. Test interpretation consists of much more than simply scoring an assessment, but involves the intentional integration of content throughout assessment interpretation which can enhance the therapeutic benefits of this process (Hays, 2013). In relation to supervision, consideration of the trainee’s level of competence within these difference domains can provide insight at to areas of most need. Evaluating trainees in relation to these specific areas of career assessment delivery and providing targeting support to match the needs of the trainee appears a useful schema for supervision. Wood (2009) posits that trainees first learn how to interpret career assessments through the interpretation of the findings from their own assessment results. This
recommendation is provided within the perspective of a strength-based approach, wherein trainees and clients acknowledge that the purpose of career assessment is to create options, as opposed to eliminating options. Through this process, trainees are taught how to appropriately select career assessments considering psychometric properties such as reliability and validity. Whiston (2001) offers a conceptual framework designed to aid practitioners in assessment selection, including the consideration of practitioner career knowledge, role of functioning, time, etc. Supervisors can use this framework in training trainees in assessment selection. In addition, Osborn and Zunker (2012) offer a model of assessment selection and the role of assessment in career counseling.

**Specific Strategies**

One-on-one supervision, group supervision, role plays, and observations are common techniques in supervising career practitioners (Reid, 2010). Similar techniques may be useful in the supervision of career assessment. For example, a supervisor might find it beneficial to engage in a role-play with a trainee during supervision time. The role-play can focus on topics such as introducing a measure to a client, explaining the purpose of a measure, and clarifying any questions a client may have about the assessment. Following this role-play, the trainee is given constructive feedback for the purpose of further preparing him or her to conduct an assessment session. Observation may also prove fruitful in the supervision of career assessment, wherein a supervisor observes (either through a two-way mirror or recording) an assessment or feedback session conducted by a trainee.

Repetition in supervision of career assessments is another important element in developing competence. Etheridge and Peterson (2010) found it essential for career practitioners to have continual supervision in the delivery of career assessments such as the CTI (i.e., 30 assessment administrations) to achieve a transitional level of competence indicating an ability to integrate the assessments with a client’s presenting problem. Though this magnitude in supervising assessments may seem difficult to attain, this research indicates the need for ongoing attention to career assessment administration by processing trainee experiences with this process within supervision to develop competence in this aspect of service delivery.

Building on this research, Ethridge and Peterson (2010) developed a prototype to measure competency in the use of assessment in career counseling, called A Measure of Assessment Competency (AMAC). The instrument provides a global score of the level of competence related to six test items. Findings from this study reveal that the AMAC is a reliable and valid measure that provides an accurate estimate of the extent to which
a trainee demonstrates general competence in the use of career assessment. Supervisors might find this resource a helpful, objective measure to determine the assessment proficiency a trainee has achieved.

While the utility of career assessments are an important component of career services, one aspect of the work of a supervisor is to assist trainees in understanding the purpose of assessments in a broader context of a helping interaction. Assessments should be used in conjunction with other forms of intervention (e.g. clinical interview, inquiry) to provide both the trainee and client a more comprehensive depiction of the client by integrating developmental components, decision-making style, and macro level factors impacting career decision-making. The goal of effectively integrating career assessment results within a broader strategy of career goal attainment appears an important aspect of effective career service delivery.

The following case study is provided to illustrate the application of strategies to develop competence in the different aspects of supervision. The case study is a fictional depiction of a career-oriented clinical interaction taking elements for the authors’ experiences. Though the strategies offered are connected to the specific case, it is encouraged for the reader to consider the application of these concepts to other supervision experiences. The case study is an accumulation of the authors’ experiences in supervision and not an actual clinical interaction as to avoid any potential identification of supervisor or trainee.

**Case Study**

Stacey was a beginning professional counselor working in a university career center. She was in her first year of practice having graduated from an accredited counseling program. Her work had largely involved providing drop-in advising and individual counseling to both students of the university and members of the community. As part of the service-delivery structure of the facility, ongoing supervision of her counseling work was provided on a weekly basis.

Wendy, a senior staff member of the career center serving as Stacey’s supervisor, provided individual supervision focused primarily on her clinical work, with administrative tasks being accounted for in other contexts such as staff meetings. After several weeks of weekly supervision, it was collaboratively determined that developing skills in career assessment delivery would benefit Stacey in her work with visitors to the career center. Wendy and Stacey developed the strategy for identifying specific areas in which to address the career assessment delivery process beginning with selection of assessments to the reporting of results. To initiate this process, Wendy suggested Stacey administer at least two assessments...
prior to their next weekly meeting and bring the assessments to supervision. Stacey decided to administer a CTI and a SDS for the purposes of processing her utilization of these assessments.

The subsequent session began with a discussion of Stacey’s previous week in the career center. She had indicated she possessed a heightened awareness of the potential for her to utilize various career assessments with those she served since her last supervision meeting. She produced the results of both a CTI and a SDS, which were administered within drop-in advising interactions in the career center.

Wendy inquired about her process of selecting these assessments with her clients. Stacey indicated she selected the CTI due to her client continually sharing negative thoughts related to her ability to secure meaningful employment. She chose to utilize the SDS with another client as there seemed to be a lack of awareness in relation to options connected with the client’s interests. Stacey’s discussion of her thought process in selecting the assessments appeared reasonable related to the intended focus of the assessments.

Stacey shared that she explained the purpose of the assessment to each client prior to having her/him complete the assessment. She indicated being comfortable in explaining the SDS to the client, but struggled somewhat in her discussion of the CTI. She indicated uncertainty on the specific purpose of the CTI as the client appeared initially hesitant to complete the assessment. Wendy made note of this comment to process later in supervision.

Additional exploration of Stacey’s use of the assessments uncovered her anxiety in processing the results with her clients. As she was discussing the results of the CTI, she sensed the client did not fully agree with the results. With the SDS, Stacey indicated she was unsure of how to develop action steps for the client related to the results. Wendy affirmed her attempt to utilize the assessments and somewhat normalized her difficulty indicated the complexity in utilizing career assessment in working with clients. Based on what was reported, Stacey was identified as struggling with test administration and test interpretation. Stacey’s struggle with explaining the CTI along with processing the results and action steps with both assessments were cited as evidence for attending to these areas of growth related to career assessment delivery.

Wendy and Stacey discussed strategies for addressing these areas of competence. While Wendy had ideas as to methods for addressing these aspects, she inquired about Stacey’s thoughts on strategies for addressing these concerns. Stacey indicated she has a preference for seeing other
people do something prior to her engaging in a task. Wendy offered the suggestion of Stacey shadowing her colleagues in the career center as they are administering career assessments. Wendy also suggested engaging in a role play in supervision in which a scenario of introducing the CTI and SDS as well as processing the results of each assessments would occur. Wendy would begin by serving as the practitioner in order to be able to provide feedback to Stacey. The roles of career practitioner and client would then switch with Stacey serving as the practitioner and Wendy the client. Finally, it was determined that increasing the frequency of the use of the CTI and SDS in Stacey’s interactions with those she served would also assist in developing competence in these areas. Stacey agreed to administer three CTIs and three SDSs if possible prior to their next supervision session and to bring the results to their subsequent meeting.

The rest of this supervision session involved a role play related to the CTI with particular attention to the introduction of the assessment and the processing of the results. While Stacey indicated being nervous, she expressed her valuing the activity as it provided a model in which to reference in her work. The session concluded with a review of their strategies related to developing competence in career assessment delivery.

**Outcome of the Case Study**

In the next supervision session, Stacey shared she was able to administer three CTIs and two SDS to her clients in the career center. She also indicated that the role play in conjunction with shadowing her colleagues who administered career assessments were especially helpful as it provided an additional depiction of methods for administering the assessments. Wendy inquired about Stacey’s perception of her skills in this area. Stacey mentioned that she felt more comfortable introducing the CTI due to obtaining additional language in which to discuss the assessment with clients. Terms such as “a tool to gather information” appeared to be demystify the intention of the assessment seemingly impacting both her and her client’s comfort level with the instrument. Stacey indicated her self-efficacy in test administration had significantly improved.

In terms of her ability to process the results, Stacey indicated she seemed to be slightly more effective in developing action steps related to the results of the SDS. Using the options generated from this assessment to develop strategies for researching options appeared more fluid to her after processing this topic in supervision. She shared that she still senses a need for growth in test interpretation and hopes to continue shadowing her colleagues as well as role playing during supervision. Wendy referenced the professional manuals of both assessments assigning manageable passages to read for the next supervision session to enhance Stacey’s knowledge related to the specific assessments and the meaning of the
results as it relates to the client’s career development. It was determined that continual tracking of assessment usage and processing these interactions within supervision would be useful going forward. Wendy affirmed Stacey’s growth to this point and expressed her confidence in being able to collaboratively enhance Stacey’s skills in this aspect of career service delivery. Ongoing supervision meetings ensued with these strategies being hallmarks of their supervision interaction.

Conclusion
Career assessments offer rich information related to the needs of those struggling in their career development. While some information is provided within formal career practitioner training related to career assessment administration, it appears attention to ongoing methods for developing competence in test selection, test administration, and test selection is warranted. Supervision offers a context in which skills in this aspect of career service delivery can be enhanced. Structuring supervision to fully attend to areas of growth for trainees in the selection, administration, and interpretation of career assessments is critically important to their development as competent career practitioner. Assessing the competence level of trainees, processing strategies for competence development, and ongoing attention to this topic typify effective supervision of career assessment delivery. In firmly committing to assisting trainees in their development in this vital aspect of career services, supervisors positively impact both the practitioner and those receiving services in achieving their career development goals.

References


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MULTICULTURAL CAREER ASSESSMENT: Practical Application
by Kathy M. Evans and Stacey Olden

Due to the requirements for national accreditation and ethical standards, today’s career practitioners, in large measure, have been trained in multicultural counseling and have an understanding of what it means to provide culturally appropriate career counseling. While career assessment is one of the core areas of training for counselors in general and career counselors, specifically, multicultural assessment is often a challenge. The American Counseling Association (ACA), the Association for Assessment in Research and Counseling (AARC), and the National Career Development Association (NCDA) have all specified the ethical use of assessment with diverse populations as well as the competencies and standards that counselors must possess in order to offer multicultural assessment services (AARC 2012; ACA, 2014; CCE, 2010; NCDA, 2003). While practitioners may be aware of these documents, many counselors leave their initial training knowing what they should do but may be unclear as to how to assess their diverse clients or how to choose culturally appropriate assessments. The purpose of this article is to suggest strategies for practitioners to use to enhance their skills in providing culturally appropriate assessment. Two models for cultural assessment will be used to help accomplish that goal. The first is Flores, Spanierman, and Obasi’s (2003) Culturally Appropriate Career Assessment Model (CACAM) and the second is the adaptation for career counseling of the Cultural Formulation Outline and Interview of the Diagnostic and Statistical Manual of Mental Disorders (Leong, Hardin, and Gupta, 2007). According to several reknown multicultural authors and researchers (Leong, et al 2007; McAuliffe, 2012; Sue & Sue, 2012), it is important that before counselors engage in work with culturally different clients, they must be secure in their own cultural identities and worldviews. Therefore the first assumption made for the use of the suggestions given in this article is that counselors have done this work and are aware of their own cultures, worldviews, values and beliefs. In addition, it is assumed that counselors a) fully understand measurement principles (i.e. reliability, validity), b) possess knowledge about how to evaluate measurement instruments and c) are competent in test interpretation.
CACAM
The CACAM (Flores, et al., 2003) is designed to help counselor synthesize client information about culture and to develop plans to find a solution to the problem or to make a career decision. CACAM has a four-step approach to culturally appropriate career assessment:
Step 1 Information Gathering
Step 2 Selection of Career Instruments
Step 3 Administration of Career Instruments
Step 4 Interpretation of results

Step 1. Information Gathering
The Outline for Cultural Formulation from the Diagnostic and Statistical Manual (DSM) V (American Psychiatric Association, 2013) will be used in step one of the CACAM. The cultural formation outline was added in the DSM IV to assist practitioners in serving multicultural populations. In a special issue of the Journal of Career Development, several authors applied the original outline to career assessment with African Americans, Asian Americans and Latinos/as (Byars-Winston, 2010; Flores et al., 2010; Leong et al., 2010). In the updated DSM V, the outline was revised and a Cultural Formulation Interview (CFI) was added. The CFI lists 16 questions that cover four domains a) cultural definition of the problem, cultural perceptions of cause, context, and support, cultural factors affecting self-coping and past help-seeking, and cultural factors affecting current help seeking (CFI, 2013). It is suggested that counselors obtain demographic information from clients prior to the first session and that they may use as much of the interview as they see fit. The Cultural Interview not only suggests what should be done but also helps with how it is done by providing questions to ask clients. In the interest of space, only part of the interview will be addressed. The Cultural Definition of the Problem/Career Issue) focuses on clients’ perspectives of the problem and how clients relate their problem to family members, friends and other significant people. A potential question is “Sometimes people have different ways of describing their problem [career issue] to their family, friends, or others in their community. How would you describe your problem to them?” (CFI, 2013, p.2). This question invites clarification of cultural expectations. The next section is clients’ Cultural Perceptions of Cause, Context and Support which helps counselors understand the client’s view of the career issue, his or her worldview and perceptions of cultural influences. This is in line with the suggestion by Flores et al. (2003) to assess clients’ “racial or ethnic identity, acculturation, worldview, socioeconomic status, gender role expectations, family expectations and responsibilities, primary language, and relationships.” (p. 84). Leong et al. (2010) reminds counselors to explore clients’ level of acculturation and whether their beliefs about their own membership in a
minority group are perceived as positive or negative. The CFI questions ask what the client and significant others believe is the cause of the career problem, the role others play in supporting the client with this problem or in contributing to the career problem; the role that cultural identity, spirituality and psychosocial stressors play on the issue. Questions suggested on the CFI to help counselor understand the client’s worldview and perceptions of cultural influences are “For you, what are the most important aspects of your background or identity?” (p. 2) and “Are there any aspects of your background or identity that are causing other concerns or difficulties for you?” (p. 2). The Cultural Interview also helps counselors explore the cultural elements of the counselor/client relationship. As Flores et al. (2003) state “We cannot emphasize enough the importance of the therapeutic relationship throughout the career assessment process with culturally diverse clients” (p. 82). A CFI question that may be adapted by career practitioners is: “Sometimes doctors and patients misunderstand each other because they come from different backgrounds or have different expectations. Have you been concerned about this and is there anything that we can do to provide you with the care you need?” (CFI, 2013, p. 3). By adapting these question to reflect their own roles, career practitioners help facilitate their relationships with their culturally diverse clients. Taken together, these focused questions should provide counselors with a good view of the career problem as well as the cultural underpinnings and the importance that culture plays in their clients’ lives.

Case Study.
Sylvia Lane is a 45-year-old African American woman. She presents for career counseling because low scores on the GRE have hindered her from advancing in her career. Sylvia grew up in Brooklyn, NY with her mother, father, two brothers, and a sister. Sylvia’s family was a middle class, Christian family with strong family values. Although her mother had a GED, and her father only completed the eighth grade, they taught their children that education was important. Sylvia was younger than her siblings and very different. Neither of her brothers finished high school, and her sister finished, but did so late. Sylvia’s siblings gave her parents lots of problems, but Sylvia was the opposite, and they always had high expectations of her. From the time she began kindergarten, Sylvia excelled, skipping grades, taking honors classes, obtaining a high GPA, winning awards, etc. When Sylvia took the SAT, however, she did not score as well as expected. That kept her from getting into a top university.

Several years later Sylvia obtained her Master’s degree, and has been enjoying a successful career. Sylvia has always wanted to get her PhD, but she is at the point in her career where she really needs it in order to
accomplish her goals. With her daughter working on her Master’s degree now, Sylvia feels it is definitely time for her to get her PhD, so that she can continue to be a role model for her daughter and other family members. Sylvia’s family is supportive of her career goals and wants to see her do well. Her family looks up to her. She was the first one in her family to go to college, and the only one that has an advanced degree.

When her counselor conducted the CFI, she found that Sylvia was knowledgeable about testing and was aware of the issues of test bias as it concerned ethnic minority groups. She believes the cause of her anxiety over taking the GRE is that she believes it is an unfair test and is resentful that graduate schools require it. Most all of her family and friends empathize and often talk about ways African Americans continue to be oppressed. In terms of her racial identity, Sylvia seems to have a positive idea of herself as a racial being and people in her cultural group who are like her, but is not as accepting of those who do not come up to her standards in terms of work ethic. However, Silvia was glad to see that her counselor was also an African American woman. Sylvia’s coping skills come from her upbringing in the African American Episcopal Church and she prays over this test often. She has signed up for tutoring and is seeking counseling to help with the anxiety. The counselor sees that Sylvia’s race, ethnicity and spirituality are very important to her identity and will use that information as they move along in their sessions. Her counselor suspects that obtaining the Ph.D. has less to do with the career opportunities that it affords and more to do with how Sylvia is seen by her family and community. Her counselor suggests they work on Sylvia’s perception that getting a good GRE score is beyond her because of her race (stereotype threat). This will most likely involve helping Sylvia create a new story about standardized testing. Helms (2006) suggested that racial identity and attention to stereotype threat should be included in the assessment process so that clients’ issues could be dealt with more specifically than putting clients into some category.

**Step 2: Selection of Career Instruments**

The AARC Standards for Multicultural Assessment (AARC, 2012) specify that counselors carefully select appropriate assessments and diagnostic techniques for their diverse clients and that they use those instruments and techniques that “help identify client needs, strengths and resources for client empowerment and self-advocacy” (p.3). In that vein, we begin the discussion of selecting instruments with an overview of qualitative approaches to career assessment. Qualitative approaches can be appropriate for diverse groups because they specifically address the client’s subjective reality. Qualitative approaches do not have norms, they do not have biased items and they do not have right or wrong answers. Often
counselors are able to answer many of their clients’ questions through the conversations that come from qualitative assessments.

**Qualitative Assessments.**
Card sorts help clients determine their skills, interests, and values. The clients themselves sort the cards according to their own preferences. Usually the cards are sorted into piles that resemble a five-point Likert scale (e.g. Strongly Agree to Strongly Disagree; or Extremely Interested to Extremely Disinterested). This type of instrument allows for clients and counselors to have conversations in which clients are able to discuss their reasoning for the placement of interests, skills and values. Such conversations may allow for deeper exploration of career interests, skills, and values. While counselors can create their own, published resources for card sorts exist such as the Career Values Card Sort (Knowdell, 2006) and the Occupational Interests Card Sort (Knowdell, 2013).

Clients may also complete self-assessments of their skills in lieu of standardized tests. Using this strategy to assess skills removes most of the stress and other problems related to standardized instruments. Although clients may over or underestimate their own skills (Whitson, 2012), these kinds of assessments provide an opportunity for the counselor and clients to engage in conversation about their skills and discuss cultural issues that may arise concerning their abilities. Some published sources of self-assessments include the Harringon O’Shea Career Decision-Making System (O’Shea & Feller, 2008), as well as the Self-Directed Search (Holland, Fritzscche &Powell (1994) and the Campbell Interest and Skills Survey (Campbell, Hayne, & Nilsen, 1992).

Thorgren & Feit (2001) created the Career-O-Gram which is “a symbolic illustration of the client’s career decision-making” (Brown, 2012, p. 149). It provides a structured approach for counselors and clients to discuss cultural, environmental, and contextual factors that influence clients’ lives. Essentially, the counselor asks the client about early career aspirations and explores with the client how he or she client decided whether or not to pursue this career. The Career-O-Gram allows the counselor and client to examine contextual factors that influence the client’s lives and are salient in his or her career decision-making which makes it especially useful with diverse clients.

The Career Genogram (Okiiis, R. W., 1987) is another qualitative tool that will help clients identify the context of their decision making. It is a variation of the genograms used in family counseling in which the client and counselor develop a three-generation family tree with the expressed intent of identifying occupations in the family and attitudes about work. The genogram highlights the ways families can impose work stereo-
types and influence career choice through their expectations (Brown and Brooks, 1991; Okiishi, 1987). Clients who come from collectivist cultures may not see this familial or cultural influence as negative and that is an important issue to explore with the client (Flores et al, 2010). Of course career counselors are seldom able to avoid standardized testing because they can be expedient, cost effective, and widely used by others. The following discussion will cover strategies for choosing, administering, and interpreting career instruments for diverse clients.

Standardized Assessments.
Standardized assessments have been criticized for bias in content, criterion relationships and internal structure (Whiston, 2009). Of most concern to counselors and educators are standardized tests of ability, aptitude, and achievement. As a result, authors have concluded that these biased standardized assessments are responsible for over-enrollment of ethnic minorities in special education (Thompson, 2012) and their under-enrollment in gifted education (Steele & Aronson, 1995); lower scores on college admissions exams; the achievement gap between minority and majority students and stereotype threat-- ethnic minority student awareness that members of their minority group score lower on aptitude tests than majority students results in those students not performing well themselves (Cadinu, Maass, Rosabianca & Kiesner, 2005; Steele & Aronson, 1995). Given the debate over test bias, it is difficult for counselors to judge the appropriateness of a standardized assessment for their diverse clients.

In career counseling, assessments are conducted for four different reasons: a.) prediction, b.) discrimination, c) monitoring, and d) evaluation (Herr & Cramer, 1996). A client question that may be answered through tests of prediction might be: Can I succeed at that type of activity? Tests of prediction, therefore, include ability, aptitude, and achievement tests. Tests of discrimination may answer the question: What am I like compared to my peers? These tests will include interest, personality, and values inventories. The question Am I where I should be in terms of my career development? may be answered by tests that monitor behavior. These include such tests as the Career Maturity Inventory or the Career Development Inventory. Tests of evaluation are primarily used to assess how well counseling is meeting the client’s needs.

Tests of Discrimination.
In terms of tests of discrimination, interest inventories may be the most used assessment of this type. The popular instruments in use today such as the Strong Interest Inventory (SII) have been scrutinized for bias. In fact, authors of the latest revision of the SII report that the differences between men and women remain pronounced enough to continue with a
scale for men and another for women (Su, Rounds, & Armstrong, 2009). Although the Strong was re-normed in 2004, it lacked a large enough number of non-White participants in the normative sample to match their numbers in the larger U. S. society (Kelly, 2010). In addition, the research on interest inventories across cultures indicate that although there are no significant structural differences between Whites and non-Whites (Flores et al., 2006; Fouad and Mohler 2004, Gasser 2007), cultural influences may carry a greater weight than individual interests of some clients. According to Ott-Holland, Huang, Ryan, Elizondo, and Wadlington (2013), in "societies where collective action is valued, environmental factors may have a stronger influence on career choices than an individual’s personality" (p. 579).

Evans (2008) cautions that because of discrimination, socialization, and test bias, many cultural and ethnic minorities, GLBT, White women, and individuals with disabilities narrow career choices. If the counselor’s goal is to increase career options for his or her clients, interest inventories like the SII that reflect the stereotypes of the dominant culture should be used with caution. Evans suggests that counselors expand their clients’ exploration to include careers in non-traditional fields that they show some interest in. Inventories of personality (MBTI) and values (Values Inventory) can be handled in much the same way as interest inventories.

**Case Study.**

Carlos Diaz is a 21-year-old Latino male who identifies himself as “an openly gay man.” Carlos still lives at home with his mother and his 19-year-old brother. Carlos says he is trying to “find” himself right now. He stated he has no idea what he wants to do for a living. He admitted that he never really gave it much thought, so he was unsure what kind of jobs he is interested in. His mother recently told him that he has to move out soon. What is upsetting to Carlos is that his mother has not asked his brother to move out even though he also is not working or going to school. Carlos notices that his mother gives his brother preferential treatment. It has not always been that way though. He began noticing the difference after he admitted to his mother that he was gay.

Carlos states that one of the main reasons he has not been as proactive as he should about getting a job is because of his fear. He expressed that he is afraid of how potential employers would respond to him because he is an *out of the closet gay man* . Carlos has already experienced being rejected by employers. He believes he was denied employment due to his sexual orientation, and he worries that will continue to occur. Carlos has also experienced rejection from members of his own race. Other Latinos/as have often ostracized Carlos because of his sexual orientation. This has caused Carlos to feel a great deal of frustration, anxiety, and
hopelessness. He is confused and unsure about his employment future. Carlos presents for a career assessment to help him identify his interests and jobs that will be ideally suited for him.

Carlos met with his counselor and immediately asked about taking a test that would help him figure out what he can do with his life. He is definitely feeling the pressure to leave home. However, Carlos wants to do something other than boring jobs he’s seen his friends do nor does he want to do the skilled labor his relatives do. His counselor explains to him that he will administer several different kinds of assessments because many of the standardized tests that Carlos is asking for do not have enough information on how well they work with Latinos or for GLBTI individuals. The use of several measures will help to balance out the results. Research has shown that sometimes cultural groups score differently on these kinds of assessments. He wanted Carlos to know that if they go with the standardized test, research has shown that gay men’s interests tend to cluster around non-traditional choices for men (Chung & Harmon, 1994; Croteau, Anderson, & Distefano, 2000) and that he may not learn what he had hoped from this assessment. The counselor promised to spend a lot of time going over the results and discussing how they apply to Carlos’ life.

**Test of Prediction.**
Test of prediction include standardized tests of ability, aptitude and achievement. As stated previously, these are the tests that get the most attention in the media because a) their use is widespread b) they have the greatest impact of all testing on a person’s life and c) the No Child Left Behind legislation resulted in high stakes testing. The American Counseling Association (ACA) states that high stakes testing “carries with it serious consequences for students and/or others in the educational community (e.g., whether or not a student receives a high school diploma or is promoted to the next grade, whether or not a school or school district receives rewards or sanctions based upon student performance).” (ACA, nd., p.1.) According to Helms (2006) although it has been proven many times that several ethnic minority groups tend to score lower than whites, no one has been able to determine why the phenomenon occurs. While researchers speculate on the cause and work on a solution for this discrepancy, counselors face the reality of the clients’ need to take such tests in order to enter or advance in their careers.

**Tests that Monitor.**
There are existing instruments that monitor career behavior and that try to understand the progress a client makes in counseling. In career counseling that would include, among others, the Adult Career Concerns Inventory (ACCI) and the Career Development Inventory (CDI). Unfor-
tunately the most recently updated CDI included some of the same constructs as intelligence tests with the same uneven result where minorities groups score lower than Whites.

**How to choose.**

When counselors have clients who need testing, counselors need to ensure that the assessments they use will enhance clients’ knowledge of themselves. In choosing which test to use, counselors are trained to look for reliability and validity data. However, even that can be misleading. An instrument that may be reliable and valid for one group of people may not mean that it is reliable and valid for other groups. In fact, it is test reliability and validity that are questioned when there are claims of test bias. Test authors of the widely used instruments have taken strides to eliminate content bias and authors of these instruments like the Strong Interest Inventory tend to follow the recommendation of engaging a diverse panel of experts to review items for any obvious signs of bias—content bias. In addition, test authors may use statistical procedures (e.g. differential item functioning) to determine whether or not test items are responded to differently for specific diverse groups (Whiston, 2012).

The predictive nature of an instrument may be biased if it predicts performance for one group but does not predict performance of other diverse groups and this test bias has far-reaching consequences. Problems with reliability and validity of tests of prediction (SAT, GRE) are particularly significant, for career clients’ very futures may depend on how well they perform on standardized tests. Evans (2013) made the following recommendations regarding test selection. Counselors should choose tests that:

a) have an equal percentage of diverse individuals in the norming sample as those represented in the general population. For example, if Latinos/as represent 16 per cent of the general population then the normative sample should be 16 per cent Latino/a; b) provide analyses that state that there are no differences in the responses of individuals from diverse groups (your clients’ group included) and the dominant White population; c) provide no data for your client’s particular group but the counselor is prepared to explain the issues of test bias during interpretation; and d) are written in the language the client is most comfortable reading which includes the client’s reading level.

**Step 3 -- Administration of tests.**

Counselors understand that administering a standardized test involves everything from making certain a child has had breakfast before testing to making certain that clients who need special accommodations get them. It can also involve making certain that there is a pleasant, comfortable environment for clients taking the test. Sometimes that may mean moving the assessment out of the counseling center or agency and into
the community. Counselors must be familiar with the tests, the administration, and scoring. This usually means that counselors need to have taken the test themselves. Then, the task of preparing clients for the test becomes less daunting. Clients perform better when they know what to expect and understand the limitations of the assessment instrument and counselors should provide that orientation (Wall, 2013).

**Step 4: Interpretation.**

Interpretation of the test should not only include the results - the counselor should bring to the session everything he or she knows about the client from the cultural interview through discussion of the problem through test selection. Interpretation can become problematic when counselors decided to use an assessment measure even if it is lacking some of culturally sensitive attributes. The interpretation is where it all comes together for the client and the counselor so that the client is able to understand the results in relation to his or her own life. According to Evans (2013) some good lead-ins for interpreting scores with clients are:

*We decided to use this assessment because….  
*This assessment has limitations for you because….  
*What do you think?  
*A few of the things that are important to you as a _____ are … and this assessment ___. Am I right?  
*What all this means for you, according to what you have told me is ___.  
*Does this sound right to you?  (p 58).

**Conclusion**

This article was designed to assist practitioners in exercising their multicultural knowledge and skills in assessment. The CACAM assessment model guides counselors in the process while the CFI helps them to understand how culture affects the individual client. The specific client questions for use with standardized assessment helps may provide some clarity as to when to test. Multicultural career assessment does not need to be an overly complicated task but it does require that counselors go the extra mile to make certain that clients are getting the help they need in their career development process. When counselors use only those assessments that answer client questions, assessment is not only focused on the client wants and needs but also helps to focus the interpretation of those assessments. In addition, bringing in the cultural assessment at the beginning of the counseling process enables counselors to establish the centrality of culture in the client’s life but also plan strategies for intervention that honor the client’s worldview and culture.

**References**


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TESTING or ASSESSMENT: Choosing the Ethical Ideal, by Sharon K. Anderson, Jacqueline J. Peila-Shuster, Laurie Carlson, and Aron Szamos

Introducing

Sometimes clients want answers and want them fast. We as helping professionals can feel the press to provide the answers to fix the client, their situation, or their anxiety about the situation. In the career development context, even the most seasoned career professional can fall into the fix-it mode or the test and tell trap. Clients may misconstrue career counseling as being all about a test telling them what career to pursue or a career professional telling them how to gain employment. But there is much more to exploring career interests and gaining employment that is fulfilling, including distinguishing between testing and assessment. It is not surprising that clients are unaware of the difference between testing and assessment, as many career professionals themselves struggle with these concepts and how to articulate the differences to clients. In this article, we address the difference between a client taking a test and a career professional doing an assessment. We frame this distinction through an ethical lens. In addition, we provide a case study that illustrates best practices through an ethical lens. We draw upon the current code of ethics of the National Career Development Association (NCDA, 2007) and ethical principles (Kitchener & Anderson, 2011) to highlight the ethical ideal and best practices when faced with the test and tell scenario. It is important to note that the NCDA ethics code uses the term career professional rather than career counselor. The purpose behind this wording is to cast a broad net to include professionals who provide career development services in a variety of work settings with various types of clients.

The Difference between Testing and Assessment

Although this foundational knowledge is typically part of any quality career professional training program, popular literature often refers to the terms interchangeably and this leads to confusion regarding the terms and their distinction. Assessment refers to a multi-approach process that integrates “test results, life history information, collateral data, and clinical observations into a unified description of the individual being assessed” (Hunsley, 2002, p. 39). Gersten (2013) articulates that integrated
assessment includes not only formal tests but also interviews and observations. Taking an integrative approach with assessment is the ethical ideal. It calls upon the career professional’s knowledge, skills, ability and diligence in multiple areas. On the other hand, testing is one tool that can be utilized in a comprehensive assessment. The result of testing is one piece of data in the assessment. For the purposes of this article, testing is what the career client is seeking and assessment is what the career professional is ethically obligated to provide in order to best serve the client.

Case Study
Louis is a 23-year-old Mexican male who is a first year, second-semester student at a 4-year university. Louis has yet to decide his major. He arrives in his career counselor’s office at the University’s career center and states that he was referred to the career center to take a test that will tell him what he should do for his career. He mentions that his roommate had taken a test about interests and that test had told his roommate what careers would be good for him. Louis wants to take this test, too. He doesn’t like being in limbo about his college major and his future career. He wants some answers like his roommate got. Jim, a white male in his early 30’s and a career counselor at the center, is assigned to work with Louis.

How should the career professional, Jim, respond to Louis’s request to “take the test”? It is apparent that Louis has come in to take an interest inventory. This is a proactive step for Louis to take since he is undecided on his major. Jim would do well to acknowledge Louis’s proactive approach. However, taking only an interest inventory, a test, is one of many steps in the process. More information is needed before determining an appropriate and ethical assessment strategy. To work toward the ethical ideal, Jim must consider the purpose for assessment which may include any of the following according to Gersten (2013): diagnosis, screening, case conceptualization, monitoring and evaluating intervention effectiveness and counseling outcomes, and engaging Louis in the process rather than solely focusing on the outcome. Jim realizes that client engagement is a probable purpose since Louis came in specifically wanting “the test.” However, additional information is needed to more fully and ethically determine the purposes for assessment and if/what types of formal and informal assessment may best suit Louis and address his specific needs. In order to do good, the ethical principle of beneficence, Louis’s short term and long term welfare needs to be at the forefront of Jim’s ethical decision-making. The NCDA (2007) suggests that career professionals consider the personal and cultural context of their clients when using assessment instruments and must “promote the well-being of individual
clients or groups of clients by developing and using appropriate career, educational, and psychological assessment instruments” (p. 22).

Presenting Concerns and Initial Ethical Issues
Jim, the career counselor, assures Louis that he has heard his desire for taking “the test.” In line with his understanding of ethical informed consent, Jim informs Louis that formal testing, such as an interest inventory, is only one aspect of assessment. Jim explains to Louis that for them to their best work together, Jim needs to consider multiple approaches. Jim shares with Louis that interviews and observations are also important aspects of a comprehensive assessment strategy. Jim assures Louis that they will work together to determine what would be most helpful.

Jim initially seeks to gain some background information from Louis. He finds out that Louis is considering majoring in business because his parents want him to work at their family restaurant. While Louis talks about this, his eyes are downcast and his shoulders are slumped. Louis goes on to relate that before starting his postsecondary education, he spent a couple of years in Mexico in an effort to better understand his cultural heritage as well as get to know his extended family. He relates that his parents are from Mexico, but he was born in the United States. While in Mexico, he became very close with an uncle who urged him to apply for work at the local school. Following his uncle’s suggestion, Louis obtained a paid position assisting in a classroom. When asked about that experience, Louis became more animated. He talked about how he really enjoyed the younger students and got just as excited as they did when they grasped a new concept. Louis described how he drew out the quieter kids and used creative ways to help students learn. At the end of the two years, Louis’s uncle urged him to return to the U.S. to continue his education and also questioned Louis’s thoughts about majoring in business. Jim asks Louis if he has ever considered any other majors or careers, besides business. Louis pauses and then quietly admits that he has considered teaching, but is worried about how his parents would react. He also states that he should get a job that earns more money than teaching and that he has to make sure that he makes the right decision since he is talking about the “rest of his life.”

With this information in hand, Jim has a better understanding of Louis and his concern in deciding a major. Jim starts to formulate more thoughts around further formal assessment. He decides that his initial purpose for assessment is to help both he and Louis better explore, understand, and confirm Louis’s interests as well as explore the thoughts Louis has about careers and his career decision-making process. Jim took specific note of the wording Louis used, especially noticing Louis’s should and have-to statements as well as the varying levels of familial support for, and influences on, his decision-making.
In addition, Jim took note of his own response to Louis’s story. As a sophomore in college, Jim had felt the press from his family to pursue a specific career. He had gone against his parents’ wishes and found great personal freedom in the process. Jim recognizes some similarities between their stories.

**Ethical Issues**

As this case demonstrates, there are multiple factors that need to be taken into consideration. One of the first factors to address is Jim’s own response or thoughts about Louis’s story. Jim knows that his experience, although similar to Louis’s, is still very different. Therefore, in the process of exploration and career decision-making, Jim wants to make sure he honors Louis’s cultural and family of origin values and support him in the process. The NCDA (2007) proposes “career professionals explore their own cultural identities and how one’s cultural identity affects one’s values and beliefs about the working relationship” (p. 4). With this clarity in mind, Jim is ready to look at the other factors.

By taking the time to gain a foundational understanding of Louis through the assessment strategies of interview and observation, Jim is better able to explore and understand Louis’s unique situation and needs. It appears that Louis has some understanding of his interests, although he may not have sufficient language for describing, understanding, and organizing them. It also appears that he has some potential obstacles in terms of his thoughts about career decision-making, and the familial and cultural influences that affect both his feelings of support and his decision-making processes. Thus, part of Jim’s reasoning behind further assessment includes “diagnosis” not in a traditional sense, but in the form of helping to identify, organize, and provide language for Louis’s interests; case conceptualization (forming ideas about why Louis is having the issues he is having); and engaging Louis in the process of career development and exploration. Identifying potential purposes of assessment can allow the career professional and client to develop an appropriate assessment and treatment plan which aligns with the NCDA Code of Ethics (2007): Career professionals and their clients work jointly in devising integrated career services plans (in writing or orally) that offer reasonable promise of success and are consistent with the abilities and circumstances of clients. (p. 5)

According to Gersten (2013), a next step is to determine if standardized testing through the utilization of a formal instrument is needed. While Jim has some information about Louis’s interests, he believes that it would be helpful for Louis to take an interest inventory that would allow them to explore, confirm, and gain more language around his interests. Additionally, helping Louis to recognize some potentially problematic
thoughts and beliefs he has around careers and career decision-making could also lead to fruitful interventions. Jim is very aware that there are cultural factors at play, and he wants to make sure he honors Louis’s culture and his uniqueness within that culture, so he plans to use standardized instruments simply as a starting point. First, though, he needs to determine the appropriateness of the instruments he has in mind because “career professionals carefully consider the validity, reliability, psychometric limitations, and appropriateness of instruments when selecting assessments” (NCDA, 2007, p. 24).

**Instrument Selection and Multicultural Issues**

To assess Louis’s interests, Jim turns to the Strong Interest Inventory® (SII) which has solid evidence for reliability (internal consistency and test-retest) and various forms of validity (Jenkins, 2013). The general representative sample used for norming purposes for most sections of the SII is generally representative of the U.S. workforce in terms of racial and ethnic diversity, although the sample used to develop the Occupational Scales is less so (Donnay, Morris, Schaubhut, & Thompson, 2005). While the norming sample may be representative of the U.S. workforce, Jim did not stop there because he knew that alone did not make the SII a cultural fit, especially since separate norms were not developed specifically for particular ethnicities (see Gersten, 2013). However, the SII has been researched extensively, and considering some of the research literature that found evidence for validity with many ethnicities, including Hispanic Americans (e.g., Fouad, 2002; Lattimore & Borgen, 1999), Jim decides to use the SII with Louis and sees this as an ethical course of action.

Jim also considers the Career Thoughts Inventory (CTI), but upon a quick review of the norming sample, sees that Hispanic Americans were slightly underrepresented (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996). However, the professional manual for the CTI addresses issues of diversity in interpreting and using the CTI, so he knows that this assessment could still be an option in the future. He decides to focus on the SII first, and further develop his relationship with Louis to get a better sense of his cultural values and beliefs and how those interact with his current situation and his career thoughts. Jim decides that informal assessment and discussion regarding Louis’s cognitive beliefs, and his thoughts and feelings around the support he does or does not receive (all grounded within the framework of Louis’s cultural context and values), will be most beneficial at this point. As they continue working together Jim wants to keep the CTI in mind as it could prove useful in pinpointing Louis’s negative thoughts and thus aid in case conceptualization and action planning (Peila-Shuster & Feller, 2013).
Multicultural and diversity issues are addressed in the NCDA Code of Ethics (2007) including specifically within assessment. Throughout this process, the following sections of the NCDA Code of Ethics (2007) pertain to Jim’s choice of assessment instruments:

**E.5.b. Cultural Sensitivity**
Career professionals recognize that culture affects the manner in which clients’ problems are defined. Clients’ socioeconomic and cultural experiences are considered when making a diagnosis.

**E.6.c. Culturally Diverse Populations**
Career professionals are cautious when selecting assessments for culturally diverse populations to avoid the use of instruments that lack appropriate psychometric properties for the client population.

**E.8. Multicultural Issues/Diversity in Assessment**
Career professionals use, with caution, assessment techniques that were normed on populations other than that of the client. Career professionals recognize the possible effects of age, color, culture, disability, ethnic group, gender, race, language preference, religion, spirituality, sexual orientation, and socioeconomic status on test administration and interpretation, and place test results in proper perspective with other relevant factors. (pp. 23-24)

**Administration of the SII**
It is critical for Jim to reflect upon his competence in using and interpreting the assessment he has chosen. His graduate program included a course on tests and assessment, but that is not enough to ensure ethical practice. According the NCDA Code of Ethics (2007), “career professionals utilize only those testing and assessment services for which they have been trained and are competent in administering and interpreting” (p. 22). Since Jim has received extensive training and certification in the Strong Interest Inventory and gives the assessment regularly, he is comfortable with his level of competence and decides to proceed. In doing so, he discusses the SII with Louis. In that discussion, Jim conveys the nature and purpose of the Strong Interest Inventory, how much time it takes to complete, any associated costs, and specifies that the results will be delivered to Jim. He confirms with Louis that his fluency in English extends to written language as well. (Louis assures him that he grew up speaking English alongside Spanish and is completely comfortable with written and verbal nuances of each.) After obtaining informed consent from Louis, Jim provides him with detailed verbal and written instructions on how to access the assessment (which is online), and talks to him about the importance of how and when to take the assessment so as to
obtain the most valid results. An appointment is then set up an appoint-
ment for Louis to return so that they can review the results together.
Jim’s careful explanation of the instrument and instructions on how to
take it were guided by the NCDA Code of Ethics (2007):

**E.3.a. Explanation to Clients**
Prior to assessment, career professionals explain the nature and purposes
of assessment and the specific use of results by potential recipients...
Career professionals consider the client’s personal or cultural context, the
level of the client’s understanding of the results, and the impact of the
results on the client.

**E.7.a. Administration Conditions**
Career professionals administer assessments under the same conditions
that were established in their standardization. When assessments are not
administered under standard conditions, as may be necessary to accom-
modate clients with disabilities, or when unusual behavior or irregulari-
ties occur during the administration, those conditions are noted in inter-
pretation, and the results may be designated as invalid or of questionable
validity.

**E.7.b. Technological Administration**
Career professionals ensure that administration programs function prop-
erly and provide clients with accurate results when technological or other
electronic methods are used for assessment administration.

**E.7.d. Disclosure of Favorable Conditions**
Prior to administration of assessments, conditions that produce the most
favorable assessment results are made known to the examinee. (pp. 23-
24)

**Sharing the Results**
When Jim receives Louis’s results, he first checks the administrative
indices to gain an understanding of the validity of the results. He then
notes that the General Occupational Theme code for Louis is Social,
Artistic, and Realistic. He makes a mental note that he must be careful
to give Louis appropriate explanations regarding his scores since this
instrument compares the individual test taker’s scores not only against
the general reference sample, but also against the gender Louis identified
on his assessment. This can make some of the scores seem confusing.
(For example, Louis’s standardized score on Realistic was lower than his
score on Social. However, his bar graph, which compares Louis against
his self-identified gender, indicates that his Social score is very high and
his Realistic score is moderate.) Jim also checks through the remainder
of the instrument’s results to note patterns and discrepancies. While Jim feels that there is enough evidence of validity and reliability for the SII in its use with Louis, he still wants to interpret the results within the context of Louis’s life and thus give them more meaning. The NCDA Code of Ethics (2007) would support the care Jim is using because “in reporting assessment results, career professionals indicate reservations that exist regarding validity or reliability due to circumstances of the assessment or the inappropriateness of the norms for the person tested” (p. 25).

As Jim begins his interpretive session with Louis, he reflects upon their earlier meeting, articulating his understanding of Louis’s goals for counseling and reminding Louis that testing with formal instruments is only one approach to assessment. Jim then shares with Louis what he heard in the first session regarding family expectations and some of the messages that Louis seemed to be holding onto at that time. Jim also points out that he noticed a difference in Louis’s affect and posture when Louis talked about working in a school as opposed to the family restaurant. Jim is careful to present this information as merely his observations and allow Louis ample opportunity to reflect upon the information, thus further building rapport and engaging Louis in the assessment process. As the session progresses into a discussion of the results from the SII, Jim shares with Louis that he selected the instrument with consideration of Louis’s goals and culture, but that Louis should stop him and correct him if at any time he feels like there needs to be clarification or cultural consideration of the information being shared. Jim is also careful to remind Louis of the information in the informed consent process.

Understanding that one instrument is not all that can be used to assess Louis’s interests and help him move forward in his career development, Jim knows that it is important to ground the results within the context of Louis’s life. As Jim and Louis discuss the results, Jim is very careful to note Louis’s verbal and non-verbal reactions and he utilizes numerous open-ended questions and good reflective listening strategies to help both he and Louis gain a deeper understanding and utility of the SII results. This allows Jim to further build rapport and engage Louis in the process.

What if…?
Before concluding this article, we invite the reader to consider some what if’s. What if the client identified as Louise rather than Louis? Would or should client gender difference prompt Jim to take another course of action in the assessment process? If so, what might that be? If not, why not? What if Louis was representative of the ethnic majority rather than the ethnic minority? Should Jim consider other variables in assessing Louis’s career exploration and career decision making process? If so,
what are those? What if Louis brings along a family member to the second appointment? What, if any, issues might Jim address?

Questions such as the ones above prompt us as practitioners to think about variables that influence or could influence our process with clients. We can use these questions as mental exercises to promote more awareness about the assumptions we hold about gender, ethnicity, family involvement, etc. With awareness comes the possibility of creating new ways of thinking and practicing our craft.

Conclusion
In this chapter we have addressed, through an ethics lens, the difference between testing and assessment. In addition, we have used a case study to illustrate best practice and highlight key parts of the NCDA ethics code that speak to integrative assessment. As professionals, we challenged and encouraged to shoot for the ethical ceiling. Therefore, when faced with a test and tell scenario, we as career professionals can choose to better serve the client and honor the ethical principle of beneficence by taking an integrative assessment approach. This respects and esteems the whole individual, her or his uniqueness, and speaks to the ethical ideal of best practice.

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Interest Inventory with racial and ethnic groups in the United States.


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Chapter 15

ADDRESSING the CONNECTION between CAREER and MENTAL HEALTH CONCERNS: The Utilization of Career Assessments by Varunee Faii Sangganjanavanich and Jessica Headley

Abstract
Career issues influence, and are influenced by, an individual’s mental health. In recognition of this connection, scholars and practitioners within the field of career counseling have called for a more holistic approach to career services—an approach that promotes client wellness by addressing career and mental health issues in tandem. The current literature focusing on career assessment, an integral aspect of effective career counseling, is lacking practical suggestions and strategies for career practitioners who often have less to no training in working with mental health issues. Focusing on various phases of the assessment process—to include the intake phase, assessment selection and administration, and assessment interpretation—the authors highlight the complex, dynamic relationship between career and mental health issues in hopes of furthering a much needed dialogue about holistic career services.

Career is an integral part of an individual’s life. Many people in the United States spend a significant portion of their waking hours engaged in the role of worker within their homes (e.g., parent, caregiver) and/or the broader community (e.g., company employee, volunteer). While some individuals experience satisfaction in their role as a worker, others may experience distress as a result of career-related concerns (e.g., identification of career path, job loss, and poor working conditions). These concerns can be further compounded by various life stressors (e.g., relational conflict, loss, and medical issues) which adversely impact an individual’s mental health.

It is estimated that one in four adults in the U.S. suffer from a diagnosable mental disorder (Kessler, Chiu, Demler, & Walters, 2005), with nearly 1 in 17 individuals living with a serious mental illness (National
Alliance of Mental Illness [NAMI], 2013). Given these rates, it is unsurprising that the U.S. Department of Health and Human Services (2014) reported that across all diseases, the burden of mental illness is among the highest in the nation. Individuals struggling with mental illness are at risk for various issues such as homelessness, incarceration, school failure, family discord, chronic disease and medical conditions, risk behaviors such as alcohol and substance abuse, violence, and suicide (NAMI, 2013; U.S. Department of Health and Human Services, 2014). Within the workplace—a setting that reflects the broader culture’s response to mental illness—Russinova, Griffin, Bloch, and Wewiorski (2011) found that individuals struggling with mental illness experienced a wide range of psychiatric prejudice and discrimination related to work performance domains (e.g., hiring, advancement, firing, and social exclusion at the workplace), which in turn contributed to psychosocial and economic issues such as decreased performance, financial loss, and feelings of isolation. These findings emphasize the reciprocal nature of mental health issues and career concerns—a connection that is well supported by the empirical literature (e.g., Hinkelman & Luzzo, 2007; Saunders, Peterson, Sampson, & Reardon, 2000; Tsai, Chaichanasakul, Zhao, Flores, & Lopez, 2014).

While career practitioners are skilled at working with individuals to promote their career development, they may often have less to no training to treat and diagnose mental health issues which can influence the effectiveness of their services (Lenz, Peterson, Reardon, & Saunders, 2010). In order to promote quality care, career and mental health concerns should be addressed in tandem during each aspect of the service delivery process. Saunders and colleagues (2000) noted that through the use of initial screening questions (e.g., decision-making difficulties) in career counseling, individual’s mental health concerns (e.g., depression and anxiety) could potentially be identified. Thus, it is important that career practitioners, who may not have direct training in clinical mental health, are able to identify client’s underlying mental health concerns early on in the counseling process as this could benefit the effectiveness of career development services (Walker & Peterson, 2012).

With a specific focus on assessment practices, the aim of this article is to provide practical considerations and strategies for career practitioners to address the connection between career development and mental health in their work with clients. Using the authors’ clinical experience in mental health counseling and career development as well as relevant literature, considerations for each phase of the assessment process—to include the initial meeting, selection, administration, and interpretation (see Table 1)—are discussed. The authors provide case scenarios to demonstrate
how these practical considerations can be translated into practice.

**Initial Phase of Assessment**

During the initial meeting with a client, career practitioners inquire about her or his presenting issues through the use of informal (e.g., interview) and formal (e.g., screening questionnaires) assessments. While tending to verbal and nonverbal behaviors, it is important that career practitioners recognize common signs and/or symptoms of mental health concerns displayed by their clients. For example, a client with clinical depression may seem quiet (not shy); express a lack of interest and/or pleasure in engaging in life roles and activities; and share negative views about self, others, and the outside world (American Psychiatric Association [APA], 2013). Take into consideration the following scenario:

James seeks career services to assist him with finding new employment. He recently lost his long time employment and experienced a divorce. During the initial meeting, a career practitioner noticed that James seemed tired, was less verbal, avoided eye contact, and appeared withdrawn at times. When asked about his recent loss of employment, James first became teary and subsequently had an emotional outburst. James mentioned, “I am completely worthless and nobody wants me to work for them. I don’t even know what I want to do anymore. I have no interest in anything. I am such a loser!”

In this case, it is clear that James is unable to fully engage in the process of seeking new employment at this time (or, in other life roles and activities) without acknowledging his feelings of worthless and hopelessness—two hallmark symptoms of depression (APA, 2013). In light of this need, it is incumbent upon the career practitioner to explore with James the ways in which his feelings relate to his career (and personal) development.

In addition to considering mental health concerns when conceptualizing ways to work with clients, it is important for career practitioners to determine the degree to which formal assessments utilized during this phase are well-suited with the client’s presenting situation. Although there is no established study examining the relationship between undifferentiated or flat profiles and depression, Campbell and Hansen (1981) suggested that individuals with undifferentiated profiles might experience confusion, hopelessness, apathy, and desperation—symptoms of clinical depression (APA, 2013). According to his theory of vocational choice, Holland (1997) suggested that practitioners use the assessment interpretation process to clarify one’s interest when individuals present with lack of differentiation in their interest. For example, James appears to present with a lack of career interest. Although exploring his interest could be
helpful, it is important for practitioners to note that he seems to fit the criteria for clinical depression. Therefore, administering the Strong Interest Inventory may not be helpful as his results may indicate a flat profile—that is, the majority of his answers are scored in an indifferent domain—which may lead to an inaccurate reflection on his interest. Implications of the assessment results can be detrimental to a client’s career development and trajectory as well as mental state.

The aforementioned information suggests that general knowledge of mental health (e.g., signs, symptoms, progression) can be useful for career practitioners. Some mental health conditions are more recognizable than others (e.g., clinical disorders vs. personality disorders). In some cases when there is uncertainty about the client’s clinical presentation, career practitioners may consider consulting mental health professionals who could provide additional information to assist them. Addressing clients’ mental health and career development needs through interdisciplinary teamwork promotes the holistic approach that is strongly encouraged in the career development literature (Lenz et al., 2010).

Relatedly, if the client displays signs or symptoms of mental health concerns, it is important for career practitioners to understand the impacts of one’s mental health concerns to one’s career development. It is also essential that career practitioners understand whether a client’s mental health conditions result in career concerns or vice versa. For example, a client experiences symptoms of depression (e.g., sadness, hopelessness, irritability; APA, 2013) following the loss of employment, whereas another client begins to experience symptoms characteristic of Obsessive and Compulsive Disorder (e.g., excessive double-checking, thinking that everything must be just right; APA, 2013) since the start of new responsibilities at work. Gathering a thorough history regarding these issues may assist career practitioners in co-creating a more comprehensive picture of how mental health and career concerns are interrelated and inseparable. The information regarding the signs or symptoms and the impacts of mental health concerns can be helpful for both clients and practitioners in the assessment selection process.

**Assessment Selection and Administration**

A variety of career assessments including quantitative and qualitative assessments are readily available for career practitioners. While some practitioners may opt to use the career assessments with which they are familiar without considering the presenting issues of each client, Herr (2002) cautioned against this practice. Career practitioners should critically select career assessments that are tailored to the client’s unique needs and backgrounds; thus highlighting the need to address both career and mental health concerns when providing career services. The im-
portant linkage between mental health and career development is also emphasized in the dominant classification system of mental disorders that guides clinical practice, the Diagnostic and Statistical Manual of Mental Disorders, which is now in its fifth addition (DSM-5; APA, 2013). In the DSM-5 definition of a mental disorder, it is noted that “mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities” (p. 20). The inclusion of this language conveys that mental disorders impact various aspects of one’s work performance and satisfaction.

In the U.S., anxiety disorders are the most prevalent mental health concern. Approximately half of the U.S. population reported experiencing a diagnosable form of anxiety disorders at some point in their life (Kessler et al., 2005). Anxiety disorders are characterized by the belief that there is a real or perceived threat in the imminent future (which results in the emotional response, fear) and the anticipation of that threat (which results in anxiety and behavioral responses such as a panic attack) (APA, 2013). In the assessment context, the excessive concern or worry that a client may experience may be linked with coping strategies (e.g., avoidance) that hinder the gathering of information that may be useful in the assessment process. Therefore, special considerations should be made regarding the selection and administration of career assessments.

In order to minimize adverse client reactions that stem from anxiety, career practitioners select assessments with clear instructions that are self-administered, structured, and have no question that suggest a right or wrong answer. Self-administered and/or self-reported career assessments offer clients an opportunity to provide their responses at their own pace in a comfortable setting of their choosing, without experiencing pressure to complete their responses within a specified time frame (e.g., by the end of the meeting/session) or distractions in the assessment setting that may provoke their symptoms (e.g., unidentifiable sounds). The structured nature of an assessment can also help reduce anxiety because the format provides a framework for understanding, helping clients anticipate or expect how to complete and/or understand the preliminary results of an assessment. Lastly, utilizing assessments that do not suggest a right or wrong answer (e.g., true or false) or a dichotomous value judgment (e.g., strongly like, strongly dislike), such as assessments that contain Likert scales (e.g., a five point scale from strongly disagree to strongly agree, with a neutral option) may help reduce anxiety that is associated with the need to respond in a socially desirable way. In light of these suggestions, consider the following scenario:

Madeline is a college senior majoring in business administration. She has sought career counseling on and off since her junior year. She re-
ported experiencing career indecision and having a difficult time choosing the right career. She noted, based on her career preparation course requirements, she had taken multiple career assessments which focused mainly on her career interest. She, however, commented that completing those assessments were difficult for her as she felt that she was pressured to select the right career and it took her a long time (e.g., three and a half hours for the Self Directed Search) to complete each assessment when compared to her peers. She also said, “It was embarrassing when people were walking out of the room and I was the only one left. It has always been like this. As I was watching people walking out, I felt increasingly nervous. I felt a lot of pressure to just get it done and answer whatever so I could get it over with. I kept thinking I just wanted the process to be over. My palms were sweating and my hands were shaking. At some point, when the counselor looked at me and asked how I was doing, I really felt like I had a chest pain and couldn’t breathe. When I got those results back, I don’t even think they mattered to me because I had not paid attention to the test … I was so distracted.”

In this scenario, it is clear that Madeline experiences mild to moderate anxiety. There are multiple ways that career practitioners could approach this situation. Career practitioners may offer a computerized or paper-pencil career assessment that the client can complete in her own time where there is less to no distraction from others, she feels comfortable in the environment (e.g., at home), and nobody observes her risking feeling like she is being judged or monitored. Career practitioners may select an assessment that is not too lengthy and does not take too long to complete. The longer individuals with anxiety are exposed to an anxiety-provoking situation in an uncontrollable environment or without appropriate coping strategies, the more likely they will continue to experience a degree of stress and anxiety which can cause distress (Foa & Kozak, 1985, 1986). If there are multiple career assessments that career practitioners would offer, they may consider asking the client to complete one assessment at a time so that it would not overwhelm her (e.g., feeling like she needs to get them done and unable to focus).

**Assessment Interpretation**

While many self-administered career assessments including computer-assisted career guidance systems (CACGs) provide the immediate results to clients after completing the assessments, others require practitioners to review and describe the results to clients. Clients with mental health concerns may present challenges during the assessment interpretation process. For example, clients with Dependent Personality Disorder, who often present with behaviors associated with their pervasive and excessive need to be cared for by others (APA, 2013), may repeatedly
ask the career practitioner what to do with the assessment results and/or insist that the practitioner choose a career for them. Understanding that personality disorders are inflexible and stable over time, and that those with Dependent Personality Disorders will go to extreme lengths for nurturance and support, career practitioners should understand how their responses to such behaviors during the assessment interpretation process may influence a client’s career trajectory in ways that are incongruent with their internal career motivations and foster a dependent working relationship.

Clients with Autism Spectrum Disorders (ASD) may also present challenges to career practitioners in the assessment interpretation process. ASD refers to a condition in which individuals severely struggle in their communications and interactions with others and tend to engage in patterns of behavior, interests, or activities that are restricted and repetitive in nature (APA, 2013). Depending on the level of functioning of individuals, career practitioners should consider using different methods of interpretation (e.g., writing narrative, conversation, visual presentation) in order to effectively engage the clients in the assessment interpretation process. Consider the following scenario:

Craig is a high school senior who has a high GPA. He was encouraged by his parents to schedule a meeting with his school counselor to set career goals for after graduation. In the initial session, he appeared preoccupied with a particular object, an antique radio, on the office table and rarely made eye contact. He started the session by talking about his passion with radio and that, at one point in his childhood, he attempted to build a radio communication similar to ones used by the U.S. military. When being asked about his reason for seeking service, he said, “I came here because I have to. Can I just take the career assessment that I was asked to do so that I can go home?” Followed the school counselor’s recommendation, he completed the Strong Interest Inventory in order to explore his career options, although he said, “I know exactly what I want to do.” During the assessment interpretation session, he told the career practitioner that, “I already knew this information. I already read the results and you don’t have to repeat them to me. This is really boring to me. You see, number three occupation, electrical engineering, that is what I want to do. Is there anything else I need to know about my top ten occupations?”

In this circumstance, it first appears that Craig is a difficult client who is not fully engaged (e.g., rarely makes eye contact, playing with other objects) and shows signs of resistance (e.g., talking about irrelevant subjects, noting that the session is boring) in the career counseling process. However, when taking his mental health issue into account of his behaviors, career practitioners understand that Craig demonstrates clinical
symptoms of Asperger Syndrome as noted by a lack of social skills (e.g., difficulty engaging in reciprocal dialogues) and his restricted, repetitive behaviors and activities (e.g., preoccupation with unusual objects and intense fixation or focus on particular interests). The goal of this assessment interpretation session is to introduce other related occupations that are relevant to his interest which may lead to additional career options. Therefore, career practitioners may implement strategies that are better suited with his mental health condition including first having a conversation that expands on his existing interest and later introducing related occupations to him, keeping conversation to the point and structured, assigning the client to conduct his own research on other related occupations in order to discuss them in the next session, or using visual presentations for the top 10 occupations to increase more interactions.

**Conclusion**

In order to provide effective services, career practitioners working across a variety of settings (e.g., career service agencies, counseling centers, and schools) need to address the connection between clients’ mental health concerns and their career development throughout the assessment process. By “connecting the dots,” so to speak, career practitioners will be better suited to tailor their services to the unique needs of their clients and determine whether there is a need to collaborate with other mental health care professionals to promote clients’ overall well-being. This article outlined a few practical considerations and strategies for making these connections with the intention of beginning an important dialogue that needs to continue. With increased acknowledgement and action, we can begin to address the many burdens plaguing our clients, families, and communities that result from mental health and career concerns.

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ASSESSING APTITUDES and YOU SCIENCE: Enhancing Career Development for Learners of All Ages
by Rich Feller, Philip Hardin, Toby Cunningham, Judy Whichard, and Jenn Long

Questioning the nature of human capacity has intrigued philosophers, scientists and physicians for centuries. As early as fourth century BCE, Greek physicians and philosophers postulated that the human brain was the basis of cognition. Today, it is widely accepted that the brain inspires our very existence—our general intelligence, motivation, emotions, performance, experiences, and knowledge are dependent on our cognitive functioning. And, the more we know about ourselves and our unique natural talents, the more we are able to add value to our life roles.

How does one discover, and hence capitalize on, their unique gifts and talents? Assessments abound and are used with mounting confidence to encourage individual success and life design. Measuring individual differences via general intelligence assessments or standardized achievement tests, for decades the sine qua non of determining potential, is now only a portion of the testing and assessment done. Assessing individuals’ aptitudes, interests and skills, and sharing their results enhances their likelihood of success. Consequently, as use of assessments grow, it is essential that career development specialists discern the efficacy of available tools.

Thinking about Aptitudes

Aptitude assessment has been missing from career development conversations in recent years despite the evidence that aptitude assessments are dependable predictors of career performance (Hunter & Hunter, 1984; Green & Macqueen, 2008). The premise of this paper is that aptitude assessments should be central to career planning for two primary reasons. First, there are significant differences in aptitude requirements across jobs (Ghiselli, 1966; Murphy, 1996). Thus, identifying careers for which the aptitudes required match a person’s aptitudes is likely to increase the chances for long-term satisfaction and success on the job (Dawis, 1994; Dawis & Lofquist, 1984). Second, aptitude profiles generally remain stable over time (Bizot & Goldman, 1993; Dawis, Goldman, & Sung, 1992; Goldman, Bizot, & Rischall, 1994). Hence, an individual’s apti-
tude testing results can be used for career planning both now and in the future (Hunter, 1986; Hunter & Schmidt, 2004).

By presenting research on assessments in general and aptitudes specifically, this article builds support for the re-integration of aptitudes as an essential part of the holistic picture of self and talent development within the 21st century global, digital landscape. Beginning with a brief overview of the interrelations among cognitive attributes on which most tests are built, we next offer definitions of testing and assessment constructs, and touch on controversies surrounding standardized testing/assessments. Guidelines to help practitioners evaluate the quality of assessment instruments are given along with research findings on the predictive ability of various assessments, followed by a discussion of future research needs and suggestions for appropriate use of aptitude assessments by career counseling professionals. The article provides an overview of YouScience (www.youscience.com), a new online aptitude assessment that uses validated science and performance tests to find the intersection between natural aptitudes and interests, specifically focusing on helping learners to identify careers and post-secondary majors that hold greatest potential. A short case study is provided to illustrate a finding from one user’s assessment.

Definitions of Test Constructs

There are several constructs (individual assets) measured by assessments that are used to identify an individual’s potential to succeed in career and educational pursuits. For clarity, this article uses the following definitions. Although related, aptitudes, abilities, skills and interests are discrete constructs and should not be used interchangeably.

Aptitudes. Aptitudes are innate abilities, the result of inheritance and early development (Ryan Krane & Tirre, 2005). Aptitudes “broadly defined, [are] the potential to learn the skills required for a specific type of performance” (YouScience Assessment Battery, 2014, p. 1). Research shows that after stabilizing around age fourteen, aptitudes remain steady throughout life (Johnson O’Connor Research Foundation, 2012). In the psychological literature, aptitude refers to any attribute used to predict how likely a person is to succeed in certain situations, such as work environments. Generally, the career counseling field recognizes aptitude as the “…likelihood of learning or acquiring the skills required by the occupation” (Metz & Jones, 2013, p.452). “[A]ptitude tests provide quantitative estimates of a person’s potential for learning the knowledge and skills needed for school, training, or career success” (Ryan Krane & Tirre, 2005, p. 331).
Occupational aptitude assessments are often used to measure an individual’s potential to readily acquire the skills required to perform competently in different occupations. The philosophy undergirding occupational aptitude assessments is that individuals can make more thoughtful, informed decisions about educational and career choices when they know more about what comes easily to them, and what will require more effort (YouScience Assessment Battery, 2014).

**Ability.** Ability is the physical or mental capacity to complete a specific task. Abilities can be learned or innate, have a neurological basis and are fairly constant traits (Metz & Jones, 2013). Typically, ability assessments require the test taker to complete timed tasks and measure the relative ease with which an individual can perform the task. Results indicate current strengths and weaknesses in specific abilities, as well as the potential of developing the abilities in the future (Metz & Jones, 2013; Seligman, 1994).

**Skills.** Skills exemplify proficiency or dexterity acquired through practice and repetition. Skills can be domain-general (e.g., interpersonal communication), or domain-specific (e.g., analyzing blueprints). Because skills are dependent chiefly on training, they are more easily acquired than abilities (Betz, Fitzgerald, & Hill, 1989).

**Interests.** Constellations of likes and dislikes interests are manifested through the activities people pursue, objects they value, their topics of reading and conversation, and their patterns of behavior. Despite the sophisticated technology of testing, self-report is the best source of information on interests (Seligman, 1994).

**Structure of Cognitive Abilities**

With the increasing use of assessments for exploring educational and occupational success, understanding the basic mechanics of cognition is critical for learners and career professionals. Most reputable assessments are predicated on a hierarchical, three level model (Carroll, 1993) that has proven to accurately determine the interrelationship of cognitive abilities as well as how they influence individual performance. By synthesizing several factor-analytic studies correlating individual performance across multiple measures (i.e., psychological tests, school grades, and performance competence ratings), Carroll (1997) concluded that cognition comprises three strata/layers. The three strata/levels define specific, broad, and general cognitive abilities (aptitudes) and distinguish how the three levels of abilities interact to provide measures of individual performance. (Figure 1 depicts an adaptation of Carroll’s three-stratum/level model).
LEVEL I
SPECIFIC ABILITIES
(Gf-Fluid Intelligence)
General reasoning; Piagetian reasoning; Speed of reasoning
(Gc-Crystalized Intelligence)
Language development; Comprehension; Oral fluency; Writing ability
(Gy-General Memory & Learning)
Memory span; Associative memory; Visual memory
(Gv-Broad Visual Perception)
Visualization; Spatial relations; Perceptual speed
(Gu-Broad Auditory Perception)
Hearing & speech threshold factors; Musical discrimination
(Gr-Broad Retrieval Capacity)
Originality/creativity; Word Fluency; Figural fluency
(Gs-Broad Cognitive Speediness)
Rate of test taking; Numerical facility
(Gt-Processing Speed/Decision Speed)
Simple reaction time; Mental comparison

LEVEL II
BROAD ABILITIES
Gf-Fluid Intelligence
Gc-Crystalized Intelligence
Gy-General Memory & Learning
Gv-Broad Visual Perception
Gu-Broad Auditory Perception
Gr-Broad Retrieval Capacity
Gs-Broad Cognitive Speed
Gt-Processing Speed

LEVEL III
GENERAL INTELLIGENCE
(g)

Figure 1. Adapted from Carroll’s (1997) three-stratum/level model depicting each of the cognitive abilities in Levels I, II and III. General intelligence (Level III) is the foundation of all cognition; Level II lists the discrete broad abilities; Level I illustrates the attributes associated with the Level II cognitive abilities.
Adapted from Carroll’s three-stratum/level model depicting each of the cognitive abilities in Levels I, II and III. General intelligence (Level III) is the foundation of all cognition; Level II lists the discrete broad abilities; Level I illustrates the attributes associated with the Level II cognitive abilities. Level I includes those performance abilities that are highly specific and relatively narrow in scope, such as reading, decoding and memory span, and are subsets of Level II abilities. Level II is comprised of eight broader abilities, including factors of intelligence such as verbal facility, spatial (broad visual perception), reasoning, general memory, and broad auditory perception. Level III, also known as g, IQ or intelligence, is the foundation of all mental/cognitive tasks and is active in all cognition (Gottfredson, 2003). In practice, a test that requires the test taker to perform a geometry problem (Level I) measures crystallized intelligence (Gc), a Level II ability, and is an indicator of overall intelligence (IQ or g), the Level III cognitive function. By identifying the interrelationships of all cognitive functions and how they influence and determine individual achievement, Carroll’s work supports measuring aptitudes to inform career and life decisions.

Additionally, understanding cognitive interrelationships is pivotal to developing valid measurements of the interrelated, yet discrete, aspects of cognition. IQ (g) assessments have the sole purpose of gauging overall intelligence; hence, test questions are designed to discern general intelligence (Level III). Aptitude assessments, on the other hand, target Level II abilities; thus, questions/tasks/problems are structured to ascertain those distinct cognitive aspects defined as aptitudes. In short, although cognitive functions are interrelated, by using research-based, valid assessments, it is possible to differentiate among the cognitive levels, thus providing basic intelligence information, as well as specific cognitive functions that indicate acquired and unrealized potential (aptitudes).

Discussions Surrounding Assessments
Types of assessments and how they are used have incited ongoing controversy. Advocates claim that standardized assessments are the only universal, unbiased measure of student and school performance. Critics say that the tests fail to assess students fairly, particularly disadvantaged students, and cannot take the true measure of a school’s quality (Frontline Report, n.d.). Table 1 [see APPENDIX] highlights the major controversial points and the reasoning of testing/assessment proponents and opponents.

Career Counseling Issues and the Use of Aptitude Tests
In addition to the more general debates around testing/assessment (Table 1), career counselors confront a myriad of judgment calls when using tests as the basis for advising. As an example, counselors may face
the dilemma of what to do with below average achievement and aptitude scores. Prevailing wisdom suggests that lower general ability and aptitude scores do not necessarily limit future academic achievement or career choices. However, lower scores usually do mean that these individuals will likely expend considerable effort to achieve success (Gottfredson, 2003). Career counselors, equipped with test and assessment results, are frequently in the unique position of balancing individual hope and desire with the reality of individual potential. Walking this fine line has become more commonplace as the need to help clients obtain a holistic and realistic picture of their natural abilities to best identify both educational and career FIT has grown. Regardless of age, learners aware of their interests and natural abilities are more likely to “manage a complex life” (Moon, 2014, p. 1) and “find their FIT” (Feller, 2014, p. 5-6).

The Best FIT Model in Figure 2 illustrates the relationship among self-awareness, interests, and aptitudes. This model can help learners focus on spending time pursuing areas of highest aptitude and interest, and move away from areas of low aptitude and interests.

**Considering Gender, Ethnicity and Disability Factors in Aptitude Testing.**
Counselors and psychologists have worked diligently to ensure that cognitive tests are fair and accurate. As testament to their successful pursuit, multiple national panels of diverse experts (Gottfredson, 1997; Hartigan & Wigdor, 1988; Neisser et al., 1996; Wigdor & Garner, 1982) have reached the conclusion: “Mental tests developed by major professional companies do indeed measure the cognitive abilities of native-born, English-speaking Americans, without cultural bias, regardless of race, ethnicity, gender, or social class. Further, cognitive tests provide useful objective information about people’s capabilities and subsequently about the sorts of training, education, and occupations for which they are competitive” (Gottfredson, 2003, p.4).
Figure 2: Best FIT Model (Feller, 2014) illustrating the relationship among self-awareness, interests, and aptitudes.
As diversity within American society burgeons, career counselors need to be sensitive to the ways in which gender, ethnicity, and disability factors may influence assessment results. Multiple studies have examined the role of gender, ethnicity and disability factors in aptitude testing and the resultant research gives considerable insight and the appropriate use of aptitude and other testing (Ryan-Krane & Tirre, 2005). Career counselors need to be aware of inherent gender and ethnic variances when interpreting and applying test results. “For example, on commonly used intelligence tests, boys and men tend to perform better than girls and women on tests of spatial ability, girls and women tend to perform slightly better on verbal ability, and boys and men perform better in quantitative ability” (Metz & Jones, 2013, p. 456). If this factor was unknown, career counselors might delimit male career choices based on assessment outcomes that do not reflect unrealized potential.

Regarding gender, evidence suggests that there are unequal performances between males and females. Ryan-Kranc and Tirre (2005) found that males typically outperformed females in visual-spatial tasks, such as mental rotation and spatiotemporal tasks (tracking objects thru space). Females tended to score significantly higher than males on tests of some verbal abilities including synonym generation and verbal fluency (Neisser et al., 1996). These performance differences are the result of both biological and social factors working in tandem (Gottfredson, 2003; Ryan-Krane & Tirre, 2005; Seligman, 1994).

The majority of the research in ethnic group differences has focused on general intelligence (g). Most studies concluded that scores were equally predictive of educational and occupational outcomes across ethnic groups. Moreover, despite disparity in ethnic group scores, the test results were valid indicators of individual potential and future academic and career success (Gottfredson, 2003; Ryan-Krane & Tirre, 2005). Studies also noted the importance of the influences of non-controllable external factors such as socioeconomic disadvantages, poor-quality educational background, poor nutrition and prenatal care, and/or lack of intellectual and social resources. Because higher levels of poverty exist within certain ethnic groups, it remains very likely that poorer test performance by these groups will continue (Ryan-Krane & Tirre, 2005) despite bias-free, fair-testing assessment practices.

Recognizing the importance of identifying natural aptitudes is critical to holistic career exploration. Insights or language that promote or enhance self-awareness, with respect for diversity issues within assessment, can elevate the science of aptitudes within career development. In alignment with the studies cited above, YouScience has developed a significantly valid aptitude assessment with measurement equivalency for diverse
population groups. “Utilizing the BAB [Ball Abilities Battery] for its source items and construct” (YouScience Assessment Battery, p.24), YouScience reports that “multi-sample analysis indicates that the hierarchical structural model applies equally well across gender and racial groups, which indicates (1) the structural model is robust, and (2) aptitude test performance can be given the same interpretation regardless of gender or race” (p. 29).

Validity of Psychometric Assessments
The validity of an assessment is central to its selection as an appropriate measure of the attributes under study and validity information should be readily accessible from the assessment developers.

Table 2 [see APPENDIX] summarizes the most salient types of validity for evaluating the efficacy of an assessment (Isaac & Michael, 1990; Seligman, 1994). In short, it is important to select assessments based on their validity coefficients in the following three validity areas (Schmidt & Hunter, 1998):

- How well the traits to be measured relate to job success (Criterion-related Validity).
- How well the test assesses specific traits (Construct Validity).
- How well the test assesses the specific demands of the job (Content Validity).

Research on the Efficacy of Cognitive and Aptitude Assessments
General intelligence (g) and aptitude research. Using valid and reliable cognitive assessments are particularly important in career counseling as results are used to make important life decisions. Subsequently, research illustrating the efficacy of cognitive testing is vital to choosing appropriate instruments.

Citing meta-analytic research, Gottfredson (2003) affirmed that assessments of general intelligence predict performance to some degree in all jobs, and best in the most cognitively complex (Metz & Jones, 2013). A study conducted by John Hunter (1986) found similar results. Hunter reviewed several studies that explored the predictive validity of general cognitive ability (g) tests in job performance, and concluded that general cognitive ability predicts work performance with high validity (r = .80). Although he concluded that aptitudes were not as strong as general intelligence in predicting performance, they were relatively significant predictors of performance success. Another study (Bertua, Anderson, & Salgado, 2005) on cognitive ability tests, including numerical, verbal and diagrammatic reasoning tests (defined as aptitudes) concluded that cognitive ability has the greatest validity of any known psychological construct, correlating with educational, economic and social outcomes more strongly and more often than any other measurable factor.
The results of an extensive meta-analysis (Bertua, Anderson, & Salgado, 2005) (N=13,262) conducted in the U.K. on the validity of tests of general intelligence (g) and specific cognitive aptitudes (verbal, numerical, perceptual, and spatial) in predicting job performance and training success indicated that g and aptitude (specific ability) tests are valid predictors of both job performance and training success. Validity coefficients ranged between .5-.6.

Predictive potential of aptitude assessments. There has been general acceptance that general intelligence tests are the single best predictors of training and job success (Green & Macqueen, 2008; Sackett, Borneman & Connelly, 2008). Fortunately, there has been growing focus on studying the predictive validity of tests and other assessment tools that have the dual purposes of measuring a client’s current performance on specific tasks (abilities) and predicting the types of occupations and jobs in which s/he may succeed in the future (aptitudes).

Like intelligence tests, aptitude assessments measure overall performance across a broad range of mental capabilities by including items that measure more specialized abilities—such as verbal and numerical skills—to predict scholastic performance. Research in the use of aptitude testing with K-12 students found that aptitude assessments have the following qualities:

- are excellent predictors of future scholastic achievement,
- allow comparisons among student performances,
- provide a profile of strengths and weaknesses,
- assess differences among individuals,
- reveal hidden talents/potential in some students, thus honing their educational choices and opportunities, and
- help parents develop realistic expectations for their child’s school performance and help students understand their inherent strengths and weaknesses (Macklem, 1990).

Within career counseling, it is generally believed that aptitude assessments provide important information for selecting potential careers and further education, yet aptitudes have been absent from conversations within career counseling, training, practice and research for quite some time. Gottfredson (2003) summarizes best the importance of pursuing research in cognitive assessment, abilities and aptitudes; “…research on human cognitive abilities and jobs’ aptitude demands in the U.S. economy reveals that the two domains are structured in essentially the same way” (p.12). Hence, pursuing quantitative aptitude research is important for both individual career success and U.S. economic health as prepared workers would be more readily available. In agreement with Gottfredson, uncovering FIT through assessing aptitudes in conjunction
with interests can help individuals better align exploration with job market needs. “Within an economy unable to create enough jobs to match ambitions, employees struggle to achieve their best FIT. Such economic pressures often lead to early foreclosure on potentially less fulfilling career choices. Connecting learners’ self-concept to a meaningful life of purpose early is important”, allowing learners to proactively manage their unique career changes and transitions (Feller, 2014, p. 6).

Discussion

Aptitude assessments can be used successfully to help individuals align their cognitive strengths with occupational and educational goals, and to predict areas of potential that could be tapped to maximize occupational success and purpose. Moreover, research does show that aptitude and other ability assessments have been used to successfully forecast future experiences and jobs in which an individual would likely be successful and find meaning. Because aptitudes remain virtually stable over time, aptitude assessments are particularly efficacious as predictors of short-term and long-term career success.

As pointed out in the literature, there are relevant data extrapolated from the general intelligence validity research indicating that aptitude assessments provide a measure of valid predictability; however, more directly related studies are warranted (Seligman, 1994). Over the last decade, little attention has been given to aptitudes and supporting research.

YouScience’s recent significant commitments to clarify and research the impact of aptitudes on career development are helping practitioners appropriately use aptitude information as well as bridge the research gap. Despite the paucity of research about the efficacy of aptitude assessments, career counselors can promote the value of aptitude testing by ensuring that the aptitude test meets certain guidelines (Lowman, 1991).

Validity: Is there convincing evidence for the construct and predictive ability of the assessment?

Reliability: Does the test measure the aptitude consistently?

Norms: How recent, extensive, and age-appropriate are the normative data for the measure?

Clarity of measurement: Is it clear which aptitude constructs or subconstructs are being measured by the test?

Occupation applications: Are the proposed occupational applications clear and compelling?

Comprehensiveness: Does the assessment measure the construct comprehensively?

Usefulness of Report: Does the resultant test report include an aptitude profile? Does the report integrate ability and interest data and subsequently use these data to make career recommendations? Does it
Aptitudes are powerful allies in assessing career FIT and the appropriate-ness of individual choices across multiple life roles, particularly when combined with interests (Schmidt & Hunter, 2004) and skill assessments. Making decisions based on aptitudes, abilities and skills are strong gauges of career and scholastic success (Betz, Fitzgerald, & Hill, 1989; Seligman, 1994). By assessing aptitudes and interests, and connecting these results to education and career options, YouScience provides a pathway grounded in performance-based evidence that supports individuals in making informed and realistic career decisions. Furthermore, by adhering to Lowman’s (1991) seven aptitude test guidelines, Table 3 YouScience Assessment Outcomes [see APPENDIX] can assist career counselors and specialists in confidently advising learners. In addition, Ryan-Krane & Tirre (2005) suggest five ways that aptitudes can be further utilized by:
1. Exploring careers that match individuals’ aptitudes;
2. Focusing individual options by identifying occupations compatible with their existing or readily acquired strengths;
3. Confirming a career choice, particularly when assessment results align with previously considered choices;
4. Sparking important discussions about internal motivation and probability of success;
5. Enhancing work performance for employed clients by revealing their currently untapped aptitudes.

To be sure, these are actions that can raise the levels of meticulousness and excellence around aptitude assessments, particularly when the assessments are based on robust research. As stated by Krane and Tirre (2005) “...reviving cognitive [and aptitude] assessment will enhance career counseling only if firmly and confidently grounded in fact” (p.349). Fortunately, Gottfredson (2003) has laid important groundwork to help shape ongoing aptitude research, “…what remains is how to resolve various technical and professional questions, such as which cognitive abilities to assess, how to assess them, what the most useful aptitude-based occupational classifications would be, and how to use cognitive assessments in a broader ‘reality-based exploration’ process intended to expand people’s career opportunities” (p.18). YouScience, through its research and technological sophistication, now delivers a comprehensive assessment tool in a readily accessible platform that supports aptitude assessment and application on a national scale; and that strongly aligns with Gottfredson’s (2003) recommendations.

New Strides in Aptitude Assessment: The YouScience Program
Although the YouScience Program is designed to meet the unique needs
of all learners and career development clients, YouScience Chief Officer, Philip Hardin, notes that youth are in particular need of self-knowledge, awareness of aptitudes, and career readiness to help them make thoughtful career and life decisions, as well as differentiate themselves within the workplace.

“We have an entire generation of students who have access to college’s incredible resources, but they are graduating ill-equipped for the marketplace and burdened by substantial debt. Students must possess the tools to set a true course and motivate themselves to more intentionally navigate their college experience. Whether they’re entering a four-year program, community or technical school, they need to be deliberate to ensure academic success and career readiness” (YouScience, 2014, p.1). YouScience addresses this challenge by providing an online multi-aptitude battery of tests designed specifically to measure an individual’s capacity to perform work samples that simulate the tasks required in a wide variety of educational and work settings. It includes subtests of Associative Memory, Sequential Reasoning, Visual Memory, Visual Comparison Speed, Idea Generation, Inductive Reasoning, Hand-Eye Coordination, Visual Memory, Numerical Computation, Numerical Reasoning, Spatial Visualization, Vocabulary, Work Approach, and Pattern Memory. Timeframe orientation, Interpersonal Style, and an Interest Profiler are included as personality and interest surveys, (YouScience, 2014). In two hours, students can find that nexus of their natural aptitudes (what they are naturally good at), interests (what they love to do) and opportunity (what the market needs them to do). Through a patent-pending technology, learners can discover, explore, and share career recommendations based on scientifically robust algorithms (McCloy & Putka, 2014). The case of Juan, a college sophomore, offers an illustration of the power of aptitudes and finding “best fit” for students.

The Case of Juan
Juan, an undeclared college sophomore, had been struggling for two years to select a major that, feels right for him, as he has become discouraged by many friends changing majors multiple times, transferring or quitting school. Eager to complete his college education and graduate in four years, Juan enthusiastically partnered with the YouScience team to discover his natural aptitudes and confirm potential college majors connected to realistic and engaging career options. Juan’s college debt and his parent’s limited higher education experience have created both a sense of urgency and stress related to declaring a major. With limited knowledge of career options, Juan was motivated to move forward knowing that his YouScience results would provide a written guide to help him discuss his strengths and recommendations for college majors. Gain-
ing insights about himself, relationships, education, and study habit and internship tips drove his two hour commitment to on-line testing. According to Juan, discovering natural gifts in Idea Generation, Inductive Reasoning and Spatial Visualization was like someone shone new light on my life… it explained why I had more ideas and hunches than others… and why I drew pictures to help me organize my notes and understand concepts better.” His Extravert-Specialist work style explained my comfort with myself in different settings and his Social-Enterprising-Artistic results allow him to honor his interests while respecting his limited inclination toward planning, mechanical things or moving forward with his STEM program from high school (which alleviated pressure that Juan was feeling about what he should major in). According to Juan, reviewing the terms that so closely resonate with him was “like looking in a mirror with a new vocabulary to explain how I was dressed.” Recommended careers and majors shaped by his unique best fit offered a new focus and sense of direction as he approached his academic advisor. Securing a major with strong interest that pulled on his natural aptitudes created a calm assurance as Juan took this next step in his career decision-making, and a sense of mastery driven by his internal motivation was evident. Graduating on time became a realistic and exciting plan, and Juan was “enthusiastic to move forward”.

Concluding Thoughts: Making Aptitudes Prominent in Career Development

Career development is important for all learners and particularly for young adults as they prepare to move through a lifetime of career transitions. In the June 2014 Harvard Business Review, Claudio Fernandez-Araoz asserted that “…potential now trumps brains, experience, and competencies,” making the case for the criticality of uncovering potential to add value as our best and most natural selves.

A call to use aptitudes in career development is increasingly heard from big picture thought leaders. Seligmen (2008) stated that we have forgotten about high talent just as Cowen (2013) suggested that “average is over”. Schmidt and Cohen (2013) and Hoffman, Casnocha, and Yeh, (2014) call for better managing talent in a digital and networked age by tapping into individual gifts and natural abilities.

Aptitudes can no longer be left out of career conversations about potential, success and FIT. Fortunately, awareness is growing among career counselors and specialists about the importance of holistic assessment and identifying hidden gems within individuals if they are to maximize education and occupational exploration. Currently, YouScience is at the forefront of coupling scientific aptitude measurement strategies with advances in client-friendly technology to assist, streamline and enhance
practice. Moreover, YouScience continues to research aptitude assessment pursuing many of the research implications cited throughout this article. In summary, YouScience and its current aptitude assessment program and ongoing research efforts offer the leadership necessary to successfully elevate the importance of assessing aptitudes for learners of all ages.

Advocates believe that testing all students on the extent to which they have achieved state or local content standards is the best way to ensure that all students are learning the same curricula. Further, standardized testing is the best way to measure school effectiveness. Supporters also believe that disadvantaged students can be better served by holding their schools accountable when they perform poorly on tests. Critics contend that tests can contain culturally biased content that may be unfamiliar to minorities and recent immigrants. Moreover, for students with learning disabilities or who process information differently, the nature of the test itself (e.g., multiple choice or short answer) may be unfair. Critics also state that tests do not adequately measure student and school performance, and that judging (and in some cases punishing) schools with low test scores results in even fewer resources for the students who need them most.

**Student achievement**
Advocates say that developing and administering tests that measure students’ knowledge against learning standards will ensure that all students have certain proficiencies and are not left behind or falsely promoted from grade to grade. Critics say that many tests created for national use may not include content emphasized at the state level, resulting in students being tested on material they have not been taught. Moreover, critics warn of **curriculum narrowing** saying that the heightened attention paid to standardized tests forces teachers to ignore content or subjects that do not appear on the tests.

**Uses of “high-stakes” tests**
Advocates say that tests are an important part of **raising the bar** on student performance. Attaching test results to grade promotion, graduation, and teacher evaluation, sends a strong message to students, teachers, school leaders, and parents that students must meet proficiency levels. Critics cite **test anxiety** resulting in lower scores that inaccurately reflect knowledge. Critics also contend that standardized tests must be coupled with other assessment tools, including classroom work, student portfolios, and teacher evaluations to accurately assess achievement.

**Validity of test scores** Advocates say that standardized tests are the most objective and accurate assessments of students’ knowledge and
skills. Because they create normative groups and specific criteria to which students are compared, tests created by high quality test makers can measure each student’s abilities with precision. Critics say that test making is far from a perfect science. Tests may contain errors, making results inconclusive. Furthermore, a test’s standard error of measurement may be large enough to cast doubt on the viability of test results in decision-making.

**Using tests to determine school funding**

Advocates say that schools should be rewarded financially for performing well on standardized tests, and that providing such incentives motivate school leaders and teachers to teach effectively and raise student performance. Critics say that financial rewards for schools in which students perform well are inappropriate. They argue that it is unfair to expect students at schools in impoverished areas to perform as well as those in wealthy areas. Withholding funding to schools in need will further stagnate performance levels.

**Validity**

Is there convincing evidence for the construct and predictive ability of the assessment? In utilizing the BAB for its source item and construct, and conducting a normalization study to confirm the content and construct correlations with the BAB, the YSAB shows convincing evidence for the construct and predictive validity of the assessment. An examination of the different tests across the different age groups revealed a substantial correspondence for results across age groups, and normally distributed score ranges on the individual tests in the YSAB. A confirmatory factory analysis for the subtest constructs was determined through the Sum of Squared Residuals analysis. The analysis presented a resulting root mean square residual of 0.92 between the two batteries.

**Reliability**

Does the test measure the aptitude consistently? Analysis presented an overall correlation of the assessments with $r=0.85$. This reliability result, in addition to the construct correlations between the YSAB and the BAB, showed the overall results of the YSAB to be sufficiently correlated to the original BAB source battery. The YSAB algorithms were updated based on the scoring distribution from the study population, by scaling raw scores to a percentile distribution scale reflecting the new data.

**Norms**

How recent, extensive, and age-appropriate are the normative data for the measure? The YSAB selected the BAB from The Ball Foundation and the Interest Short Form Profiler for interest measurement as its basis. YouScience conducted a study on the new platform, forms, and items
in the summer of 2012 to validate the equivalency, and ensure a lack of bias of the YSAB. In 2013, YouScience engaged the Human Resource Research Organization (HumRRO) to carry out a study that recruited and tested over 1,838 persons on YSAB and BAB, ranging from 16-24 years of age, with 597 males and 830 females across 5 different race/ethnicity constructs.

Clarity of Measurement
Is it clear which aptitude constructs or sub constructs are being measured by the test? The YSAB is an online multiple-ability battery of worksamples, combined with personality and interest surveys. In partnership with the Ball Foundation, drawn from measures devised by Johnson O’Connor, the YSAB is a collection of tests designed to measure an individual’s capacity to perform worksamples, which simulates the tasks required in a wide variety of educational and work settings. Two additional surveys, one for introvert/extrovert and an interest profiler are included. The YSAB clearly outlines and includes 14 subtests on individual aptitudes and 3 personality and interest surveys (not normed as aptitude assessments).

Occupation Applications
Are the proposed occupational applications clear and compelling? YSAB recognizes that occupations vary in the patterns of aptitudes that they require and that there is no such thing as a universal aptitude, therefore assessment results provide personalized occupation data linked to O*NET Online. The data collected enables YouScience to recommend professions (occupations) that are a close match for the test taker in terms of fitting their aptitudinal strengths, as well as their interest in performing that type of work. Additionally, economic and educational data is provided.

Comprehensiveness
Does the assessment measure the construct comprehensively? The YouScience profile was designed as a comprehensive career assessment for a broad target population—North American high school and college students seeking career guidance. In developing the YSAB, YouScience leveraged the existing validity and reliability of a known instrument, the Ball Foundation’s BAB. HumRRO carried out a study of the correlation of the overall battery performance, and individual worksample performance comprising YSAB to the source BAB, and to study the performance of YSAB for subgroups such as race, gender, age, and socio-economic status to determine bias or adverse impact, in order to comprehensively measure all test constructs.
Usefulness of Report
Does the resultant test report include an aptitude profile? Integrate ability and interest data? Include interpretive sections? Test takers are emailed their comprehensive results in 24 hours as well as additional online services and features. A printable detailed report is available and enables the test taker and their collaborators to assemble a profile of abilities and to utilize the profile in understanding the tasks and functions which the user can perform most easily, as well as accommodations for areas that are not as strong. The interest measure underlying the YSAB is the Interest Profiler Short Form (IPSF), developed by the National Center for O*NET Development.

References


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Rich Feller is Professor Emeritus of Counseling and Career Development and University Distinguished Teaching Scholar at Colorado State University, national and international speaker, and consultant within the field of career development. He earned the PhD at Colorado State University and the MEd and BS at Westfield State College in Massachusetts. Author of numerous publications, assessment tools and media products and programs (with help from many), he has served as President of the National Career Development Association and was the recipient of the NCDA Eminent Career Award in 2009. Contact him as follows: e-mail: rich.feller@colostate.edu.
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**APPENDIX**

**Table 1: Principal Issues Debated on the Use of Educational Testing.**

<table>
<thead>
<tr>
<th>Scene</th>
<th>Advocates</th>
<th>Opponents</th>
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<tbody>
<tr>
<td>Fairness, civil rights</td>
<td>Advocates believe that testing all students is the best way to ensure that all students are learning the same curriculum. Further, standardized testing is the best way to measure student effectiveness. Opponents also believe that disadvantaged students can be better served by teaching schools accountable when they perform poorly on tests.</td>
<td>Citizens contend that tests can maintain culturally biased content that may be unfair to minorities and immigrant students. Moreover, for students with learning disabilities or who possess information differently, the nature of the test itself (e.g., multiple choice or short answer) may be unfair. Critics also state that tests do not adequately measure student and school performance, and that judging (and in some cases passing) students with how test scores relate in even fewer resources for those students who need them most.</td>
</tr>
<tr>
<td>Student achievement</td>
<td>Advocates say that developing and administering tests that measure students' knowledge against learning standards will ensure that all students have certain proficiency and are not left behind or falsely proclaimed from grades to grades.</td>
<td>Critics say that many tests exist that national exams may not include content emphasized at the state level, resulting in students being tested on material they have not been taught. Moreover, critics warn of &quot;curriculum narrowing&quot; saying that the heightened attention paid to standardized tests forces teachers into ignoring content on subjects that do not appear on the tests.</td>
</tr>
<tr>
<td>Uses of &quot;high-stakes&quot; tests</td>
<td>Advocates say that tests are an important part of &quot;raising the bar&quot; on student performance. Attaching test results to grade promotion, graduation, and teacher evaluations, tends to narrow message to students, teachers, school leaders, and parents that students need must proficiency levels.</td>
<td>Critics also &quot;test anxiety&quot; resulting in lower scores that accurately reflect knowledge. Critics also contend that standardized tests must be coupled with other assessment tools, including classroom work, student portfolios, and number evaluations to accurately assess achievement.</td>
</tr>
<tr>
<td>Validity of test scores</td>
<td>Advocates say that standardized tests are the most objective and accurate measures of students' knowledge and skills. Because they ensure normative passing and specific criteria to which students are compared, tests created by high quality test makers can measure each student's abilities with precision.</td>
<td>Critics say that test making is far from a perfect science. Tests may contain errors, making results inaccurate. Furthermore, a test's standard error of measurement may be large enough to cast doubt on the validity of test results in decision-making.</td>
</tr>
<tr>
<td>Using tests to determine school funding</td>
<td>Advocates say that schools should be rewarded financially for performing well on standardized tests, and that providing such incentives motivates school leaders and teachers to teach effectively and raise student performance.</td>
<td>Critics say that financial rewards for schools in which students perform well are inappropriate. They argue that it is unfair to support schools in overcrowded areas to perform as well as those in wealthy areas. Withholding funding to schools in need will further stigmatize performance levels.</td>
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Table 2. Three types of validity for evaluating the efficacy of assessments.*

<table>
<thead>
<tr>
<th>Type of Validity</th>
<th>Evaluation Method</th>
<th>Common Use</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Validity</td>
<td>How well does the content of the test sample the content to which it is intended to measure?</td>
<td>Does the test measure what it claims to measure?</td>
<td>To determine if a test is unbiased, the results should correlate highly with other test results.</td>
</tr>
<tr>
<td>Criterion-related Validity</td>
<td>How well does the test correlate with other variables that measure the same characteristic or behavior?</td>
<td>Does the test correlate with other tests that measure the same?</td>
<td>To determine if a test is high-quality, the results should correlate highly with other test results.</td>
</tr>
<tr>
<td>Construct Validity</td>
<td>How well does the test correlate with other tests that measure the same construct?</td>
<td>Does the test measure an established construct or trait?</td>
<td>To determine if a test is high-quality, the results should correlate highly with other test results.</td>
</tr>
</tbody>
</table>

*Note: The table is based on information from:bish, A. & Michael, 1990; Seligman, 1994.*
Table 3. YouScience Aptitude Assessment – Lowman’s (1991) Seven Guidelines Met

YSAB = YouScience Assessment Battery
BAB = Ball Aptitude Battery [from the Ball Foundation]

Validity
Is there convincing evidence for the construct and predictive ability of the assessment?

In utilizing the BAB for its source item and construct, and conducting a normalization study to confirm the content and construct correlations with the BAB, the YSAB shows convincing evidence for the construct and predictive validity of the assessment. An examination of the different tests across the different age groups revealed a substantial correspondence for results across age groups, and normally distributed score ranges on the individual tests in the YSAB. A confirmatory factory analysis for the subtest constructs was determined through the Sum of Squared Residuals analysis. The analysis presented a resulting root mean square residual of 0.92 between the two batteries.

Reliability
Does the test measure the aptitude consistently?

Analysis presented an overall correlation of the assessments with $r=0.85$. This reliability result, in addition to the construct correlations between the YSAB and the BAB, showed the overall results of the YSAB to be sufficiently correlated to the original BAB source battery. The YSAB algorithms were updated based on the scoring distribution from the study population, by scaling raw scores to a percentile distribution scale.
UNDERSTANDING the IMPACT of CAREER VALUES on CAREER SATISFACTION: Utilizing Card Sorts in Career Counseling
by Jael A. Esquibel, Bonnie Nicholson, and Jennifer Murdock

Career values are a component of several career theories including, Super’s Theory of Vocational Choice, Theory of Work Adjustment, and Brown’s Values Based Approach (VanVoorhis & Protivnak, 2012; Sharf, 2010). Satisfaction and happiness in career is enhanced when an individual is able to find a job or a work environment that matches their career values (Ravari, Bazargan-Hejazi, Ebadi, Mirzaei, & Oshvandi, 2013; Bouwkamp-Memmer, Whiston, & Hartung, 2013; Sharf, 2010). As counselors, we often encourage our clients to seek out and find the best fit in a career or job in order to obtain career satisfaction. Finding one’s best career fit incorporates identifying various components of career satisfaction including interests, abilities/skills, personality preferences, and career values and matching them to career and educational opportunities (Smith & Campbell, 2009; Rottinghaus & Zytowski, 2006; Sharf, 2010). Values are tied to our innermost selves, our core beliefs, and they define what is most important to us. Career values are the values an individual must have in their work in order to feel rewarded and experience overall career satisfaction (Sharf, 2010). Career values may be particularly difficult for clients to identify as values sit below the surface of consciousness, yet they are one of the most helpful aspects of career and educational decision making (Balsamo, Lauriola & Saggino, 2013). Although values can be one of the most important aspects of finding a satisfying career (Rounds, 1990), clients may have difficulty identifying what their values are and may not consider values when making career and educational decisions (Sharf, 2010; Smith & Campbell, 2009). Many people who report being unsatisfied with a career choice or who are unable to tolerate performing certain tasks or duties may be experiencing incongruence between values and career. If they have never consciously identified their career values they may have chosen a career that does not align with their values, yet may not be able to verbalize this dissonance and understand why dissatisfaction has transpired.
Because values are intangible and are often difficult for clients to identify and verbalize, being asked to prioritize career values when a client is already struggling with career decision making, may seem overwhelming. The Knowdell Career Values Card Sort (Knowdell, 2004) is one commonly used career values card sort assessment and provides an example of a simple way for clients to identify and explore their career values. Clients can then use this information to overcome obstacles and engage in successful career and education decision making. This assessment may be used with diverse clients across the lifespan, from college students who are exploring what major to declare or how to apply their education to adults who have been in the workforce for some time and are looking for a career shift. Clients cannot be expected to find their best career fit without first understanding what this means and what information to use, which includes their career values. Clients who express career or education related dissatisfaction or exhibit a barrier in decision making due to an incongruence between a career and what they value may benefit from a career values card sort.

A career values card sort assists counselors with clarifying client experiences and expectations for career, education, and the world of work. Understanding clients’ values can provide a wealth of information for the counselor regardless of setting, and by utilizing this assessment a great deal of information is divulged in a short amount of time. Clients are provided with the opportunity to identify and verbalize their values, which may be beneficial not only in career and education decision making, but with interviewing skills and writing strong application materials. Many employers are looking for candidates whose values match their organization and screen candidates based on this information. A client who can easily answer an interview question about why they want to work for an organization or who can express their passion for a position through matching their values with the organization’s values increases the client’s confidence as well as their competitiveness in the interview process.

Using the Knowdell Career Values Card Sort
The Knowdell Career Values Card Sort (CVCS) is a non-standardized assessment that empowers clients to prioritize their career values and assess their significance that can be utilized in a variety of counseling settings. This assessment comprises of a pack of 60 cards which includes 54 variables of work satisfaction cards consisting of a value and a brief definition of that value, five category cards (Always Valued, Often Valued, Sometimes Valued, Seldom Valued, and Never Valued), and one brief instruction card. The Career Values Card Sort increases client awareness at any stage in their career development by providing them with a tangible tool to identify salient values and offers language to what
they may be searching for in a career or educational environment. Clients who complete the CVCS are able to bring attention to their career values and explore how values pertain to career and educational aspirations and satisfaction (Career Trainer, 2014).

This is one example of a style of card sort assessment which allows the client to be the expert of their own values. From previous experience utilizing the CVCS with clients, it has been observed that clients are able to make individualized meaning of the value cards as it applies to their life experience. This encourages individual interpretation, making the values card sort personal and allowing the client to define the definition and significance that is attributed to each value in consideration of future educational and/or career opportunities.

It is the opinion of the authors that the CVCS is best used once a therapeutic relationship has been established. Understanding the client’s background and their goals, whether through an intake, goal settings, or previous sessions, are important aspects for the effectiveness of a values card sort. An established therapeutic relationship and an appropriate understanding of the client’s history increases the ability of the counselor to process this assessment in an effective manner and provide an opportunity for the client to experience greater self-awareness and growth. A values card sort may be used both with individuals as well as with groups. Processing the CVCS in a group is similar to processing with an individual client and has the potential to be a powerful and therapeutic process for clients in groups. For the purpose of this article, we will focus on using a values card sort with individual clients.

There are multiple ways in which a counselor may provide and interpret card sort assessments. One way that this author has utilized the CVCS in session has been to break up the assessment interpretation into three stages. The first stage consists of the card sorting and prioritizing of values into the five categories, the second stage involves processing the client’s experience during the first stage and exploring the client’s career values in depth, and the third stage includes encouraging meaning making and incorporating information gained from the processing of the CVCS into career and education decision making (Career Trainer, 2014). The CVCS is a non-timed assessment and can easily be completed in a typical 50 minute session. Sorting the full deck of cards usually takes clients about five to ten minutes to complete and processing time takes approximately 30-40 minutes depending on the client and their goals and expectations for the outcome of the assessment results.

When used in a career counseling setting, it is best to begin the CVCS by clarifying the perspective the client will use to prioritize their values. The practitioner asks the client to use a career and work environment perspec-
ative to prioritize their values. Since career values and personal values may differ for some clients, acknowledging potential differences between personal and career values is an important aspect of this assessment and will increase the client’s awareness of how, if at all, values may change based on a given setting. For example, one of the values in the example card sort is “Spirituality.” For some clients this may be a strong value in their personal lives but they may not feel the need to incorporate it into their work life, whereas other clients may find the value spirituality to be an incredibly important aspect of their personal and work life. Personal values and career values have been shown to be related; however the variance between the two suggests that they are indeed two separate constructs (Leuty & Hansen, 2013). Encouraging discussion on the similarities and differences between personal and career values during the processing of a values card sort may be appropriate to increase client awareness as well as the validity of the assessment.

Stage One
Once the expectations and the purpose of the assessment have been established, the counselor lays out the five category cards in order from “Always Valued” to “Never Valued.” The deck of cards is given to the client, in no particular order, and the client is asked to sort the value cards into the various categories. It is highly recommended to encourage the client to define the value as they understand it and sort the value cards accordingly. The counselor should be careful of imposing their own meaning of the values in the client’s definition. The client has the freedom to move each value card from one category to another until they feel confident in their prioritization.

As the client is sorting the value cards, the practitioner utilizes the time to purposefully observe the client’s process in prioritizing their values. This is an opportunity to be mindful of the client’s experience and to look for themes and patterns as well as incongruences, should they exist, in the way in which the client prioritizes their values. This assessment has a strong experiential component as it provides a tangible experience to an intangible concept, thus having the capability to produce an array of emotional experiences that often prove enlightening during the processing stage. Encouraging the client to sort the value cards without interruption allows them to fully engage in the experiential aspect of the assessment.

Stage Two
Once the client completes the card sort, the counselor inquires about the client’s experience while sorting and prioritizing their values and provides the client with the opportunity to move any cards into a different category. If the client is confident with the prioritization of their value
cards, the processing may begin, keeping in mind that the client may move cards at any time during the assessment as new information arises. Beginning with open ended questions regarding what the client experienced while prioritizing their values enables the client to focus on the experiential component of the assessment. For example, “What came up for you as you completed this assessment?” and “What was challenging and what was easy about prioritizing your values?” Next, the practitioner directs attention to the “Always Valued” category and asks the client to describe each value card in this category, how they define the value, what it means to them, and how they would describe the value in a career. Next, the counselor inquires about any themes or patterns the client may have noticed while further exploring their values in the “Always Valued” category as well as how these values may relate to their interests and abilities. Once the client has spoken to their personal discoveries, the counselor may choose to convey any themes or patterns they have noticed as they observed the client complete the CVCS and discuss how these themes and patterns relate to the client’s interests, abilities, and future career aspirations.

This would also be an opportune time to incorporate any previous career assessments the client may have completed, including the Strong Interest Inventory (Strong, 2005) and/or the Myers-Briggs Type Indicator (MBTI) (Briggs & Myers, 1998), as there are typically recognizable themes between career values card sorts and these assessments. The Strong Interest Inventory (2005) indicates typical values that are found within each of the six interest themes on the results profile. For example, typical values listed as associated with the interest theme “Social” are “Cooperation, generosity, service to others.” Similar values appear in the CVCS such as, Work with Others, Help Society, and Help Others. A plethora of research has been conducted on the correlation of values and MBTI type and how these relate to career decision making (Briggs Myers, I., McCaulley, M.H., Quenk, N.L., Hammer, A.L., 1998). Recognizing and addressing any parallels that might exist between prioritized values from the CVCS, values associated with their Strong Interest Inventory interest themes, and the values of the MBTI personality type may be beneficial to the client by providing them further insights on how their values match career and educational considerations provided by these assessments. Considering additional assessments that provide information regarding career and career values promotes a holistic perspective of identifying career satisfaction and allows clients to evaluate career and education decisions thusly.

The instructions for using the Knowdell Career Values Card Sort state to limit the “Always Valued” and “Never Valued” categories to ten cards.
each (Career Trainer, 2014). This author has observed that having the client identify their top ten values gives them a manageable number of values to concentrate on to aid in their decision making. Should the client have more than ten, the counselor asks the client to narrow down this category to only ten value cards. The counselor may ask the client if they had to choose only ten value cards for the “Always Valued” category, which ten would they keep and which ones would they move to another category. This provides an additional opportunity to process the experience of having to symbolically give up a value. Exploring the client’s decision making process in giving up a value(s) as well as the emotional and physical reactions experienced during this process may increase the client’s understanding of their most salient values. Once a client has no more than ten cards in the “Always Valued” category, the practitioner assists the client with identifying which of these values they believe must be met in a career in order for the client to feel satisfied. We will refer to these values as deal breaker values. Deal breaker values in the “Always Valued” category are values that must be met in order for a client to experience career satisfaction. Knowing one’s own deal breaker values can be extremely helpful when making difficult career or education decisions. Assisting the client with recognizing these top values aids them in their decision making process by weeding out career opportunities that will not meet their needs and decreases overall career satisfaction, motivation, and success.

Next, the practitioner explores the “Never Valued” category with the client and repeats the processing steps used with the “Always Valued” category, including limiting this category to no more than ten cards. It can be beneficial to split this category into two separate categories during processing. Included in the first category are values that the client feels indifferent to, meaning that they may not care about this value, but it does not matter to them if the value is promoted in a career. The second are deal breaker values used in this category as opposite to the Always Valued deal breaker values. That is, if these values exist or are promoted as a part of a career or educational environment the client would be extremely dissatisfied.

Stage Three
After exploring the “Always Valued” and “Never Valued” categories, the counselor and client explore how the information and insight gained from this assessment may aide in their career and education decision making or assist them with overcoming obstacles that may be hindering their decision making process. Counselors assist clients with determining how they might utilize this new information, particularly from identifying their deal breaker values (both always valued and never valued), to iden-
tify potential career possibilities. For clients who have less knowledge about the world of work, or what kinds of values an occupation or career field may encompass, it is essential that the counselor provide resources for the client to use as research tools to identify occupations that incorporate values that are congruent to their own, rather than relying solely on client perceptions of careers, which may or may not be accurate. This diminishes the possibility for a client to make false presumptions about potential careers and educational opportunities. The counselor can also incorporate additional resources available on various websites to supplement the processing of the card sort and provide a tangible resources for the client to refer to after their leave the appointment (Knowdell, 2014). One particularly helpful resource is O*NET (www.onetonline.org), an online database of occupational information, which includes information on values for each occupation in the database. Demonstrating how to search for occupational information using O*NET may assist the client to adjust any faulty presumptions they have regarding potential occupations. The counselor may want to consider providing information to the client on informational interviewing and job shadowing as other ways for clients to increase their understanding of occupations, careers, and work environments of interest and how values within these careers may or may not align with their own (VanVoorhis & Protivnak, 2012). For clients who may be seeking to identify a college major or a career training program or a graduate school program, the counselor might suggest using informational interviewing with students already in the major or program to gain more information from an experienced perspective.

**Case Study**

Elyse is a 20-year-old, Hispanic female who is a first generation student currently completing her sophomore year at a public university. Elyse is pursuing a major in sport and exercise science (SES) with the intention of becoming a Physical Therapist and has recently added a minor in recreation, tourism, and hospitality (RTH). She reports that so far she has been successful in her SES classes, yet she has been enjoying her minor courses tremendously and has felt an immediate connection with her peers in these courses as well as the professors, which she has not felt in her major. Elyse is struggling to decide if she should change her major, yet is concerned about her parents’ reactions to switching her major and is unsure if this is really the best decision for her future career. Elyse seeks assistance from a career counselor to decide on whether or not to change her major and what career to seek after she graduates from college. After meeting with a career counselor to discuss her academic major and career concerns, Elyse agrees to a CVCS assessment. Elyse completes the Knowdell CVCS to determine values that are salient to her in a career. Values that were easiest for Elyse to prioritize include,
Help Society, Help Others, Work-Life Balance and Family, which were placed in the “Always Valued” category. The other value cards in this category are Community, Recognition, Fun and Humor, Work with Others, Adventure, Friendships, Change and Variety, and Group & Team. In the “Always Valued” category, Elyse observes a theme of working with and helping people as well as a focus on valuing relationships. With her counselor, she explores why these are important to her in a career. Elyse states that it is important for her to make a positive impact on others and that she feels rewarded when she knows she is the reason behind someone having a great experience and enjoys being recognized for these accomplishments. She identifies wanting a work-life balance in her career so that she will have time to spend with family and participate in leisure activities that are important to her. When asked to limit her “Always Valued” category to ten value cards, she decides, after some thought, to move Group & Team and Change and Variety to the “Sometimes Valued” category. When asked about her experience having to choose only ten “Always Valued” value cards, Elyse reports that it was difficult to give up two of her top values as they were important to her, yet she realized which values were absolutely most important to her in a career. She stated that as long as she is working with people she would be happy working one-on-one or in a group and although she would like to seek a job with change and variety, she would be satisfied with a slightly more monotonous job as long as she maintained a work-life balance and built strong relationships with her coworkers.

Elyse and her counselor then explore the value cards placed in the “Never Valued” category. Elyse has selected the following values for this category: Work Alone, Supervision, Artistic Creativity, Precision Work, Work on the Frontiers of Knowledge, Challenging Problems, and Steep Learning Curve. Elyse identifies Precision Work as something she would not be able to tolerate and that it would be exhausting for her to concentrate on miniscule details often, a deal breaker value. Two other deal breaker values Elyse identifies are Challenging Problems and Steep Learning Curve. She reports that she has little desire to constantly work on solving challenging problems and doing work with a steep learning curve and that she would prefer to gain the experience and education needed up front to easily solve problems in her career. She expresses no interest in supervising others and states that perhaps after more experience she would feel comfortable with supervising. Elyse shares that she is indifferent to artistic creativity in her work.

Elyse is then encouraged to examine how the information she has discovered may be used in making a decision on her major and what types of careers to pursue after graduation. Elyse reports that both SES and RTH majors would be a good match for working with and helping others. She
states that RTH may have more career opportunities to work in teams and experience adventure and that this career area would likely not require as much precision work or steep learning curve whereas becoming a physical therapist requires continuous learning and staying updated on advancements in the field. Elyse realized that these parts of being a physical therapist may not be congruent with her career values. Elyse also observed that she could help people through a career in recreation and tourism such as becoming a tour guide or a coordinator of recreational activities that would be fun and help create strong community, all values that Elyse identified as salient. Elyse is provided resources to further research occupation and career information to compare to her values including, information on O*NET and how to use this resource to research information on occupations within RTH as well as information on being a physical therapist. Elyse is encouraged to research these career areas and return to career counseling once she has gathered more information to continue to discuss next steps towards making a decision as well as to address any family considerations or barriers to decision making.

**Considerations When Using the Career Values Card Sort**

One potential limitation to the CVCS is the sorting of values into categories taking place directly in front of the practitioner. The practitioner is intentionally observing the client as they complete the card sort, which could cause some discomfort for the client. It is important to note that the client may be providing some very personal and sensitive information about themselves through this assessment. Because values are such an intimate part of an individual’s identity, openly sharing what the client values and does not value may be a huge risk for the client. Fear of judgment from the counselor, family members, or even from themselves may inhibit the client from authentically completing the assessment. The impact of societal expectations may be another area of concern with this assessment. Clients may feel pressured to conform to societal and/or familial expectations and therefore be less authentic in how they choose to prioritize their career values.

As with many assessments, validity and usefulness of results may depend on the client’s honesty and genuineness in their responses. If a client does not feel comfortable with the practitioner, is uncertain of how the practitioner may react to their responses, or feels that they must respond based on family expectations, the results of the CVCS may not be beneficial to the client. For example, if a client never values helping people, yet feels a societal pressure to say that they should value helping people, the client may feel embarrassed or be less likely to put the value card Helping People in the “Never Valued” category. This has the potential to result in an inaccurate portrayal of the client’s values, which may decrease the effectiveness of the values card sort assessment. It is recommended to
clarify expectations for the assessment before the client begins. Clients should be reassured that there are no right or wrong answers and/or ways to prioritize their values. One way to decrease the likelihood of these two limitations occurring is to ensure that a therapeutic relationship has been established between counselor and client and to directly address potential barriers that may exist in completing this assessment.

Multicultural Considerations
The CVCS is adaptable across cultures and allows individuals from diverse populations to examine values through their own cultural lens. Clients from various backgrounds are able to individualize the value cards by using their own definition and understanding of the value. Though there are a wide array of values provided that address various aspect of career satisfaction, it is possible that a client may find the value cards to be more related to career satisfaction in western culture. Other cultural considerations for a values card sort is that it is designed to focus on the individual and what values are important to them, which could conflict with clients who are from collective cultures where the focus may be on shared family values (Sue & Sue, 2008). If a practitioner is intentional about the use of the CVCS and is working with a client from a collective culture, setting the framework to incorporate family or societal values as part of the individual’s values can assist with the adaptation of this assessment to be more effective with these client populations.

Conclusion
This assessment provides clients with the opportunity to become aware of a piece of the career satisfaction puzzle that can be used to aide in career and education decision making. It is important to note that not all clients may have the opportunity to completely change career paths, due to financial, familial, or other personal and professional reasons. Nevertheless, this assessment may be used as a tool to assist clients with increasing awareness and understanding of why they may not be experiencing career satisfaction. It may provide essential information that allows the counselor and client to explore strategic ways to have their needs met within the current confines of their job or career. Acquiring career satisfaction is closely tied to an individual’s personal happiness (Sharf, 2010). The aim of career counseling is to assist clients with career satisfaction through examining personal interests, abilities/skills, personality preferences, and values and connecting them to potential career and education opportunities (Sharf, 2010). Assisting clients with identifying their career values is an essential aspect of career counseling. Clients who are able to make informed career and education decisions utilizing career values increase their chance of finding their best career fit and experiencing overall career satisfaction throughout their lifetime (Hofmans, De Gieter, & Pepermans, 2013). Utilizing a tangible tool, such as
values card sort, enables clients to identify and prioritize their career values and creates an experiential process, which augments personal growth and insight that can be used in both current and future decision making processes. Incorporating a career values card sort into career counseling practice is an excellent way to aide clients through their decision making processes and towards achieving career counseling goals. Through the use of a values card sort, career counselors are able to serve their clients by assisting them with identifying and prioritizing career values and using values as a tool to overcome career obstacles, enhance effective career decision making, and bolster career success.

References


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