Intention and Purposefulness in Career Assessment

Amanda Sargent & Beth Harlan
Guest Editors

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Looking Ahead with the Journal

We present our frequently updated journal special issue covering recent developments in Career Assessments, with Guest Editors Amanda Sargent at the University of North Carolina-Charlotte and Beth Harlan at Georgetown University. Our deep thanks to them and our excellent authors of articles.

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

A Life in the Military: Serving Worldwide Protecting Their Nation. Guest Editor is United States Air Force veteran Charles Lehman, past president of New Mexico chapter of the National Career Development Association and a well-known expert on the Labor Market. He serves as co-chair of the NCDA Veterans Committee. Co-Editor is Steven E. Beasley, Korean War U. S. Navy veteran and forthcoming Editor Emeritus of this Journal.

Career Help for the "Lost Ones" with Guest Editor Sharon Givens, PhD, family counselor in Columbia, South Carolina.

Effective Practices in College and University Career Services. Guest Editors are Paul Timmins of University of Minnesota, the new NCDA President, and Debra Osborn of Florida State University, Past NCDA President.

Book Reviews 2018 with Book Reviews Editor Maggi Kirbride.

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Introduction

INTRODUCTION TO THIS ISSUE
This special issue on Intention and Purposefulness in Career Assessment calls attention to a topic near and dear to the hearts of myself and Co-Editor Beth Harlan. As career development practitioners and professional counselors, assessment is a large part of the meaningful and challenging work we do with clients. With this issue, we hope to show how purposefulness may be brought into the many facets of career assessment, and emphasize the great responsibility we have as career practitioners in the creation, selection, and use of assessment instruments.

We decided on the theme of intention and purposefulness as a way of unifying career development practitioners in our goal of serving clients ethically and responsibly. Beth and I come from two different “camps,” so to speak, when it comes to career development theoretical approach: she with her excellent work with Narrative techniques at Georgetown and I with my affinity for Cognitive Information Processing Theory at Florida State. However, what we have built our professional relationship (and friendship!) upon has been our shared desire to ensure the well-being of our clients in context. We believe this desire is at the heart of all true career development practitioners and that it transcends theoretical preferences and loyalties. We are all committed to helping our clients achieve their career goals and seek to empower them to live the lives they desire. We may have different methods of facilitating this process, but our aim is universal.

What Beth and I have found over the years of our friendship is that both of our practices, and lives for that matter, have been enriched through our engagement in conversations that introduce perspectives and techniques different from our own or unfamiliar to us. Rather than insisting that our preferred way is the “right” way, we have conceptualized cases together and explored a variety of possibilities for working with client career problems, often combining approaches and choosing techniques outside of our foundational theory base to tailor interventions to our clients’ specific needs. What has allowed us to do this without sacrificing quality or coherence in practice, is our vigilant observance of intention and purpose. Beth and I have consistently engaged in the critical evaluation of theories and techniques, both in and of themselves and as applied to individual client cases. This critical evaluation combined with collegial consultation has helped us to ensure our work is purposeful and evidence-supported while addressing client problems in context. I truly believe that the exploration of our differences has helped us to see what unites us as career development professionals, kept us accountable in our practice choices, and made us better practitioners overall.

We invite career practitioners to join us in critical evaluation and consultation around the topic of career assessment. We present in this issue 10 meditations on career assessment that both detail specific instruments and discuss how to bring intention and purposefulness at every contact with career assessment. Our authors explore instruments old and new and discuss ways practitioners may incorporate intentionality into facets of career assessment such as instrument development,
training, administration, interpretation, and application. A brief description of each article is provided below:

In the first two chapters, we are asked to consider the role of intentionality and purpose in the creation of career assessments. In The Career State Inventory (CSI) as Intentional Assessment, Dr. Steve Leierer, Dr. Gary Peterson, and Dr. Robert Reardon provide a discussion of intentional and purposeful assessment development as they introduce readers to the Career State Inventory (CSI; Leierer, Peterson, Reardon, & Osborn, 2017). The CSI assesses readiness related to career decision making and problem solving. Recommended uses of the CSI are provided as well as case studies for readers to see the assessment in action.

Continuing the focus on assessment development and utilization, we hear from Dr. Rich Feller and Jenn Long, who revive conversations about aptitude assessment in career development work with YouScience Aptitude Assessment Moves Career Science Beyond Self-Report Interests. A new computerized assessment program, YouScience, is reviewed and two case examples are provided as readers are asked to consider the social justice aspects involved in career assessment and how the marriage of technology and career assessment can help to bridge access gaps while engaging clients in career exploration and decision making.

The middle five chapters of this special issue look at intentionality and purposefulness in administration and interpretation of specific career assessment tools in practice. Best Practices for Selecting, Administering, and Interpreting Career Assessments: A Case Study with the Work Values Inventory by Jennifer Greene and Melissa Messer offers readers recommendations for development, selection, administration and interpretation of career assessment against the backdrop of the Work Values Inventory (WVI; Messer & Greene, 2016).

Amanda Sargent and Dr. Janet Lenz draw attention to the importance of integration of theory, research, and practice as a way to ensure intentionality in career assessment using the example of the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996), complete with implementation strategies, in The Career Thoughts Inventory (CTI) and CTI Workbook: A Purposeful Integration of Theory, Research, and Practice in Career Assessment and Intervention.

Clarification through Storytelling and Storylistening using the OneLifeTools/CareerCycles (OLTCC) Narrative Assessment System provides an introduction to the OLTCC system of career assessment based on narrative theory and written by one of the developers, Mark Franklin. OLTCC combines an interpersonal gaming experience and online technologies to facilitate career exploration and planning.

We revisit the popular Myers-Briggs Type Indicator (MBTI®) in Unlike Other Psychometrics: Understanding the MBTI’s Valuable Niche in Career Development. Dr. Rich Thompson shares his perspective of appropriate use of the MBTI® as the responsible party for the assessment’s updates at CPP for the past decade.

Cori Shaff and Emily Hoyt give readers an in-depth look into the CliftonStrengths (Rath, 2007)
in The CliftonStrengths: Focusing on Strengths as a Predictor of Success. Suggestions for administration, interpretation, and next steps are provided and exhibited through case study examples.

We conclude the issue with final chapters that ask us to consider additional ways to be intentional with career assessment. Kendra Northington shows readers how her institution has utilized the Career Decision Self-Efficacy Scale (CDSE; Betz & Taylor, 2012) as a means of both career assessment of individuals and program evaluation in Using the Career Decision Self-Efficacy Scale to Evaluate a Career Development Course. Ms. Northington exposes us to a unique application of a career assessment that shows how instruments can be multipurpose when used intentionally. The final piece in this special issue is from Dr. Seth Hayden, who gives readers an opportunity to explore how those who supervise practitioners-in-training might be intentional as they teach students to work with career assessments in Fostering Intentionality in Career Assessment through Counseling Supervision. Dr. Hayden’s article describes the crucial components of career assessment utilization and provides suggestions of “better practices” to foster trainee competence and growth.

We are so pleased to invite readers to consider the content of this special issue as the beginning of a dialogue amongst passionate career development professionals that encourages diversity of thought and embraces all perspectives of career development assessment intervention. We hope that in reading the articles within, readers will think deeper about the interventions they select for use in practice and that they will join us in the critical vigilance that is our responsibility and our privilege as caring, competent professionals.

References


About the Guest Editors

Amanda C. Sargent is a PhD student at the University of North Carolina-Charlotte (UNC) studying Organizational Science. She earned the M.A. in Counseling at Marymount University in Arlington, Virginia. She was awarded NCC, DCC, GCDF and JCDC credentials. Prior to enrolling at UNC-Charlotte, she served as Assistant Director of Career Advising and Counseling at the Florida State University Career Center in addition to service as the liaison to the FSU Graduate School and a lead instructor for the SDS 3340: Intro to Career Development course. Her professional experience includes higher education career services and teaching positions in large public, small private, and community college settings. Contact her as follows:

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Chapter 1

THE CAREER STATE INVENTORY (CSI) AS INTENTIONAL ASSESSMENT
by Stephen Leierer, Gary Peterson, and Robert Reardon

Abstract
This article describes the development and use of a new career assessment, the Career State Inventory (CSI; Leierer, Peterson, Reardon, & Osborn, 2017). The authors describe the intentional or purposeful design of the CSI, the intended ways the CSI could be used in career interventions (e.g., counseling, groups, courses), and plans for using the CSI in research and program evaluation. In general, the article focuses on why, how, and when a career assessment such as the CSI could be used in educational and career services and research. The authors envision the CSI providing a present or current voice for clients and students regarding their career state or situation. In this way, it is intended to be a client-centered career assessment.

Intentional Design of the CSI
We sought to create a simple, accurate assessment instrument without cost that could be scored quickly in order to develop insights about a client’s career decision state or present state of consciousness regarding career goals and aspirations. The instrument uses specific items that have a history in career assessment described in the Career State Inventory (CSI) Manual by Leierer, Peterson, Reardon, and Osborn (2017) and the article by Leierer, Wilde, Peterson, and Reardon (2016).

In addition, the authors also wanted to establish a link between CSI subscales assessing career certainty, satisfaction, and clarity with respect to career thinking (total score on the Career Thoughts Inventory) (CTI; Sampson Peterson, Lenz, Reardon, & Saunders, 1998). Thus, the CSI could be useful as a screening device in determining whether a client is ready to explore self-knowledge and option knowledge as a basis for identifying occupational and educational alternatives, or whether further diagnostic assessment regarding negative thinking or mental health status should be pursued.

As a career assessment, the authors wanted the CSI to have reliability (i.e., accuracy of measure), validity, (e.g., predict the CTI total score), and a career theory basis (Sampson, Reardon, Peterson, & Lenz, 2004). These were intentional aspects of the design of the CSI. Finally, we wanted to use items that had a history in career assessment.

Description of the CSI
The CSI’s ultimate purpose is to assess an individual’s readiness for career problem solving and decision making. Although this brief assessment only uses three questions to measure three
career decision state (CDS) dimensions, (a) certainty, (b) satisfaction, and (c) clarity, scores on these dimensions are significantly correlated with the CTI Total score ($R^2 = p < .01$; Leierer et al., 2016). The CSI Research Version (see Leierer et al., 2017) can be described as a measure of career decision-making readiness (Leierer et al., 2016). It can be presented on a single page or it can be included in an intake form in career counseling or as part of a background data form in orientation to a program of study. A scoring key can be attached on the back of the instrument or on a separate page for easy scoring (see Figure 1, CSI Professional Version). The CSI typically takes less than 10 minutes to complete and score. A receptionist, career practitioner, or administrator can introduce the CSI by saying, “The Career State Inventory is a brief questionnaire designed to help you to begin thinking about your career goals and a career choice you may be making.”

Four scores are derived from administering the CSI, three component scores and the total score (See Figure 1). The four components of the career state, described more fully in the following sections, include (a) the degree of certainty with respect to a career choice as measured by the Occupational Alternatives Question (OAQ), (b) the extent of satisfaction with the choice as measured by the Satisfaction Item, and (c) vocational clarity, an indicator of one’s vocational self-confidence in pursuing a career goal as measured by three items from the My Vocational Situation Vocational Identity Scale. Scores from the three dimensions are summed to provide a total CDS score ranging from 2 – 12 (see Figure 1). The 11-point continuum of the CDS profile ranges from being highly certain, satisfied, clear, and confident in one’s choice at one pole (i.e., 2-3), to being completely frozen, dissatisfied, confused, and lacking confidence in making a choice (i.e., 11-12). Mid-range scores (i.e., 6 - 8) may be described as having one or more options but still uncertain about them, having doubts about one’s capability to make an appropriate career decision, and tentative in approaching one’s career choice.

**The Occupational Alternatives Question (OAQ)**

The OAQ is a simple, novel career indecision measure. The OAQ is an unpublished, well-researched measure of client career certainty that is as old as the Self-Directed Search (Holland, 1997). Indeed, this instrument was initially used in SDS validity studies to measure the impact of the SDS on the career decision making of high school students (Zener & Schnuelle, 1972). The OAQ was revised by Slaney (1978, 1980) and the concurrent validity and the test-retest reliability was demonstrated in early studies (Bullock-Yowell, Peterson, Reardon, Leierer, & Reed, 2011).

The OAQ has been used in the Florida State University (FSU) Career Center by imbedding it into various registration and intake forms because it is a simple, quick measure of a client’s level of career certainty or decidedness. It has also been used as a pre- and post-measure of the impact of career interventions in our career center and career planning class. Based on responses from participants in our SDS workshops, the OAQ is a measurement tool that many practitioners seem to have little experience in using and might find helpful in their work.

**The OAQ consists of two parts:**

**Part 1. List all the occupations you are considering right now.** (This first item is followed by blank lines; the format is much like the SDS Daydreams section).
**Part 2.** Circle (or write in the space provided) the occupation that is your first choice (if undecided, write undecided).

**The OAQ produces four scores:**
1. = A first occupational choice is listed with no alternatives.
2. = A first choice is listed with alternatives.
3. = No first choice is listed, just alternatives.
4. = Neither a first choice nor alternatives are listed.

These four scores range from higher to lower levels of career decidedness, with lower scores (1, 2) indicating more decidedness and higher scores (3, 4) indicating less career decidedness. The OAQ is positively correlated with the CTI, higher scores indicating more decision-making confusion, commitment anxiety, and external conflict (Leierer et al., 2016).

**Satisfaction with Choice Question (Satisfaction Item)**
This instrument, first reported by (Zener & Schnuelle (1972) and modified by Holland, Gottfredson, and Nafziger (1975), asked the single question, “How well satisfied are you with your first choice?” The Satisfaction Item as originally presented was rated on a six-point scale in which 1 = well satisfied, 2 = satisfied, but have a few doubts, 3 = not sure, 4 = dissatisfied and intend to remain, 5 = very dissatisfied and intend to change, and 6 = undecided about my future career; the lower the score, the greater the degree of satisfaction with choice. Holland and Holland (1977) examined responses to alternatives 3 and 6 in the Satisfaction Item in their study of 1,005 high school juniors and 692 college juniors and found that being dissatisfied or undecided was related to a wide range of psychological variables, including negative attitude, indecisiveness, anxiety, anomie, immaturity, and alienation.

We have restructured this scale on the CSI to make it a 5-point scale by editing item responses to remove elements of decidedness and future intentionality and focus the item more homogeneously on the construct of satisfaction. Our goal was to ensure that all item responses measured a single concept, thus making it easier for the individual to understand item response options and making it easier for consumers of the results to understand the meaning of the scale (see Figure 1). The Satisfaction Item now asks respondents, “How well satisfied are you with your responses to No. 1 above? Place a check next to the appropriate statement below.” This restructuring now makes the scale a normally-distributed, single, satisfaction-dissatisfaction item with the responses on a 5-point Likert-type continuum. Restructured response scores on the Satisfaction Item are: 1 = very satisfied; 2 = satisfied; 3 = not sure; 4 = dissatisfied; 5 = very dissatisfied.

**Vocational Clarity**
Three true-false items, drawn from the My Vocational Situation (MVS; Holland, Johnston, & Asama, 1993), measure the CSI’s vocational clarity dimension (see Figure 1):
(a) “If I had to make an occupational choice right now, I’m afraid I would make a bad choice” (MVS #6);
(b) “Making up my mind about a career has been a long and difficult problem for me” (MVS #8); and
(c) “I am confused about the whole problem of deciding on a career” (MVS #9).
These items were selected a priori (by reason alone) by the CSI authors as having content validity for the career decision state with respect to vocational clarity regarding a career goal.

As with certainty and satisfaction, a false response to one of the items is scored “0” and a true response is scored “1.” The range of scores on vocational clarity is 0 to 3, with a low score indicating a high degree of clarity and confidence in career decision making, and a higher score indicating decision-making difficulty and confusion.

Finally, the sum of scores from the three CSI dimensions provide a total score ranging from 2 – 12 (see Figure 1, Appendix). The 11-point continuum of the CDS profile ranges from being highly certain, satisfied, clear, and confident in one’s choice at one pole (i.e., 2-3), to being completely frozen, dissatisfied, confused, and lacking confidence in making a choice (i.e., 11-12).

Use of the CSI
The CSI has numerous applications for practitioners in counseling and career services, and we describe some of them in the following paragraphs.

The CSI could be used as a screening instrument for clients seeking career assistance to ascertain whether further diagnostic readiness assessment would be in order. It could be administered on a client intake form along with other routine background information. Higher total scores on the CSI or any of the three individual CSI dimensions may alert a practitioner to the possibility of important personal or contextual issues associated with a presenting career problem that may impede effective career decision making (anxiety, depression, low vocational identity, locus of control, and general psychological adjustment).

It could also be used as a measure of readiness for matriculation to a program of study if it was administered at orientation to ascertain the student’s degree of certainty, satisfaction, and clarity or confidence in embarking on a career-related training program. Leierer et al. (2016) described this application in a rehabilitation services training program for undergraduate and graduate students.

A novel use of the CSI could involve measuring readiness for career problem solving and decision making in a continuing fashion, a recurring indication of progression toward a more positive career decision state. In this instance, it would be used much like the thermometer can be used to measure body temperature for someone being treated for a fever. Thus, the CSI can be viewed as a process measure during a career intervention – that is, moving along a path and not stuck with respect to career decision making. For example, the CSI may be administered routinely in academic advising throughout a student’s tenure in the program to ascertain whether there are changes in certainty and commitment to a career goal.

The CSI suggests levels of treatment relevant to CIP theory, such as self-help, brief-staff assisted, individual case managed (Sampson et al., 2004). The CSI Scores are obtained from the three dimensions (certainty, satisfaction, clarity) and these scores range from 2 – 12 (see Figure 1). The 11-point continuum of the CDS profile ranges from being highly certain, satisfied, clear, and confident in one’s choice at one pole (i.e., 2 - 3), to being completely frozen, dissatisfied, confused,
and lacking confidence in making a choice (i.e., 11 - 12). Mid-range scores (i.e., 6 - 8) may be described as having one or more options but still uncertain about them, having doubts about one’s capability to make an appropriate career decision, and tentative in approaching one’s career choice. Repeated measures could also be used to track progress along the CASVE Cycle (Sampson et al., 2004). Higher scores may be indicative of someone at the Communication phase of the cycle who is getting in touch with capability and complexity of readiness, whereas low scores may suggest someone at the Execution phase who is ready to implement a choice. Finally, the CSI could be used as an evaluation measure in career counseling or another career intervention to assess changes in the career decision state. It could be administered in a career course or workshop in a pretest-posttest manner to determine the progress and development during the course.

Experience with the CSI

Thus far, nine empirical research studies have examined the concept of the career decision state as measured by the CSI (Leierer et al., 2017). In one of the earliest studies, Bullock-Yowell et al. (2011) examined the relationships among career stress, thoughts, and the career decision state (CDS) from a cognitive information-processing perspective. According to cognitive information processing theory (Sampson et al., 2004), career thoughts mediate the relationship between career stress and the ensuing career decision state. Using a sample of 232 college students and structural equation modeling, this study found that an increase in career stress was associated with an increase in negative career thinking and that an increase in such thoughts was associated with a lower level of decidedness and satisfaction with choice, two aspects of the career decision state. However, when the variation associated with negative career thoughts was partitioned in the mediated causal model, career stress became associated with less indecision and dissatisfaction with career choice in the CDS. The results suggested that counselors should pay particular attention to negative career thoughts when individuals experience or express symptoms of depression as a precursor to career indecision or dissatisfaction.

More recently, Freeman, Lenz and Reardon (2017, in press) used certainty about a career goal and satisfaction with that goal in a study of the career decision state with 108 students in a career course. They examined the impact of a career course intervention on two factors, the students’ CDS and their affective state. These two factors emerged from an Exploratory Factor Analysis using the Eigenvalue 1.0 Rule. The career decision state was measured using the Occupational Alternatives Questionnaire and Satisfaction Question, and the affective state was measured using the Goal Instability Scale and Career Thoughts Inventory. Findings revealed that the career course positively affected both CDS factors by reducing their negative influence. At the end of the course, students were more certain and satisfied with their career state, and had more positive motivation for goal setting and less negative career thinking.

In a course evaluation study, Miller (2016) examined the impact of the course on students’ career decision state. He found that at the end of the class students reported significantly lower OAQ scores (indicating higher decidedness), lower satisfaction scores (indicating higher satisfaction), and lower clarity scores (indicating higher clarity and confidence). This means that after taking the career course, students were significantly more decided about an occupational choice, more satisfied with that choice, and clearer about the career decision-making process.
Three Case Studies
In this section, we will use the CSI to quantify the career decision state of three illustrative clients. Each client made a decision to obtain career services and explore concerns related to occupational choice, satisfaction with the choice, and career decision making. With these case studies, we illustrate use of the CSI in varied situations and ranges of CSI scores, along with an analysis of each case in terms of the context and the practitioner’s perspective on the intervention. (Note: client names and other information have been changed to protect anonymity and confidentiality.)

Anne: CSI results: Certainty = 2, Satisfaction = 2, Clarity = 0, Total = 4

Context. Anne, a 19-year old college sophomore, came to the career center for assistance in finding information about career options related to her major in exercise science. The OAQ revealed that she had also considered physical therapy and physician assistant in the past. She appeared confident in her self-knowledge, her ability to make educational and career plans, and was eager to engage the career advising process.

Intervention. The CSI scores, especially Clarity = 0 and Total = 4, suggested that Anne might be a candidate for self-help services, and the career advisor heard nothing in the brief interview that was inconsistent with these results. There was no indication of complexity affecting her career decision making (Sampson et al., 2004). The career advisor theorized that Anne was in the Synthesis Crystallization phase of the CASVE Cycle (Sampson et al., 2004) and needed to explore career information in order to narrow her options. The career advisor suggested that Anne examine the RIASEC hexagon (Holland, 1997) and rank the descriptions of the six types. She quickly identified the Social, Artistic, and Investigative (SAI) types as most like her. As a result, the advisor showed Anne the Occupations Finder (Holland & Messer, 2013) in order to explore occupations and majors related to the combinations of the SAI code. In a few moments, Anne saw the occupation (art therapist) and asked for more information. The career advisor showed her how to use O*NET for that occupational information and Anne later found that art therapy was a major at the university.

Initial Outcome. Eager to explore more information about this new career option, Anne thanked the career advisor for her assistance. She indicated that her career planning needs were fulfilled for now and that she would return to the career center in the future if needed. Readers wanting more information about this case can read the article by Kronholz (2015).

Jaquez: CSI results: Certainty = 3, Satisfaction = 3, Clarity = 3, Total = 9

Context. Jaquez, a 21-year old first-year graduate student in biological mathematics, came to the career center for career planning assistance. He indicated being very undecided and anxious about his future career. As an undergraduate math major, he had always found the subject easy and obtained a good graduate assistantship to support his education. But he wondered if he was missing some other options, and had listed mathematician, exercise physiologist, sports performance manager/analyst, and lecturer on the OAQ as other considerations. He was interested in taking assessments that might help him in career planning.
**Intervention.** The career advisor noted that Jaquez had marked all three Clarity items as true, and his Total score of 9 indicated he was a possible candidate for individual case-managed assistance. The career advisor theorized that Jaquez was in the Communication phase of the CASVE Cycle (Sampson et al., 2004). As a result, the counselor suggested that Jaquez complete the Career Thoughts Inventory (Sampson, Peterson, Lenz, Reardon, Saunders, 1996) and the Self-Directed Search (Holland & Messer, 2013) before leaving the career center. A follow-up individual counseling appointment was scheduled for the next day.

**Initial Outcome.** The CTI results confirmed the CSI scores for Jaquez: CTI Total score 76 (92nd percentile for college students), Decision-Making Confusion 22 (93rd percentile), Commitment Anxiety 25 (99th percentile), External Conflict 1 (14th percentile). These CTI scores indicated the presence of negative career thoughts that would impede effective career decision making, and the counselor provided a copy of the CTI Workbook (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996) for use in future counseling sessions. Together, they would seek to reframe troublesome negative thinking in order to improve career planning. There was no indication of complexity affecting Jaquez’s career decision-making readiness.

The SDS results revealed a Summary Code of SIA and an Aspirations Summary Code of SEI. In addition, the scores on all secondary constructs (Congruence, Coherence, Consistency, Profile Elevation, Differentiation, Commonness) were in the average range (Reardon & Lenz, 2013). Jaquez was relieved to see that his interests and preferences had common characteristics in the Social, Investigative, and Artistic areas, along with the Enterprising area. These four areas were adjacent on the RIASEC Hexagon (Reardon & Lenz, 2015) and congruent with his occupational aspirations that he had not previously understood. This information reduced his level of uncertainty and increased his level of satisfaction regarding his career options.

**Ari:** CSI results: Certainty = 3, Satisfaction = 5, Clarity = 2, Total = 10

**Context.** Ari is a sixth-year senior who has changed her major several times. She came to the career center to explore options. On the OAQ, she listed zoologist, veterinarian, nurse, artist, occupational therapist, and speech therapist. In high school she planned to become a pediatric nurse, but two “weed-out” college nursing classes changed her mind. As a sophomore, she became a fine arts major but was not comfortable discussing this with her friends and family. Their advice was confusing and maybe contradictory: “Do what you love and the money will follow,” and “Make sure you chose a career that pays well so you have financial independence.” She is torn between interesting work that does not pay well and uninteresting work that provides income and stability. She indicated that her biggest mistake was forgetting to learn about herself.

**Intervention.** The career advisor noted that Ari had a score of 10 on the CSI indicating she was a possible candidate for individual case-managed assistance. The career advisor theorized that Ari was in the Communication phase of the CASVE Cycle (Sampson et al., 2004) with probable complexity issues affecting her career planning. Ari marked two clarity items, “Making up my mind about a career has been a long and difficult problem for me,” and “I am confused about the whole problem of deciding on a career.” As a result, the counselor suggested that Ari complete the CTI and return for individual counseling. The counselor also made a note in the record that
Ari should complete the Career Decision Space Worksheet (CDSW; Peterson, Leasure, Carr, & Lenz, 2009-2010). This exercise would enable Ari and the counselor to create a cognitive map of all the elements in the career problem space and the relative influence of each element.

**Initial Outcome.** The CTI results confirmed the SCI scores for Ari: CTI Total score 78 (93rd percentile for college students), Decision-Making Confusion 19 (86th percentile), Commitment Anxiety 27 (>99th percentile), and External Conflict 6 (88th percentile). The CSI results provided evidence that Ari had made a good decision in coming to the career center for assistance. The CSI information related to Ari’s levels of certainty, satisfaction, and clarity provided some initial topics for discussion of Ari’s situation and the opportunity to explore these topics further with the assistance of a career counselor. Ari was pleased that she had made the decision to come to the career center and was hopeful that she could achieve a more positive career state as a result.

**Summary**
The career decision state (CDS) concept has consistently included the Occupational Alternatives Question (OAQ) and Satisfaction Item (Satisfaction with Choice Question) as measures of career certainty and satisfaction. However, in earlier studies career tension, career and life stress, SDS profile elevation and differentiation, and coping strategies were added to the conceptualization and measurement of the CDS. As presently operationalized, the CDS concept also includes a measure of vocational clarity, an indicator of one’s vocational self-confidence in pursuing a career goal as measured by three items from the MVS Vocational Identity Scale. Findings from these studies suggest that the three respective dimensions of the present Career State Inventory (CSI) are related to negative career thoughts as measured by the CTI and career and life stress, thus providing evidence of convergent and concurrent validity. Therefore, we suggest the use of the CSI as a readiness screening tool at the outset of career advising and counseling in order to examine career certainty, satisfaction, and clarity, as well as explore possible mental health issues associated with career choice. We provided three case studies to illustrate intentional use of the CSI in career counseling.

**References**


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APPENDIX

Figure 1. CSI Professional Version

Career State Inventory (CSI)*
Professional Version 7.0
Florida State University
Stephen J. Leierer, PhD; Gary W. Peterson, PhD;
Robert C. Reardon, PhD; Debra S. Osborn, PhD

Name_________________________________________________
Date_________________________

1. List all occupations you are considering right now.

________________________________________

2. How well satisfied are you with your responses to No. 1 above?
Place a check next to the appropriate statement below:

____ Very satisfied
____ Satisfied
____ Not sure
____ Dissatisfied
____ Very dissatisfied

Which occupation is your first choice? If undecided, write “undecided.”

________________________________________

2. How well satisfied are you with your responses to No. 1 above?
Place a check next to the appropriate statement below:

____ Very satisfied
____ Satisfied
____ Not sure
____ Dissatisfied
____ Very dissatisfied

3. Please circle True (T) or False (F) to the statements below
a. T F If I had to make an occupational choice right now, I’m afraid I would make a bad choice.
b. T F Making up my mind about a career has been a long and difficult problem for me.
c. T F I am confused about the whole problem of deciding on a career.

TOTAL (2 – 12)
Overall Career Decision State Profile

Total Scoring Range 2 – 12

<table>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tr>
<td>Confident</td>
<td>Tentative</td>
<td>Confused</td>
<td></td>
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</tr>
</tbody>
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Scoring Key

Certainty (1 – 4)
1 = First choice only
2 = First choice plus alternatives
3 = Alternatives only
4 = No options or blank

Satisfaction (1 – 5)
1 = Very satisfied, 2 = Satisfied, 3 = Not sure, 4 = Dissatisfied, 5 = Very dissatisfied

Clarity (0 – 3)
One point for each TRUE response. All FALSE = 0, All TRUE = 3.

Total Career Decision State (2 – 12)
CSI Total = Subtotal Certainty + Subtotal Satisfaction + Subtotal Clarity

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YOU SCIENCE APTITUDE ASSESSMENT MOVES CAREER SCIENCE BEYOND SELF-REPORT INTERESTS
by Rich Feller and Jenn Leard

Asking clients about their passions and “likes” dominates the vast majority of career interventions. Within comprehensive assessment programs, interests hold some value. Yet, new career science is moving beyond self-report interest-only interventions.

Rigorous and performance-based aptitude assessment greatly enhances client outcomes and new opportunities for career development professionals. Aptitude assessment results also expose experience-driven “exposure bias” which limits options by gender, race, economic status and geography. Utilizing advanced technology, YouScience is elevating the value and perception of career interventions. Its results significantly expand user access and add to the quality of career science. The Georgia Governor’s Office of Student Achievement (GOSA) conducted a third-party study of fifty-one Georgia high schools, finding statistically significant increases for students across all five measures of self-awareness, career-decision making, self-empowerment, career exploration, and intent to persist (Engleman, Mcklin, & Howell, 2016).

Approaching Career Assessment through Performance and Scale
A client calls, or more likely sends a text or email message. They ask for “the career assessment that tells me what I should be!” This common experience results from a troubling myth that career assessments can generate a singular and specific career option. In addition the career assessment field has been rather stagnant with only a few tools adding much to the science of career development. Very few tools reach large numbers of users, and YouScience appears to be the only new performance based tool that reaches such scale.

The role of assessment in supporting career interventions is to help clients learn about themselves, explore possibilities, and gain insights to navigate a lifetime of career transitions. Assessments purposefully selected and used with careful consideration of client need and intended outcome are a foundation of good practice. Purposeful and intentional assessment use is not only a best practice, but it is required as a guideline within the ethical underpinnings of the field. The National Career Development Association (NCDA) Code of Ethics specifically outlines in Section E, 2.b, “Appropriate Use” as a measure of competence, “Career professionals are responsible for the appropriate application, scoring, interpretation, and use of assessment instruments relevant to the needs of the client” (National Career Development Association, 2017, p. 13).
Career professionals also have a responsibility to help clients make informed decisions about their best career fit, utilizing reliable and valid assessment measures. “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” (Feller, Hardin, Cunningham, Whichard, & Long, 2014, p. 209).

There is a high cost for not knowing one’s natural talents and internal motivations, ultimately impacting how one adds value within satisfying work. With the traditional college experience taking longer and creating increasingly larger debt, career professionals are encouraged to examine more powerful tools to help accelerate exploration, identify natural and stable aptitudes, and improve career decision-making. With global “skills gap” concerns, progressive leaders understand that talents (aptitudes) are strong pre-requisites for efficiency in learning in-demand skills.

Many students with access to college’s incredible resources find themselves 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” (Hardin, YouScience, 2014, p.1). Efforts to bridge the disconnect should incorporate a triangulation of Access (making career development available for all), Quality of Student Outcomes (including career literacy and increasing effectiveness of decisions), and Cost of Program (evaluating student interactions with the education system as the consumer) (Feller, Long, & Mahoney, 2016). Purposeful and intentional selection of career services practices, including career assessment selection, can bridge the disconnect for students needing to be increasingly self-aware, more self-directed in learning, and ready to navigate a lifetime of transitions.

**Being Purposeful and Scientific about Aptitudes**

Why have aptitudes been left out of the career development conversation, when they are foundational within career development’s history? Has the present interest-centric nature of career counseling and development created a gap in comprehensive career efforts? In Frank Parsons’, the parent of vocational guidance, Trait and Factor Theory of Occupational Choice he defined individual traits as aptitudes, interests and personal abilities (Parsons, 1909). Aptitudes were foundational to Frank Parsons’ theory, yet their importance faded in both the literature and practice over time. “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),” (Feller et al., 2014, p. 209).

What are aptitudes? “Aptitudes are innate abilities, the result of inheritance and early development,” (Ryan Krane & Tirre, 2005). An individual’s assessment shows their relative aptitudes and where they can find competency and competitive advantage in the workplace. Knowing one’s aptitudes allows users to understand, articulate, and document examples of their “hidden gems” that come so easily to them that they overlook them as assets.

Why are aptitudes an important piece of the career development puzzle? Aptitudes help clients to be better prepared in their educational pursuits and career decision-making, allowing them to
identify rewarding work activities. “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),” (Feller et al., 2014, p. 209).

Aptitude assessment is about expanding career possibilities and helping clients to make informed decisions about roles in which they will best contribute; “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).

**Relationship Between Aptitudes and Interests: Overlooked Piece of the Puzzle**

Many “constellations of likes and disliked interests are manifested through the activities people pursue, objects they value, their topics of reading and conversation, and their patterns of behavior,” (Feller et al., 2014, p.211). Though interests have persisted as the most enduring construct within career development, and are an important piece of the self-knowledge puzzle, interest-centric and interest-only guidance is flawed. Interests are assessed through self-report, and are a product of exposure bias (Feller, 2017). A client’s exposure (or exposure-bias) to experiences, information, and environments limits or broadens self-reported interests. Despite the sophisticated technology of testing, self-report is the best source of information on interests (Seligman, 1994). Fortunately, recent career science and technological advances created by YouScience are challenging the impact of self-report interest assessments’ ability to identify user’s possibilities within high growth and high demand jobs.

**The Best FIT Model** illustrates the relationships among self-awareness, interests, and aptitudes (Figure 1), demonstrating a need for awareness of both aptitudes and interests in determining the best career FIT (Feller, 2014). Combined aptitude and interest assessment (with aptitude as performance measured and interests as self-report) draws upon both innate abilities and present self-reported interests.

**Understanding Aptitudes as a Social Justice Issue**

A challenge with the self-reported, interest-centric or interest-only approach to career development pervasive within theory, practice and training is that interests are significantly influenced (and often limited) by one’s economic and social capital. One’s geographic location, access to a range of experiences, access to learning tools and partners, and role models all impact the lens of career aspirations and available opportunities. There are inherent diversity challenges with interest-centric approaches, as interests are also influenced by gender, race, socioeconomic and geographic location within careers and jobs. If you do not see or identify with someone like yourself in a particular career path or field, then the messaging becomes, that path is not for me. Aptitude assessment works to level the opportunity structure by looking at internal, innate, stable natural abilities that are performance measured rather than self-reported. This practice broadens possibilities by increasing career options based on performance and potential to perform within the job. Self-reported interest data is most useful when connected to aptitude data. Aptitude assessment does not suggest that individuals cannot pursue certain jobs/work. Aptitude data connected to interest data can reveal best career FIT opportunities for finding career flow, performance, and satisfaction.
Figure 1: The Best FIT Model
The YouScience Solution
YouScience brings aptitudes front and center to the career development lexicon, helping students and clients to find their best career FIT at the intersection of what they do naturally well (aptitudes), what they presently love to do (interests), and what the job market needs (career opportunities). YouScience takes a holistic and comprehensive approach to assessing potential, looking at aptitudes, interest and personality as critical pieces of the self-knowledge and career development puzzle. The use of new technology assets and a proprietary algorithm allow YouScience to take a new form of career science to scale. Until now, aptitude assessment was very expensive and labor intensive, and only small numbers of clients could access them. YouScience, a consumer product much like other well-known and popular career tools, has no restrictions on who can purchase, take, and use the tool. Designed for those aged 14-adult, no special training is required to provide a “walk-through” of the YouScience results.

YouScience aptitude assessment is a career pathway and self-discovery program focused on helping to bridge the gap between exploration and informed decision-making for young adults navigating education and career choice. “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,” (Feller et al., 2014, p. 220-221). YouScience addresses this disconnect by providing an online multi-aptitude battery of “brain games” designed specifically to measure an individual’s capacity to perform a simulation of tasks required in a wide variety of educational and work settings.

YouScience is built upon over 90 years of research, offering a reliable and valid measure of aptitudes, aligning with satisfaction in school and work (YouScience, 2017). Aptitude research behind YouScience comes from the Ball Foundation in Chicago, IL, one of the premier developers of aptitude career products in the United States. The Human Resource Research Organization (HumRRO) supported the development of the career-matching algorithms. YouScience was built upon partnerships with leading firms, foundations and government support (YouScience, 2017).

The YouScience Program Provides Feedback On:
A). Aptitudes, broken down by “Core Drivers- the natural gifts that people feel driven to use; Personal Approach- identifying the role on a team that best suits you, the environment you likely prefer, and the means you naturally use to accomplish tasks and reach your goals; and Amplifiers (optional)- reflecting your ability to be quick and effective in some specialized ability areas, working more powerfully when paired with your other aptitudes.” (YouScience Assessment, 2017). Aptitudes are assessed within 14 subtests of Associative Memory, Sequential Reasoning, Visual Comparison Speed, Idea Generation, Inductive Reasoning, Hand-Eye Coordination, Visual Memory, Numerical Computation, Numerical Reasoning, Spatial Visualization, Vocabulary, Work Approach, Pattern Memory, and Timeframe Orientation. Interpersonal Style and an Interest Profiler are included as personality and interest surveys (YouScience, 2014).

B). Interests, utilizing the Holland RIASEC code to help students assess their interest levels in different types of work.
C). **Personality/Teamwork**, assessing personality and teamwork by looking at Work Approach (Generalist, Liaison, Specialist), Timeframe Orientation (Future Focuser, Balanced Focuser, Present Focuser), and Interpersonal Style (Introverted, Blended Energizer, Extrovert), to help students understand how they work on teams.

D). **Career Recommendations**, blending personal aptitude and interest data from over 500 career matches. YouScience helps filter by educational requirements, personal FIT type (overall, aptitude, or interest) while providing access to in-depth information about each potential career option.

E). **Language that Describes Users**, supporting networking, interviews, application materials and personal branding efforts. YouScience helps students gain new language that resonates with their sense of self and use articulated language to identify and pursue career and educational opportunities through the “Describing You” section.

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). A holistic approach to career assessment is critical to bridging the disconnect between interests shaped by exposure and aptitudes needed to learn skills that combine to make up a job. One without the other greatly influences the quality of career information needed to shape internal motivation driving student success.

**Administration and Walk Through of YouScience**

YouScience can be administered for both individuals and in group settings, and does not require certification or specialized training to implement into practice. The YouScience team provides access to training materials and resources for successful use and implementation. This means that individuals can utilize YouScience on their own as a consumer product, or (most likely) work with a parent, teacher, mentor or counselor/coach to take YouScience and make further meaning of their results. The YouScience system is set up in an easy-to-use and self-directed way to help users make meaning on their own and with varying levels of discovery with additional support.

For more in-depth walk-throughs, it is recommended to connect with a career counselor or coach, who has additional expertise in career assessment. YouScience expresses support for career counseling and coaching, stating, “The aptitude and interest assessments combined with the career and education information will give you a great foundation for discovery and decision making. However, they cannot replace the personalization and the specialized skills of a qualified career counselor. If you choose to engage a career counselor, your profile results are an excellent place to start,” (YouScience, 2017).

For administrators implementing YouScience into practice, an extensive resource library is provided to support successful administration and results walk-through, including:

- Introduction to YouScience
- Getting Your Clients Started
• Using YouScience with a Group
• YouScience Results Walk-Through
• Knowledge Base
• Communication Templates
• Student Engagement Resources
• Marketing Support
• Technical Requirements

Access to an online Organization Portal is provided for organizations administering YouScience for the populations they serve.

Case Studies - YouScience Enhances Self-Efficacy and Expands Career Opportunities

High School Implementation Case Example:
Augusta Preparatory Day School is an independent, nonsectarian day school located in Augusta, Georgia for students ages three years old to 12th grade; upper school student body enrollment is 220 students.

YouScience Introduction and Implementation: The Augusta college counseling office program model is to work alongside grade level advisers during students’ 9th and 10th grade years, and to work fully in partnership with 11th and 12th grade students. In order to prepare students to work more directly with the college counseling office, in the Fall of 2015 the Augusta team rolled out YouScience to all sophomores and juniors (with the vision to have all sophomores take YouScience in subsequent years).

Student Feedback: The college counselors had a few students bound through the door after receiving their results. For example, a junior male student walked into the office and exclaimed, “That YouScience thing is SO COOL!” He went on to share that his father, an anesthesiologist, had always told him that he should follow the same path because it made good money and “he could do it,” but the student never found it in his heart to tell his father that he was not at all interested in the field. He expressed that he felt a sense of relief that he wasn’t going to “disappoint” his father anymore because he had something to help him facilitate the conversation.

The college counseling office often experiences conversations with students struggling academically or feel they “have no idea what to do with their lives”. The YouScience intervention proves encouraging. Feeling behind academically, a star basketball player completed YouScience. When asked, “Where do you feel at your best? Fully present, firing on all cylinders, high on life?” , the student replied, “playing basketball.” It was eye-opening for the student to compare his aptitudes to his basketball game rather than school or a career. He uncovered that as a Visual Scanner, he has to quickly assess what’s happening on the court and where the next move will be made. He’s a Collaborative Planner who studies plays, prepares his team, and keeps them engaged: “You’re always aware of how parts fit into the whole, even in the heat of battle” (YouScience Assessment). Using his YouScience profile, he was able to understand his natural talents demonstrated in his passion for basketball—making his results and insights tangible.
YouScience has affirmed the core belief that helping students better understand themselves and what makes them “tick” allows us to better support and advocate as students journey through high school and beyond. YouScience introduces or reintroduces students to themselves. Students are told to go out and find their passion/follow their dreams, but a person’s worldview exists relative to their experience. For some, they have already traveled the world, but for most, they have a limited scope. They only know themselves within the context of what the media, and especially social media, their neighborhood, parents, and peers have offered. Too often, they are following others, either too afraid of or having no idea what path could lead to a greater sense of self, well-being and overall joy.

**Group Administration Case Example:**
A Colorado community college partnered with YouScience to help students discover their aptitudes, uncovering paths to education and career success. The lead community college decision-maker remarked on her team’s experience, “Thank you so very much for introducing us to YouScience. I honestly do not think we could possibly be more excited about the opportunity you have given us!” (Community College Decision-Maker, personal communication, October 6, 2016.)

In a two-part experience, 47 students were exposed to innovative insights about the changing workplace, impact of technology, and the YouScience program by a team of external consultants. Following completion of the YouScience assessment, students engaged in an interactive, self-discovery group walk through of their personalized. Group goals were set to (1) include seeing the power of aptitudes and their difference from interests and (2) to see how they were combined to recommend careers that might be enjoyed. Additionally, a senior career advisor reported two student experience outcomes. “One woman said it explained all the other assessment results she had taken in high school. She is in the process of researching some of the career suggestions that she dismissed prior to YouScience. She was visibly relieved by the career recommendations. She wrote that it was like the weight of the world was lifted from her,” and another “young women just told her mother last week that she wanted to go into criminal justice to be an investigator. YS strongly suggested investigation careers would be her best fit. She was thrilled to have data to show her family.”(Community College Decision-Maker, personal communication, October 6, 2016.)

**Educational Consultant Case Example:**
College MatchPoint (collegematchpoint.com) is an educational consulting practice that works with high school and college students across the country. Its consultants have used YouScience with more than 170 students, considering it a core step in their framework to make certain that their clients thrive in their selected college--and ultimately in their first career steps.

Two years ago, the practice began working with a female sophomore at a competitive public high school in a large urban school district. She had strong AP and Pre-AP class grades, with perfect scores in math and science courses. The student was excited about a career in STEM, with a great deal of passion for the importance of expanding the role of women in these disciplines. Her mother was very supportive of this career path, unique among her daughters but consistent with her husband’s family.
The discussion of her YouScience results helped frame her aptitudes, highlighting many of the natural gifts she possessed. She is particularly strong at spatial visualization, or the ability to look at a two-dimensional figure and visualize what it would look like expanded into three dimensions. The results confirmed she is quick to spot patterns among numbers, adept at identifying trends in statistics or financial data. Somewhat surprisingly, the results also indicated that the student is very high on what YouScience calls an Enterprising interest, indicating a match for careers that value competition, persuasion and high energy.

In the fall of her junior year, the student experienced a significant shift in her anticipated major and potential careers. She expressed a tremendous amount of anxiety that her college search was “ruined” and that she would not be the successful daughter her family had hoped for. In a session with the student, we re-visited her YouScience results, discussing them as natural gifts rather than direct pathways to specific areas of expertise. We walked through some of the careers outside of STEM that matched her aptitudes, with a focus on harnessing her enterprising spirit. Towards the end of the session, the student began to shift her focus to finance and data analysis. These areas are a strong match for her aptitudes in spatial visualization and numerical reasoning.

In their work with students, College MatchPoint focuses on managing the balance between matching students with their best fit college and the stress that often goes with the admissions process. YouScience plays a crucial role in this work, encouraging self-discovery and providing more confidence in post-secondary choices. With this young woman, a pivot in her anticipated college major and career path was guided by a focus on her abilities, talents, and gifts.

**Concluding Thoughts**
This article provides an overview of the power of assessing aptitudes. Career science has exposed the influence of an “exposure bias” and is moving beyond self-reported interests. Changing needs for career assessment have encouraged the use of technology, and better career science is creating better information to drive career decision-making. Three use cases of interventions driven by YouScience’s aptitude assessment were provided to illustrate impact and the scale. The three cases lead to six thought-provoking “What if?” questions that suggest change within the career development and assessment space. These questions suggest a brighter future for systems working to delivering career and workforce needs:

1. What if high schools tapped into internal motivation and found opportunities to engage students in deeper reflection about their natural and re-occurring success experiences?
2. What if career interventions offered recommendations based on performance measured aptitudes rather than just self-reported interests?
3. What if career interventions utilized technology to scale new forms of career science to increase access to career development around the globe?
4. What if aptitude assessment served as an intervention to promote social justice by broadening exposure and increasing career aspirations?
5. What if stronger employer, government, and policy maker partnerships promoted the use of aptitude assessment to enhance youth opportunities and expand the talent pipeline to high growth and high demand opportunities?
6. What if aptitude assessment could be used to identify “hidden talent” for candidates consider-
ing apprenticeships, internships, CTE as well as those needed to fill the talent pipeline within local communities?

Claudio Fernandez-Araoz, in the Harvard Business Review (2014, June), notes the “answer is potential: the ability to adapt to and grow into increasingly complex roles and environments.” He calls our present time “a new era of talent spotting-one in which our evaluations of one another are based not on brawn, brains, experience, or competencies, but on potential.” As potential trumps brains, experience, and competencies it is important to promote “the case for the criticality of uncovering potential to add value as our best and most natural selves,” (Feller et al., 2014, p.222). This article supports bringing aptitude language to the career development field. It advocates for performance measured aptitude assessment during a time when so many tools purport to identify career fit. As career development needs are expanding and resources are stable at best, the use of scalable technology to assess and report aptitudes to advance self-awareness is worthy and wise. Identifying best career FIT recommendations that go beyond self-report interest assessment is essential, now that career science can uncover a client’s natural and stable aptitudes.

References:


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BEST PRACTICES FOR SELECTING, ADMINISTERING, AND INTERPRETING CAREER ASSESSMENTS: A Case Study with the Work Values Inventory
by Jennifer A. Greene and Melissa A. Messer

Abstract
Work values reflect specific preferences for work environments that are important to a person’s satisfaction with their job. Work values are often measured using work values assessments. Many work values assessments are based on the Theory of Work Adjustment and/or the O*NET content model which includes six constructs: Achievement, Independence, Support, Relationships, Working Conditions, and Recognition. Given the number of work values assessments available, it is important to examine several aspects of an instrument when selecting it for use with clients. Pertinent factors to consider when selecting an instrument include availability of test documentation, test development procedures, reliability, validity, and the standardization sample. To illustrate these factors, the most recently published work values assessment, the Work Values Inventory, is discussed. Guidelines for administering and scoring work values assessments, as well as steps to interpretation and an illustrative case example are provided. Training activities to ensure the highest possible level of professional understanding are recommended.

Work Values
Work values can be described as a set of standards that determine an individual’s attitude, choices, and actions related to the workplace. These values reflect specific preferences for work environments that are important to a person’s satisfaction with his or her job. By understanding a client’s work values, career counselors and professionals can better identify career opportunities that may be a good fit for them.

The idea of “work values” was first proposed by Dawis, England, Lofquist, and Weiss in 1964, and their 1984 book, Psychological Theory of Work Adjustment: An Individual Differences Model and its Applications, provided a framework for individual occupational needs. This work came to be known as the Theory of Work Adjustment. Further work by Rounds, Henly, Dawis, Lofquist, and Weiss (1981) expanded the theory and outlined 20 vocational needs, along with six underlying values: Achievement, Comfort, Status, Altruism, Safety, and Autonomy.

Work Values and the Occupational Network (O*NET)

The Department of Labor’s Occupational Information Network (O*NET) website (http://www.onetonline.org/) provides an occupational classification system and a database of occupational information available to the public. As the landscape of work and the labor market are constantly
changing, the O*NET provides continually updated information for more than 900 occupations in an easily searchable Web-based format. The information provided by the O*NET is organized into six broad domains, represented by the O*NET Content Model framework, shown in Figure 1 (O*NET, 2017; https://www.onetcenter.org/content.html). Three of these domains are worker oriented (i.e., worker characteristics, worker requirements, and experience requirements) and three domains are job oriented (i.e., occupational requirements, workforce characteristics, and occupation-specific information).

**Figure 1. O*NET Content Model.** From the O*NET Resource Center, Occupational Information Network, 2017. Retrieved from www.onetcenter.org/content.html. Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the Work Values Inventory (WVI) by Melissa A. Messer, MHS, and Jennifer Greene, MSPH, Copyright 2016 by PAR, Inc. Further reproduction is prohibited without permission of PAR, Inc.

Within the worker characteristics domain are four descriptors: abilities, occupational interests, work styles, and work values (O*NET, 2017). The current work values model used by O*NET includes six constructs related to the Theory of Work Adjustment: Achievement, Independence, Support, Relationships, Working Conditions, and Recognition. Using this model, each occupation in the O*NET database has been assigned the top three related work values. See Rounds, Armstrong, Liao, Lewis, and Rivkin (2008) for more information about the assignment process.

**Assessing Work Values**

The O*NET provides valuable information regarding which work values are associated with occupations. However, to match an individual’s work values with those associated with occupations, career counselors and professionals can use standardized assessments. There are several practical applications for the assessment of work values. For job-seekers, understanding individual workplace needs provides important information for making career decisions. Understanding work values allows career development practitioners to assist clients and students with learning more about their unique set of vocational needs/values and how those relate to their workplace expectations. By evaluating an individual’s vocational needs, practitioners can help their clients identify work environments and occupations that will be most appropriate, which, ideally, will lead to the greatest level of job satisfaction for clients.

**Selecting a Work Values Assessment**

There are many work values inventories available, such as the Super Work Values Inventory (Super, 1973), Minnesota Importance Questionnaire (Rounds et al., 1981), the Values Scale (Langley, Du Toit, & Herbst, 1992), the Work Importance Locator and Work Importance Profiler (McCloy et al., 1999), the Work Motivation Scale (WMS; Brady, 2008) and most recently, the Work Values Inventory (WVI; Messer & Greene, 2016b). Please note this list is not exhaustive, but is intended to give an overview of the available measures. Given the number of work values assessments available, it is important to examine several aspects of an instrument when selecting it for use with clients.
Figure 1. O*NET Content Model.
In the next section, we will review pertinent factors to consider when selecting an instrument. Many of these factors are derived from the collaborative publication Standards for Educational and Psychological Testing (a.k.a. the Standards; American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014), which is considered a gold standard publication by test developers. It includes guidelines for the development of new and revised tests, such as the test design and development of normative scores, as well as guidelines for establishing the reliability and validity of such measures.

In addition to guidelines outlined in the Standards, both the National Career Development Association (NCDA) and the American Counseling Association (ACA) provide their members with ethical guidelines to define professional behavior with specific sections dedicated to the use of assessments (ACA, 2014; NCDA, 2015). Section E of both ethics codes establish ethical guidelines related to Evaluation, Assessment, and Interpretation. Of particular interest is Section E.6: Instrument Selection, which states that "career professionals/counselors should carefully consider the validity, reliability, psychometric limitations, and appropriateness of instruments when selecting assessments and, when possible, use multiple forms of assessment, data, and/or instruments in forming conclusions, diagnoses, or recommendations" (ACA, 2014, p. 11; NCDA, 2015, p. 14). Thus, adherence to best practices in career counseling begins with the purposeful selection of assessments.

**Documentation**

According to the Standards, test developers should provide supporting documentation for tests including (but not limited to) guidelines for appropriate use, a description of test development procedures, and detailed test administration and scoring criteria (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014). Test documentation is important so that users can make informed decisions about selecting tests to use for a specific purpose. Test documentation also informs the user how to administer and score the test, as well as interpret the results. All test documentation should be complete, accurate, and easy to understand. The NCDA and ACA Codes of Ethics urge caution when interpreting results from assessments with insufficient documentation (see Section E.9.b Research Instruments or Section E.9.b Instruments with Insufficient Empirical Data in the NCDA and ACA Codes of Ethics, respectively.) For more information about needed supporting documentation, see Chapter 7: Supporting Documentation for Tests of the Standards (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014, p. 123-129).

**Test Development Procedures**

The Standards specifies that tests should be developed in a way that supports the validity of interpretations drawn from the test scores. The development procedures should be well-documented, include item development and review/revision procedures, information about the samples on which the test was standardized, and evidence of reliability and validity of the test scores. Professionals should be wary of tests that don't provide such information as there is no way to tell how they were developed and no evidence that they produce reliable and valid results.

**Other Important Factors to Consider**

There are several other factors to consider when selecting a work values assessment. One of
these is the length of the instrument, as the number of items on values assessments can range widely. The length can impact the test taker's engagement with the assessment and ultimately impact the validity of results. The reading level of the assessment is another important consideration. Review the test documentation for this information and select assessments that are appropriate for the age and education level of typical clients. In addition, ensure that the assessment is current. For example, if the instrument has more than one version, make sure to use the most recent revision. See Section E.11 Obsolete Assessments and Outdated Results of the NCDA and ACA Codes of Ethics for more information.

It is also important to consider the mode of administration. Some inventories can be taken and scored online, others are only available as paper-and-pencil forms, and some are offered in both modalities. Certain clients may prefer to take tests online, while others may prefer paper-and-pencil. Some important considerations when using online assessments include ability to work with accessibility software and equipment/software requirements (e.g., screen size, browser version). Finally, although the price of the instrument is an important factor to consider, a cost-benefit analysis of price against the other important factors outlined in this paper (such as reliability and validity) should be considered when making a decision.

Administering, Scoring, and Interpreting Values Assessments

Once an assessment is selected, care should be taken when administering and scoring it. It should be completed by individuals who want to explore occupations and understand their values as they relate to workplace personality. Most assessments can be self-scored or scored by a professional. The process of scoring one’s own assessment allows the test taker to be an active participant in the assessment process; the test taker begins to understand the constructs that are helpful in making career decisions or in thinking about career difficulties. However, there may be situations where it is more appropriate for a professional to score and interpret the results.

In terms of interpretation, the first step may involve examining each of the total scale scores for each work value. It is helpful for professionals to review the descriptions of these scales and focus on what each score indicates about the client’s specific values or preferences. In addition, the O*NET, can be used to explore occupations based on the client’s identified top work values. Refer to section E.7 Conditions of Assessment Administration and E.9 Scoring and Interpretation of Assessments of the NCDA and ACA Codes of Ethics for more information about the ethical guidelines surrounding administration, scoring, and interpretation of work values assessments. The next section provides a case example to illustrate how work values assessments, specifically the Work Values Inventory (Messer & Greene, 2016b) can be used to help clients make career decisions.

The Work Values Inventory

The following section will describe the most recently published work values assessment, the Work Values Inventory (Messer & Greene, 2016b) through the lens of the Standards recommended guidelines, as well as the ethical considerations described in the NCDA and ACA Codes of Ethics. The WVI consists of 60 items within six sections (Achievement, Independence, Support, Relationships, Working Conditions, and Recognition). It takes approximately 10 minutes to complete and 5 minutes to score. Each item begins with the item stem "In a job, I value the
opportunity to…” and asks individuals to endorse the statement as Not Valued (NV), Somewhat Valued (SV), Highly Valued (HV), or Very Highly Valued (VHV). Each construct is composed of two facets. See Figure 2 for a description of the constructs and facets.

**Figure 2. Work Values Inventory Scales and Facets.** Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the Work Values Inventory (WVI) by Melissa A. Messer, MHS, and Jennifer Greene, MSPH, Copyright 2016 by PAR, Inc. Further reproduction is prohibited without permission of PAR, Inc.

Three components make up the WVI: the Assessment Booklet, the Score Summary Sheet, and the Occupations Index. The WVI Assessment Booklet contains the WVI items and is designed for use by individuals who are taking the WVI to explore career options on their own or with a professional. The WVI Occupations Index (Messer & Greene, 2016a) includes more than 1,300 occupations organized by highest-rated work value. Within each work value, occupations are listed alphabetically by required education level. For each occupation, the associated work values and corresponding O*NET code are also provided. The WVI Score Summary Sheet is a two-sided sheet for scoring and organizing the work values of a client, designed for use by a professional.

**Documentation**
Documentation for the WVI is provided by the WVI Professional Manual (Messer & Greene, 2016b), which contains information about the development, reliability, validity, administration, scoring, and interpretation of the WVI. In addition, the WVI Assessment Booklet provides detailed instructions for taking and scoring the assessment, an overview of each work value, and a list of websites that offer additional career exploration and planning. It guides users to the O*NET to investigate matches between work values identified by the WVI and the O*NET. The WVI Occupations Index provides detailed instructions to help individuals identify potential occupations associated their highest-rated work values derived from the WVI Assessment Booklet.

**Test Development Procedures**
Using O*NET’s content model as a guide, each construct of the WVI was defined by two facets (see Figure 2 for a description of the scales and facets). For each facet, 8 to 10 items were originally written, for a total of 16 to 20 items per construct and 104 items overall. This was done to ensure adequate content coverage for both facets within each construct. Changes were made to some items based on an expert panel rating of the quality of each item. Next, the items were administered to the standardization sample, a nationally-representative sample of adults, ages 18 to 70 years (N = 526). The sample was closely matched to the U.S. population according to gender and race/ethnicity. Approximately half the sample was male, and the sample was racially and ethnically diverse. A wide range of education levels and occupations were represented. After standardization, the data were analyzed in terms of internal consistency and item endorsement rates. Poorly performing items were deleted to create the final, 60-item version, of the WVI.

In terms of reliability, internal consistency coefficients of the scales were generally high, ranging from .81 to .94 across all age groups. The test-retest reliability for the scales ranged from .82
Figure 2. Work Values Inventory Scales and Facets

<table>
<thead>
<tr>
<th>Achievement</th>
<th>Ability Utilization</th>
<th>Making use of individual abilities, developing skills, and improving performance.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accomplishment</td>
<td>Deriving a sense of accomplishment from completing tasks and meeting goals.</td>
</tr>
<tr>
<td>Independence</td>
<td>Autonomy</td>
<td>Completing work with little supervision and working on tasks that require little oversight.</td>
</tr>
<tr>
<td></td>
<td>Responsibility</td>
<td>Taking responsibility for one’s work and playing a role in planning work tasks.</td>
</tr>
<tr>
<td>Support</td>
<td>Organization Policies and Practices</td>
<td>Working in a supportive environment, where everyone is treated fairly by the organization, and the organization is sensitive to the needs of its employees.</td>
</tr>
<tr>
<td></td>
<td>Supervision</td>
<td>Working with a supervisor who is sensitive to the employee’s needs and provides constructive feedback, guidance, and training.</td>
</tr>
<tr>
<td>Relationships</td>
<td>Interpersonal Relationships</td>
<td>Working in a warm, friendly environment and having good relationships with coworkers.</td>
</tr>
<tr>
<td></td>
<td>Collaborative Environment</td>
<td>Working in a collaborative environment where people work as a cohesive team to complete tasks.</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>Activity/Variety</td>
<td>Working in a fast-paced environment with a variety of work tasks.</td>
</tr>
<tr>
<td></td>
<td>Security</td>
<td>Having employment with a stable organization and predictable compensation.</td>
</tr>
<tr>
<td>Recognition</td>
<td>Acknowledgment</td>
<td>Being recognized for good performance through formal and informal means.</td>
</tr>
<tr>
<td></td>
<td>Leadership/Influence</td>
<td>Having potential for positions of leadership or being an influential member of the organization.</td>
</tr>
</tbody>
</table>
to .95. Validity was assessed by administering several related measures concurrently with the WVI, including the Self-Directed Search, 5th Edition (SDS; Holland & Messer, 2013), the NEO Personality Inventory-3 (NEO-PI-3; McCrae and Costa, 2010), the Working Styles Assessment (WSA; Messer & Ureksoy, 2014) and the Test of General Reasoning Ability (TOGRA; Reynolds, 2014). Correlations were moderate and in the expected direction. In addition, the intercorrelations for the work value scales were analyzed. All work values scales were significantly correlated, with intercorrelations between the scales ranging from .46 to .72, suggesting that the scales measure related, but distinct, work values.

Other Important Factors to Consider
At 60 items, the WVI is quick to administer to clients. At the same time, each scale consists of 10 items, ensuring adequate content coverage. The Professional Manual notes that the items are written at a seventh-grade reading level according to the Flesch-Kincaid readability formula (Flesch, 1948). Therefore, individuals with a middle school education level or higher should have little or no difficulty completing the assessment. In addition, the WVI was published in 2016, using data collected shortly before publication. The WVI is only available as a paper-and-pencil form, and so may be less engaging to some users. At the time of this publication, a WVI kit (includes the Professional Manual and forms for 25 administrations) costs $145, for a cost of $5.80 per client and is available through Psychological Assessment Resources (www4.parinc.com). The WVI provides much value for a low cost per client, given the reliability, validity, and recency of its publication.

Case Example
Julia is a 26-year-old client, identifying as female, who recently graduated college with a bachelor’s degree in creative writing. She had trouble finding a full-time job in her field, eventually landing a job as a cashier at a local bookstore. While working at the bookstore, she continued writing as a hobby. After several years, she was promoted to store manager, but was not satisfied in this position. Feeling she should assess her occupational options, she decided to visit a career counselor. The career counselor asked Julia to take the WVI and her top three work values were Achievement, Support, and Relationships. The career counselor first discussed Julia's current job as a store manager to try to identify the source of her dissatisfaction. During this discussion, Julia and the career counselor looked up "retail store manager" in the WVI Occupations Index, and noted that the top three values associated with it were Independence, Relationships, and Support. During their subsequent discussion, Julia acknowledged that her dissatisfaction was likely explained by the lack of agreement between her job's top work value and her own. As a store manager, Julia was often expected to act independently, take responsibility, and make decisions that affected her employees. However, she valued a more collaborative environment that would allow her to use her abilities to their fullest and feel a sense of accomplishment from a job well done.

Next, the career counselor suggested that Julia use the WVI Occupations Index to explore occupations associated with her highest work value of Achievement. While scanning the list, one of the occupations, copywriter, caught Julia’s eye. Based on the associated work values, (Achievement, Support, and Working Conditions), Julia felt that the copywriter occupation may be a better fit for her. She decided to begin looking for a position while taking courses in marketing at a local university to supplement her writing skills with content area knowledge.
Professional Training for Interpreting Values Assessments

Although many work values assessments can be self-administered and self-interpreted by most people, professionals should monitor their use, correct errors in scoring, and help individuals when they have difficulty completing an assessment or interpreting the results. The monitoring practitioner should be a psychologist, career counselor, career development specialist, or human resources specialist who understands measurement theory.

As outlined in Section E.2 of the NCDA and ACA Codes of Ethics, professionals should only use assessments for which they have been trained and are competent in administering and interpreting. To obtain the appropriate training, it is recommended to read any test documentation provided, such as a technical manual, professional manual, administration and scoring instructions, in its entirety. In addition, below is a list of activities that can assist with ensuring the highest possible level of professional understanding:

1. Familiarize yourself with the descriptions of the each scale/domain/facet of the assessment.

2. Review the O*NET Content Model (https://www.onetcenter.org/content.html) to understand how work values fit into the overall categorization of occupational information.

3. Take the work values assessment yourself and calculate your scores. Review the results and consider the accuracy of the results and any difficulties that were encountered while taking the assessment.

4. Look up your current occupation using the O*NET. Compare your top work values associated with that occupation and compare that to the results obtained on the work values assessment you took in step 3.

5. Compare the results of this assessment with the results of other assessments of your interests, skills, talents, and work experience.

6. Take the work values assessment again in three to four weeks and note the similarities and differences between your responses.

7. Administer the work values assessment to several people; discuss the results with them, and attempt to answer their questions.

8. Give the work values assessment to a few people in the population with whom you plan to work.

9. Discuss your experiences with other experienced professionals in your field.

Conclusion

As with any assessment tool, it is important to examine several aspects of an instrument when selecting it for use with clients. Most importantly, assessments should be designed in accordance with the guidelines described in the Standards. Care should be taken when administering and interpreting an assessment to ensure procedures are aligned with the ethical obligations outlined
in a professional’s ethical guidelines (e.g. the NCDA and ACA Codes of Ethics). Work values are an important aspect of an individual's workplace profile that may be considered when engaging with clients in a career counseling or advising context. Work values assessments represent helpful tools to assist clients in identifying meaningful and satisfying occupations. However, as work values are only one aspect of an individual's workplace profile, work values assessments can (and should) be used in conjunction with other measures of workplace aspects, such as interests and personality, to gain a more complete picture of the client. Moreover, the O*NET and other career resources can be used to learn more about identified occupations of interest. It is important to keep in mind that no single resource or assessment can provide clients with one “right” choice of occupation, but using appropriate career assessments can help generate options more likely to result in satisfaction.

**References**


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THE CAREER THOUGHTS INVENTORY (CTI) AND CTI WORKBOOK: A Purposeful Integration of Theory, Research, and Practice in Career Assessment and Intervention
by Amanda C. Sargent and Janet G. Lenz

Why Consider Integration of Theory, Research, and Practice in Career Assessment?
Professional associations for career practitioners and counselors, such as the National Career Development Association (NCDA), National Association of Colleges and Employers (NACE), and the American Counseling Association (ACA), have created ethical codes to guide practice and ensure clients’ safety. The standards in these ethical codes inform various aspects of service delivery and each code contains a section related to the responsible and ethical use of assessments. Ethical codes emphasize the importance of selecting valid, reliable, and appropriate assessments for clients; attending to multicultural influences on the assessment process; and responsible administration and interpretation. The information contained within the assessment sections of ethical codes help practitioners understand best practice for using career assessments. However, some career practitioners, depending on their professional affiliation, credentials, and level of training, may still feel some uncertainty and lack confidence when trying to decide which assessments to use. This situation is exacerbated by the wide variety of career-related assessments available (Osborn & Zunker, 2015; Wood & Hays, 2013). One way to distinguish strong assessment choices is to evaluate the degree to which assessments integrate theory, research, and practice.

Counseling and psychology training programs have long taught students that using a theory to guide service delivery is best practice (Sampson, Bullock-Yowell, Dozier, Osborn, & Lenz, 2017). Other non-counseling career practitioner training programs, such as the Global Career Development Facilitator training from the Center for Credentialing and Education, also emphasize the need to know and understand career development theory to inform practice (Suddarth & Reile, 2012). Career development scholars have further asserted that using career development theories in practice helps career practitioners better design and understand the possible outcomes of their interventions (Sampson et al., 2017; Zunker, 2015) and that career practitioners should use career assessments that fit with their theory of choice (Osborn & Zunker, 2015). Theoretical frameworks help practitioners in conceptualizing client problems and determining appropriate courses of actions/interventions to use in the helping process (Niles & Bowlsbey, 2016). Furthermore, in a world where evidence-based practice is becoming the norm, practitioners can have more confidence in their choice of interventions when the theory, assessments, and resources used are research-supported (Rottinghaus, 2017). This article presents the Career Thoughts
Inventory (CTI) and its accompanying CTI Workbook as tools that successfully integrate theory, research, and practice in career service delivery.

**Cognitive Information Processing Theory**

Prior to using any career assessment, it is important to consider the theory on which it is based (if any). The Career Thoughts Inventory (CTI) is an assessment tool based in cognitive information processing (CIP) theory (Sampson, Peterson, Reardon, Lenz, & Saunders, 1996a). The CIP theory-based approach aims “…to help persons make an appropriate current career choice and, while doing so, to learn improved problem-solving and decision-making skills that they will need for future choices.” (Sampson, Reardon, Peterson, & Lenz, 2004, p. 2). Key elements of CIP theory, which guide career counseling and services interventions, are the Pyramid of Information Processing (Appendix A), representing what is involved in a career choice, and a five-step decision-making model called the CASVE (pronounced “kah-SAH-vee”) cycle (Appendix B). Building on the work of cognitive psychologist Aaron Beck (1976), CIP theory includes a focus on dysfunctional or negative thinking (Sampson et al., 2004). CIP theory encourages practitioners to explore clients’ negative career thoughts in the context of the Pyramid of Information Processing and CASVE cycle to help them overcome cognitive barriers to career problem solving and decision making. The cognitive restructuring process is commonly referred to as "reframing" and occurs in four steps: identifying, challenging, and altering negative thoughts to create new thoughts which will enable individuals to take positive career actions going forward (Sampson, et al., 2004). CIP theory also advocates for inclusion of the emotional experiences accompanying career problems and decisions in the career helping process (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b; Sampson et al., 2004).

Examples of meaningful CIP-related discussions from the literature include using CIP in career service delivery settings in the US and abroad (Hughes, in press; Kronholz, 2015; Lenz & Osborn, 2017; Sampson, Watts, Palmer, & Hughes, 2000), connecting career and mental health counseling with CIP theory and tools (Dozier, Lenz, & Freeman, 2016; Lenz, Peterson, Reardon, & Saunders, 2010; Saunders, Peterson, Sampson, & Reardon, 2000), and applying CIP theory when working with unique client populations (Buzzetta, Hayden, & Ledwith, 2017; Hirschi & Lage, 2008; McLennan & Arthur, 1999; Rodriguez, 2012). Additional research has been conducted examining CIP theory and its applications, the breadth of which will not be reviewed in this article due to space limitations, however, a bibliography of publications may be accessed at: career.fsu.edu/sites/g/files/upcbnu746/files/20170323CIPBibliography.pdf.

**Overview of the Career Thoughts Inventory (CTI)**

In addition to understanding an assessment’s theory base, another important aspect of responsible assessment selection, administration, and interpretation, is thorough knowledge of the assessment’s function, components, intended uses, and research support. Below is a brief overview of the Career Thoughts Inventory (CTI) in layperson’s terms intended to facilitate basic understanding of the instrument and how it is used in practice. The authors advise practitioners intending to use the CTI to thoroughly read the Career Thoughts Inventory Professional Manual (Sampson et al., 1996b) prior to administering the assessment to gain more comprehensive knowledge regarding validity, reliability, standardization, constructs, administration procedures, interpretation methods, etc. Practitioners should also be mindful of their own training and scope of practice.
when deciding if they possess the professional competency required to use the CTI.

**Intended Uses.**
The CTI is a “theory-based assessment” (Sampson et al., 1996b, p.1) that draws from cognitive therapy and uses CIP theory as its career-related theoretical base. While its primary intended use is in direct career services delivery to clients, it may also be used as a “screening measure,” a “needs assessment” to determine career readiness (Sampson, McClain, Musch, & Reardon, 2013; Bullock-Yowell, Saunders, & Peterson, 2015) and “define the problem space” in the Pyramid of Information Processing, a “learning resource,” and a “research/evaluation tool” (Sampson et al., 1996b, p.1-2). The CTI’s versatility allows practitioners to use it in a variety of ways to accomplish different types of goals with clients and/or to evaluate services.

**Design.**
The CTI is a 48-item inventory of common negative career thoughts (dysfunctional cognitions) that serve as barriers to career problem solving and decision-making. Four response options are presented on a Likert Scale: strongly disagree, disagree, agree, strongly agree. The answer sheet is two pages long and printed on carbon paper so that responses may be recorded and directly transferred onto the score sheet without the assessment taker seeing the scoring categories or values associated with each item. Practitioners can then immediately and quickly score the assessment by hand. The CTI includes a total score as well as scores for three construct scales: Decision Making Confusion (DMC; difficulty with the decision-making process due to disabling emotions and/or lack of understanding about the process), Commitment Anxiety (CA; reflects anxiety around committing to a choice, as well as concern about the outcome of choices), and External Conflict (EC: difficulty with balancing decision making input from important people or other outside influences). Sample items from each scale include: “I get so depressed about choosing a field of study or occupation that I can’t get started” (DMC); I worry a great deal about choosing the right field of study or occupation” (CA); “Whenever I become interested in something, important people in my life disapprove” (EC). Observing scores for each construct scale, as well as scores on specific items from these scales, can help practitioners understand where to focus in designing appropriate client interventions. More in-depth descriptions of the CTI’s construct scales can be found in the Career Thoughts Inventory Professional Manual (Sampson et al., 1996b, p. 28-29).

**Administration.**
Practitioners should adhere to the professional and ethical guidelines related to assessment administration and interpretation according to the standards in their field(s). The developers recommend that practitioners ask clients to read the introductory paragraph with the directions and then address any questions clients might have (Sampson et al., 1996b, p. 22). Clients are asked to respond to each item by circling the option that best indicates their level of agreement with each statement. If clients change their mind, they may put an “X” through the first choice and circle their new choice. Noticing changed answers and inquiring about the change may facilitate greater understanding of clients’ thoughts and feelings around particular items.

**Scoring.**
In completing the CTI, clients may identify negative career thoughts that are most impeding their
progress toward a career goal. Response values (0-3) are summed to determine a CTI total score (sum of all values) and totals for the three construct scales described above. The final 4 totals (CTI Total, Decision-Making Confusion Total, Commitment Anxiety Total, and External Conflict Total) are then mapped onto the appropriate profile (Adult, College Student, or High School Student) on the back of the assessment. Profiles present negative career thinking levels from low to high, with each level increasing in shade intensity to indicate a greater amount of negative career thoughts.

**Interpretation.**
The CTI can be interpreted using the CTI Total score, construct scale scores, and at the individual item level to help clients identify, challenge, and alter their dysfunctional career thoughts (Sampson et al., 1996b). People with higher CTI scores tend to have more pervasive negative thinking and may struggle with one or more career-related problems such as vocational identity issues, feelings of uncertainty around their choices, indecisiveness, negative emotional experience/affect, and negative self-perceptions related to career decision making and problem solving (Bullock-Yowell et al., 2015; Sampson et al., 1996b). More discussion on interpretation will be provided in the translating theory to practice section later in this article.

**Research.**
Along with the research on CIP theory, numerous studies have been conducted using the CTI. Researchers have used the instrument to assess dysfunctional thinking of people from different cultures/ethnicities (Bjornsdottir & Kardal, 2010; Dipeolu, Sniatecki, Storlie, & Hargrave, 2013; Lerkkanen, Sampson & Konttinen, 2012) and other special populations (Fowler, 2012; Freeman, 2017). Combining the CTI with other career or mental health assessments to explore the emotional and personality-related aspects of career development is another interesting area of current and suggested future research (Dieringer, Lenz, Hayden, & Peterson, 2017; Finklea, 2016). To view a comprehensive bibliography of CIP and CTI-related publications visit: http://career.fsu.edu/sites/g/files/upcbnu746/files/20170323CIPBibliography.pdf.

**The CTI Workbook**
Improving Your Career Thoughts: A Workbook for the Career Thoughts Inventory (commonly referred to as “The CTI Workbook”) was developed in conjunction with the CTI assessment and also employs CIP theory as a foundation (Sampson et al., 1996b). As the title implies, the workbook contains both readings and exercises intended to help people “interpret their CTI scores and complete the cognitive restructuring action planning, and learning necessary to effectively engage in exploratory, problem solving, and decision making behaviors” (Sampson et al., 1996b, p. 15). The workbook consists of seven sections including an introduction and a conclusion that guide clients through reframing their negative career thoughts by following a step-by-step “identify, alter, challenge, act” process (Sampson et al., 1996b, p. 16). Descriptions of the three CTI constructs (Decision-Making Confusion, Commitment Anxiety, and External Conflict) and visual representations of both the Pyramid of Information Processing and the CASVE Cycle are also provided inside the workbook. While some clients may be able to complete the workbook mostly on their own, clients with higher CTI scores will likely require more participation and guidance from their career practitioner (Sampson et al., 1996b, p. 15-16). In terms of research support, the CTI Workbook has been found to assist clients in reframing and reducing their level
of negative career thoughts (Carr, 2004; Strohm, 2008; Thrift, Ulloa-Heath, Reardon, & Peterson, 2012).

Using the CTI and CTI Workbook to Translate Theory to Practice
There are several ways the CTI and CTI Workbook facilitate the integration of theory and practice through their design, as well as in the administration, interpretation, and implementation process. By simply giving the assessment and using the CTI Workbook, practitioners are passively participating in the translation of theory to practice. Both instruments are founded on the assumption that negative thinking contributes to difficulty with career problem solving and decision making, a concept associated with both cognitive therapy and with CIP theory (Beck, 1976, 2005; Sampson et al., 2004). There are many additional ways, however, career practitioners can actively participate in the translation process using the CTI and CTI Workbook, three examples of which are provided below.

Conceptualization and Service Planning Example.
Practitioners may conceptualize their clients using the Pyramid of Information Processing and CASVE Cycle visuals provided in the CTI Workbook. As negative career thoughts are identified through clients’ endorsed CTI items, practitioners can examine in which Pyramid domain and/or CASVE cycle phase one or more of the negative thoughts might be serving as barriers to clients’ career problem solving. For example, clients who strongly agree with item #6 of the CTI, “The views of important people in my life interfere with choosing a study or occupation,” may be experiencing challenges in career decision making due to external conflict as Item #6 is specifically associated with the External Conflict (EC) construct. Endorsement of this item would serve as an indicator that the practitioner should further inquire about important other people or external influences in a client’s life. Practitioners might also consider how external conflict, and this particular negative thought, may be affecting clients’ personal Pyramid of Information Processing and/or CASVE Cycle. Perhaps this thought is affecting the values portion of self-knowledge (lower left corner of the Pyramid) because it is hard to distinguish between their own values and the values of important others. Another possibility may be that clients with high EC scores are struggling with the CASVE Cycle’s Valuing (V) phase because they are receiving strong messages about their choice from important others that conflict with their personal feelings and goals. Theoretically-based assessments may, as demonstrated in this example, serve as a guide for case conceptualization, which can assist in goal setting with clients and the selection of appropriate interventions.

Session Activity Example.
Another way theory and practice are integrated is in the act of completing CTI Workbook activities within a counseling session. Practitioners may, for example, collaborate with clients to complete the “Decision Making Checklist” on page 30 of the CTI Workbook. This exercise takes the 48 CTI items and instructs users (could be practitioners or clients) to put a check next to the items to which the client responded “agree” or “strongly agree.” The CTI items are arranged in seven lists according to which part of the Pyramid of Information Processing to which the item directly relates: Self-Knowledge, Options Knowledge, the Decision Making Domain (a section for each step of the CASVE cycle), and the Executive Processing Domain. The title of each list translates the technical names of Pyramid domains and CASVE Cycle phases into language that
is accessible and non-threatening to clients: for example, “Synthesis” becomes “Expanding and Narrowing My List of Options of Fields of Study,” (Sampson et al., 1996b, p. 31). Once all endorsed items have been checked off on the exercise pages, practitioners may use the total number of checks per list to determine where the negative thinking is happening most pervasively in the client’s personal Pyramid of Information Processing. This gives practitioners an idea of where to begin the helping process and what kinds of future interventions to use. Using theoretical concepts in tandem with assessment results can help practitioners be more intentional with their intervention strategies and create stronger schemas for approaching career problems with clients.

Homework Example. A third way practitioners may actively integrate theory into their career interventions with the CTI and CTI Workbook is to utilize homework assignments. Not all activities need to be completed in-session to be effective and, furthermore, homework assignments may lead to improved treatment outcomes for clients (Kazantzis, Deane, & Ronin, 2000). Homework assignments are a hallmark of cognitive therapy and are frequently used in the implementation of CIP theory with clients by employing the Individual Action Plan (IAP) on page 25 of the CTI Workbook. This activity may be used throughout career sessions to help clients define and revise goals, identify and organize concrete actions to help them meet their goals, and set deadlines by which to complete actions for accountability purposes. Creating and continuing to reference/revise the IAP with clients may help keep services/treatment on-track and encourage clients to be accountable for homework activities between sessions.

One particularly helpful homework assignment for cognitive restructuring (reframing) is "An Exercise for Improving Your Career Thoughts," the activity on page 12 of the CTI Workbook. This exercise takes clients through the reframing process (identify, challenge, alter, act) by providing spaces to write down their “old” negative thoughts (which can be either directly taken from the CTI assessment items they endorsed or a be a unique problematic career thought) and their “new” revised thoughts side-by-side. Practitioners may process an example negative thought with clients first, modeling how to identify, challenge, and alter the thought. After the practitioner models this task, clients can practice reframing in-session and then complete one or more additional reframes as homework between the current session and the next. Practitioners may consult the Career Thoughts Inventory Professional Manual (Sampson et al., 1996b) for more suggested intervention strategies and case studies that integrate CIP theory, the CTI, and the CTI Workbook.

**Final Thoughts**

Career theory, like other counseling or helping theories, may sometimes feel intangible or difficult to translate into real-world practice (Sampson et al., 2017). The CTI and CTI Workbook incorporate elements of cognitive therapy and CIP theory directly into the instrument/intervention, making it easy for practitioners to both passively and actively implement theoretical concepts in the helping process. Used together or separately, the CTI and the CTI Workbook can help clients identify and restructure the dysfunctional career thoughts that serve as barriers to career problem-solving and decision making while allowing practitioners to provide theory-based, evidence supported, career services. The CTI Assessment Booklet, CTI Workbook, and CTI Professional Manual may be purchased through the Psychological Assessment Resources, Inc. catalogue or online at [http://www4.parinc.com](http://www4.parinc.com).
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Appendix A: The Pyramid of Information Processing
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What's Involved in a Career Choice

A pyramid can be used to show what’s involved in making a career choice

![Pyramid Diagram]

Appendix B: The CASVE Cycle
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A Guide to Good Decision Making

The CASVE Cycle

Chapter 5

CLARIFICATION THROUGH STORYTELLING AND STORYLISTENING USING THE ONELIFETOOLS/CAREERCYCLES (OLTCC) NARRATIVE ASSESSMENT SYSTEM
by Mark Franklin, Tony Botelho, and Brad Graham

Everyone has stories; we are all storytellers and storylisteners alike. Having trained over 1000 practitioners over the years, I routinely ask for a show of hands to indicate how many people use stories or narrative in their client work, and almost everyone raises their hand. But stories are highly variable, in duration, quality, type of story – for example, work, learning, or leisure – as well as in delivery. In the language of narrative therapy (for example, White & Epston, 1990), some stories are “thin,” without much detail or emotion, as in “I didn’t like my summer job – it was boring.” Others are “thick” with details, influences of other people, and emotional content.

How can practitioners support clients to reflect on their stories in a systematic way? Practitioners and career professionals are good at helping clients “thicken” their stories, but to what ends? How can practitioners support clients to reflect on their stories in a systematic way, as a legitimate form of input into career counseling, advising or coaching, despite their variability? How can we use stories to help clients gain clarity, integrate results from other assessments, and then synthesize the resulting output into a useful form to help clients navigate a lifetime of transitions?

These questions and others, can be answered by the OneLifeTools/CareerCycles (OLTCC) narrative assessment system, developed and refined by Rich Feller and myself. In this article, I aim to help readers improve skills in selecting, administering, and interpreting assessments ethically and responsibly by responding to the questions above. Unique to this article I take a systems approach to explain the OLTCC narrative assessment system origins, function, structure and purpose. The article is organized in a question and answer format:

1. How was the OLTCC narrative assessment system developed?
2. What does the assessment measure and how was it validated?
3. Why would a practitioner want to use the OLTCC narrative assessment system?
4. Who may administer it and what training is required?
5. What are its limitations?

"Most of this article, takes the first person perspective of first author, Mark Franklin. With gratitude, co-authors Tony Botelho and Brad Graham contribute to practitioner perspectives on how the OLTCC narrative assessment system is used in higher education student services at Simon
Fraser University (Burnaby BC), private practice at Collaborative Careers (Boulder CO), organizational settings at CareerCycles (Toronto ON), and a higher education for-credit course (University of Toronto)."

**Short story of how OLTCC narrative assessment system was developed**

When I studied counseling psychology as a graduate student I was the only engineer among my cohort of master’s degree students. Having studied engineering and worked as an engineer for 10 years, I was able to bring a systems approach and engineering mindset to this very human counseling field. Then, as I worked in career development for seven years in career centers at large universities, I discovered what worked and what did not work to help students gain clarity and make well-informed career and life choices. Engaging students in storytelling about their academic programs, jobs, volunteer gigs and other experiences seemed to have a positive effect but I was struck by the variability in the stories I heard and unsure how the storytelling mechanism itself worked. However, as I built my storylistening skills, I began to see active engagement, positive affect, and a pattern of elements that could be extracted from stories. This is how the Career Sketch innovation emerged, as a tool to gather and organize elements, thoughts and feelings from client stories.

The Career Sketch and its refined version called Career Statement are central components of the OLTCC system. While engaged in intentional storytelling, practitioners play a key storylistening role, by identifying important elements from the stories. Elements are Desires, Strengths, Personal Qualities, Natural Interests, Other People, and Assets (see figure 1). Generating meaningful future possibilities, such as job ideas, career possibilities, business ideas, volunteer opportunities, becomes an engaging and collaborative process linked to the simultaneous development of storytelling and storylistening skills.

**Figure 1. Career Statement, gathers and organizes content from stories, shown here from Who You Are Matters! [see APPENDIX]**

I have further learned how storylistening influences storytelling quality (see for example, Itzchakov, Kluger & Castro, 2017); Kluger has an insightful TEDx talk (2015) on this topic. As practitioners bring to bear their storylistening skills, we positively influence our clients’ storytelling which in turn increases their positive affect which, as Fredrickson (2001) has shown, engages the “broaden and build” phenomenon. This broadens clients’ possibilities, and builds their internal resources like hope, confidence and optimism all of which is extremely helpful to the enterprise of career counselling and ultimately client success.

**Narrative career development in the form of a system**

A system is made from interdependent parts that form a unified whole. In the case of the OLTCC system, there are three interdependent parts:

1. **Who You Are Matters! discovery experience,**
2. **Online Storyteller,** and
3. **CareerCycles Method of Practice.**

**Who You Are Matters!** is a fun and social guided clarification experience at the intersection of
meaningful work and personal lifestyle. Disguised as a game, this discovery experience engages participants -- from small to large groups over 300 -- in meaningful conversations relevant to their career and life, and results in a substantive Career Statement takeaway that strengthens participants’ voices.

**Online Storyteller** is a web application that helps users reflect on their stories and experiences in an organized way. The scalable tools guide clients through the OLTCC narrative framework, helping them to define and clarify 6 key elements: desires, strengths, personal qualities, natural interests, influences of others, assets. Drawing from these elements, Online Storyteller supports generating meaningful future possibilities leading to well-informed choices. OneLifeTools Online Storyteller can be used collaboratively by helping professionals and their clients or provided directly to individuals for self-directed Narrative Assessment.

**CareerCycles Method of Practice** guides practitioners, drawing on their professional judgment, to facilitate individual sessions with their clients. The method of practice covers the two processes of the OLTCC system, that is, career and life clarification as well as intentional exploration. There are 45 fully documented “interventions” in the method, and since 2014, practitioners have learned to use the Online Storyteller to bring to life the method of practice in a blended delivery format.

In addition to the three parts named above, there are many related tools and handout documents that are within the system, chief among them the Career Sketch and Career Statement mentioned earlier, and Exploration Plan which is a tool to support exploration of career ideas. The OLTCC system is supported by professional training to teach practitioners how to facilitate Who You Are Matters!, and a narrative assessment practitioner training organized into “toolkits” on how to adapt practice when using Online Storyteller and CareerCycles narrative method of practice. A deeper counselor training program leads to the Holistic Narrative Career Professional designation. Having led 100-plus training days over the years, I underscore the importance of training to expand practitioners’ repertoires and build confidence in those new tools, in order to pass through the threshold from ‘cool tool’ to effective and intentional use of assessment.

**What crosses the narrative system’s boundaries?**
As a form of post-modern career counseling and qualitative assessment, we have written about the OLTCC framework elsewhere, in conjunction with a case study (Franklin & Feller, 2017). Here, I will continue with a systems perspective. Systems are also characterized by their boundaries, that is, what is in the system, what is outside, and what crosses its boundaries flowing in from the environment and outward. Client stories – their lived experience across the lifespan, in work, learning and leisure – cross through the system boundary and into the system. Likewise, clients’ present questions or situations flow inward. For example, “It’s time for me to make a career change, because I don’t have any opportunity to advance. But what should I do next?” Other people are in the environment, outside the system boundary, with the exception of three kinds of people. First, career practitioners enter into the system as facilitators of the Who You Are Matters! experience, and as counselors, coaches and advisors to their clients, bring to life the CareerCycles narrative method of practice, and also bring their expanding professional judgment to support client learning.
Second, trusted allies enter into the system. Clients are encouraged to interact meaningfully with others to support their learning and receive peer encouragement. In the OLTCC system this happens in two ways. In Who You Are Matters! participants learn from three or four peers and receive active storylistening, appreciation, and targeted feedback. In the CareerCycles narrative method of practice, clients are encouraged to ask three or more trusted allies for feedback about their strengths and possibilities. This feedback can be gathered and organized via the Online Storyteller.

A third group of people crossing the system boundary is “field research” interviewees. These are people whom individual clients or Who You Are Matters! players may ask to learn more about a particular job, role, organization, or other choice.

**Client choices about their future cross the system boundary.**
After exploring possibilities, clients make choices – for example, accepting a job in marketing, or moving to Boston – which then provide them with more stories. In this way the system is cyclical and recursive, whereby clients may re-enter the system with their new stories, to reflect once again, refine their Career Statement, and explore new possibilities.

Having described the structure already, I turn now to the OLTCC system’s purpose as a kind of decision support system: to support making well-informed career and life choices individually and in groups, and to help people navigate a lifetime of transitions. By doing so, the system is designed to contribute to the greater good of society and the economy, which is influenced by its individual members, families, cities and regions, countries and indeed all of humanity.

**Value in taking the narrative assessment itself, not just in the report and debrief.**
The OLTCC system’s functioning was first introduced into the literature by Zikic & Franklin (2010). A distinction that has not been described elsewhere is that of the value to clients of going though the assessment system itself. In traditional assessments, the client gains little by taking the time to respond to assessment questions or test items, having to wait for the payoff in the form of a resulting report, and sometimes in the form of professional interpretation or debrief as is typically done with Myers-Briggs Type Indicator or Strong Interest Inventory. Unlike traditional assessments, the OLTCC narrative assessment provides client value in the storytelling and storylistening processes, within Who You Are Matters!, within the Online Storyteller use, and within the CareerCycles method of practice as well as in the resulting Career Statement and Exploration Plan, recently incorporated in a Narrative Assessment Report.

I have been grateful to collaborate with Rich Feller and others in developing and refining the OLTCC narrative assessment system. As co-founders of OneLifeTools, Rich Feller and I have worked closely to develop and refine Who You Are Matters! and its Career Statement, as well as the overall systematic narrative approach. Many practitioners and researchers have provided valuable feedback which has been integrated to create a robust, expanding and widely applicable system.

Researchers and theories whose work has influenced the OLTCC narrative assessment system include Savickas’ life design (2012), Brott’s storied approach (2001), Cochran’s narrative career
What does the assessment measure and how was it validated?
Unlike traditional assessments which focus on a single dimension like personality, strengths, or values, the OLTCC narrative assessment is holistic, which in this context means that it integrates six elements – desires, strengths, personal qualities, natural interests, influences of other people, and assets. Also included in addition to these six elements are future possibilities, and in the case of the Online Storyteller and narrative method of practice, we include the eighth component of “thoughts and feelings.”

These components emerge from storytelling and storylistening. In Who You Are Matters! elements emerge from sharing “micro-narratives” guided by prompts within the group experience. In the narrative method of practice, the task of the practitioner is to engage in active listening, helping to gather and organize elements from client stories, for which I use the term “storylistening.” In the Online Storyteller, users are prompted by questions about their stories to derive the elements from the responses, and populate the user’s Career Sketch.

By presenting the game player, individual client or Online Storyteller user with the elements all on one page which some have called a “marvellous mosaic,” they implicitly learn that making well-informed career choices is dependent on all these elements rather than a single one – a conclusion they may have incorrectly drawn when encountering traditional assessments.

The value of the narrative assessment system and the resulting Career Statement was validated in an outcome study (Franklin, Yanar & Feller, 2015). The reader is encouraged to see the outcome study article for a full discussion. In brief, the outcome study found significant increases in hope, efficacy (confidence), resilience and optimism, abbreviated as HERO and collectively known as Psychological Capital (Luthans, et al., 2007). Outcome study increases in HERO were correlated with increases in four key measures: clarity, career and life satisfaction, person-job fit, and employment status. Together these results support the OLTCC narrative assessment system as an evidence-based practice.

Why would a practitioner want to use the OLTCC narrative assessment system?
With over 1000 practitioners trained in whole or in parts of the OLTCC system, everyone has a story. Drawing on more than ten years of training practitioners, I offer the following eight reasons that summarize what we hear from trainees for having chosen to explore and embrace the OLTCC narrative assessment system.

Engaging, group-based peer-to-peer experience.
Practitioners using Who You Are Matters! want to engage their clients in a fun and social experience that clearly supports participants’ career development. The resulting substantive takeaway – the Career Statement – helps practitioners by providing a tool that strengthens clients’ voices...
using professional vocabulary they can use in career exploration and job search. Practitioners appreciate the non-traditional workshop format that provides peer learning and peer feedback.

**Consistency and structure.**
When asked in training about whether they use narrative or storytelling in their client work, the vast majority of practitioners say yes. Yet so many are using informal methods that vary from client to client, and across practitioners even on the same team. Having a consistent approach to client work while still allowing for practitioners to apply professional judgment gives practitioners and clients alike a sense of relief that there is a ‘method in their madness.’ The structure of the Career Sketch and Career Statement with its consistent elements help clients and practitioners generate a sense of organizing the chaos in their minds and stories.

**Practitioner fatigue with traditional assessments.**
Client self-learning and self-awareness are universally desired, however, many practitioners report a fatigue with traditional self-report assessments. While we hear a wide range of assessments being used, the two most common are the Myers-Briggs Type Indicator, and Strong Interest Inventory. Even after expert interpretation, practitioners notice that clients often want to be matched with occupational choices. Many matches prove valuable to clients, though some ‘backfire’ occurs when clients are unable to link the occupational suggestions with their sense of self. In our CareerCycles practice our associates frequently hear this complaint from clients, for example, “the test told me to be a potato farmer” but the client does not relate to potato farming – even if he likes the outdoors, enjoys working with his hands and values tangible results. Newer assessments that rely on actual testing rather than self-report, such as the YouScience aptitudes assessment also offer relief from fatigue with traditional assessments.

**Client dissatisfaction with traditional assessments.**
Practitioners report a growing dissatisfaction with traditional assessments among their clients. Clients realize that the changing world of work demands a more nuanced approach than what many have experienced with traditional career assessment, often in high school. With strong empathy skills, practitioners hear their clients and seek to give them what they want, or more clearly stated, want to avoid giving them what they do not want.

**Desire to align with the trend toward narrative.**
With the increasing emphasis on narrative approaches in theory, literature, practice, and in learning environments such as NCDA’s national conference, practitioners are curious about ways to align practice with this trend.

**Building skills in alignment with work preferences.** As stated above, a broad cross-section of practitioners is using informal methods of narrative assessment and storytelling. I prefer the term, storylistening, to describe a skill that practitioners have been building, to elicit client stories which in turn draw out practitioners’ skills in empathy, active listening, narrative analysis and idea generation.

**Move toward evidence-based methods.**
Administrators and practitioners are understanding more and more the need to seek and use
evidence-based methods. The call is coming from both funders and clients as we all see the move toward big data and analytics. With the publication of the outcome study of the OLTCC narrative assessment system (Franklin, Yanar & Feller, 2015), practitioners and administrators have more confidence in introducing such new approaches.

Versatility of multiple entry points.
In a postmodern context, clients, their stories and the subjective value they derive from them, require more nuanced approaches to career assessment. Some clients may prefer beginning with a traditional individual meeting, whereas others may prefer using technology on their own, or engaging in a small group process. With the OLTCC narrative assessment system, practitioners have a system with linked components where clients may enter by engaging in any of the three components of the system and end after one experience, or continue with one or two other components, providing comprehensiveness, depth and impact.

Who may administer the OLTCC narrative assessment system? What training or credentials are required?
In an effort to provide a meaningful career development experience to as many people as possible we have eliminated the need to get certified to lead Who You Are Matters! This fun and social group activity can be led by anyone who studies the self-directed learning materials. Practitioners wishing to learn how to facilitate the game especially with larger groups are encouraged to take a one-day training program offered in-person and remotely.

As a narrative method of practice to work one on one with clients, integrated with the Online Storyteller, helping professionals are required to take a brief training program in the method and toolkits. Over 1000 counselors, coaches, advisors, specialists, school counselors, psychologists, private practitioners, human resource professionals have taken the training over the past 10 years. A deeper training to build skills and expand repertoires is geared especially to trained counselors and coaches, and results in receiving the Holistic Narrative Career Professional (HNCP) designation.

Who most benefits from the OLTCC narrative assessment system?
Because everyone has stories, the OLTCC narrative assessment system has demonstrated effectiveness across the lifespan and in diverse populations, for both individuals and groups. In preparation for writing this article, I requested input from users of the system in four broad application areas: higher education and student services, private practice, employment services, organizational applications, and higher education. I include stories from these areas below in this section, with gratitude to and acknowledgment of the contributors.

In higher education, the game, Online Storyteller and narrative method of practice have widely been applied, in dozens of universities, colleges, community colleges, and private colleges. From engineering to humanities, and from undergraduate to masters and doctoral levels, all components of the narrative assessment system have been successfully applied. In some cases the tools of the system have been integrated into for-credit career management courses. For example, I teach a master-level course at the University of Toronto called Engineering Careers: Theories and Strategies to Manage your Career for the Future, in which students experience Who You
Are Matters! and use the Online Storyteller, and submit outputs of each for grading. High school teachers and school counselors have used Who You Are Matters! in the classroom especially at the 11th and 12th grade levels. A youth expansion pack has been developed for this population, adapting some of the cards to be more developmentally appropriate. Practitioners working in employment agencies and in private practice use the narrative system effectively for both group work and individual clients.

In workplaces and organizations, Who You Are Matters! is an effective team-building experience. It has been used to support career management in the workplace, providing clarity for employees about navigating their careers within the organization, and preparing them effectively for career conversations with their managers. One such case study using Who You Are Matters! and the narrative method for leadership development in an organization was published in this journal (Bennett & Franklin, 2015).

Diverse clients from over 80 countries of origin have been successfully served in our Career-Cycles career management practice based in the multi-cultural cities of Toronto and Vancouver. Further, Who You Are Matters! players and individual clients have ranged in age from teenagers to 70s, and also diverse in culture, language, sexual orientation, ability and disabilities.

What are the appropriate procedures for administering and interpreting the OLTCC narrative assessment?

While the Who You Are Matters! experience can now be led by anyone who has studied the self-directed learning materials, it is a more significant task to set the career development context for the game experience, and then to follow up with post-game support. Ideally larger group facilitations are led by a trained counselor, coach, advisor or career specialist. Practitioners who guide clients using the CareerCycles narrative method of practice find themselves in an engaging and collaborative process that positions the client as expert storyteller, and practitioner as supportive storytlistener. With training and practice, many practitioners have come to appreciate this more collaborative role.

What are the limitations of the assessment?

Like any tool or assessment, the OLTCC narrative assessment system should be integrated with appropriate practitioner judgment. All parts of the system are self-report form of self-awareness. They require openness to sharing stories. Stebleton (2010) suggests many strengths and limitations of narrative methods, with one limitation being the time commitment especially on the part of the practitioner. We have overcome some of this limitation by introducing a blended delivery model using the Online Storyteller.

The Who You Are Matters! experience requires two to three hours, a requirement which can impose limitations in some workplaces such as schools, despite the ability to reach many more individuals compared to a one-on-one intervention. The experience can be divided into two blocks of time to overcome this constraint. As a web application, the Online Storyteller requires internet access, and a basic level of technical skill which can be a limitation to some users or clients.

Case studies illustrating how the OLTCC narrative assessment system being used in diverse settings
Undergraduate and graduate students in higher education. **By Tony Botelho**, Director, Career & Volunteer Services at Simon Fraser University (Burnaby BC, www.sfu.ca)

**Benefits and results***
- Increases in clarity and in likelihood of doing the actions identified in their plan (primarily through Online Storyteller)
- Increased understanding of the interconnectedness of the different elements of one’s career journey and increased team cohesion (when using Who You Are Matters! with group of new Career Peer Educators)

*NOTE: Primarily anecdotal/observational at this time as we haven’t had the time to properly review our evaluations.

**What led to introduction of OLTCC narrative assessment system?**
Our centre was in a period of reinvention and was looking for methods/strategies that better fit how we were beginning to see our role as career professionals.

Which elements of system do you use?
Narrative method of practice + Online Storyteller + Who You Are Matters!

How do you use it?
We’ve been using the OLTCC narrative methodology and the Online Storyteller for quite some time in one-to-one settings. The primary audience is university students who identify as struggling with career/life clarity.
We’ve more recently adopted Who You Are Matters! as part of our service. Our initial focus has been on incorporating the game into the development of training activities of groups or cohorts that already exist, but we will also be exploring a more informal drop-in model.

Other assessments or tools used and how they link.
Depending on the program/audience, we might also use the Luck Readiness Index (Bright and Associates) and the Career Flow Competencies Self Assessment (adapted from Yoon & Niles, 2009).

**Private practice:** Transitioning professionals, approximately 50 per cent employed.
**By Brad Graham**, M.Ed., LPC. Career Counselor at Collaborative Carers. (Boulder, CO, collaborativecareers.com)

**Benefits and results**
- Re-engagement / Self-Discovery
- Clarification of client Strengths, Desires, Natural Interests, Assets, Career Possibilities, etc.
- Using the Career Sketch as an organizational tool to increase client ownership/control over their process. This is the distinguishing characteristic/advantage over other self-directed or computer-generated assessments.

**What led to introduction of OLTCC narrative assessment?**
The OLTCC system offers the client the ability to use technology as a medium to co-author their career/ life experience with a practitioner. It humanizes the career experience, exposing the client to the common non-linear reality or work/ life.

Which elements of system do you use?
Narrative method of practice + Online Storyteller

How do you use it?
The theoretical underpinnings of the approach – both Method of Practice and Online Storyteller, allow the client to self-direct through the process. All the information gathered is recorded and transferred from step to step in the process, allowing the client to see instant results, especially in the areas of future-potential career possibilities (why most clients come to see us). Its holistic approach honors the client as there are no “right” or “wrong” answers. The Timeline shows the non-linearity of the approach and allows for acceptance of their situation, overcoming of shortfalls, and an action plan to develop future career plans, skillsets – allows them to ideally craft their own future, again!

**Other assessments or tools used and how they link**

I use the Knowdell Values card sorts to help dial clients in further (desires). I integrate this directly on the Career Sketch. Again, control, ownership, and clarity are the goals.

I use the StrengthsFinder / Quest as a motivational tool, marketing (interviews, resume, etc.) and integrate directly onto Career Sketch. Although it is self-reported, I have a lot of success with this tool as it provides instant validation.

Thirdly, I use YouScience.com, an aptitudes assessment. Clients appreciate the professional look of this assessment, validation of its computer-generated results, and insight it provides. It also links results to a giant list of occupations, which I open up later when we are ready for the Exploration Plan. I integrate the results on the Career Sketch and later have the clients talk about their findings on the Career Statement.

**Organizational applications.**

Small (a), medium (b) and large employer (c) led by CareerCycles Associates. careercycles.com

**Benefits and results**

- Strengthened team communication.
- Developed leadership skills.
- Clarified career aspirations.

**What led to introduction of OLTCC narrative assessment?**

a) Teambuilding experience request from management
b) Cultural change in organization triggered need for leadership development
c) Large organization requested an event for employee career development in the workplace.

Which elements of system do you use?

Who You Are Matters! + narrative method of practice.

How do you use it?

All three applications used Who You Are Matters! for c) game play for 300+ employees. In b) the organization included six one on one sessions with each of 18 leaders using the narrative methodology.

Other assessments or tools used and how they link

In b) the interventions also included a team building game, Prelude. http://www.playprelude.com/

**Higher education/for-credit career course.** Masters & PhD students. By Mark Franklin, sessional lecturer at University of Toronto. (Toronto ON) See course by scrolling to APS1030 at http://ilead.engineering.utoronto.ca/academic-courses/graduate-courses/

**Benefits and results**

- Increases self-reported in Hope, Efficacy, Resilience, Optimism (Psychological Capital, Lu-
• Increases self-reported in ‘clarity’ and ‘organization of thinking’
• Anecdotal benefits of Who You Are Matters! include clarity of desires, strengths, influences of others, and high-quality peer feedback.

What led to introduction of OLTCC narrative assessment?
OLTCC narrative assessment tools were written into course syllabus, approved by institution as a means to introduce an evidence-based method into curriculum. Institution licensed OLTCC tools on a per-student basis.
Which elements of system you use?
Online Storyteller + Who You Are Matters!
How you use it?
Students play Who You Are Matters! in meeting #3. Post-game they use Online Storyteller to deepen clarification by reflecting on 4 stories. Resulting Career Statement and Exploration Plan are copied into a ‘Logbook’ for grading. Overall OLTCC framework used to organize course themes.
Other assessments or tools used and how they link
Half-credit course includes ‘Logbook’ in which students write brief reflections on class activities readings and Proprioceptive Writing (Metcalf, 2008). Students are invited to expand their Career Statement and Exploration Plan within the Online Storyteller as new insights emerge.
Pre- and post-course measures help students observe their own transformation and learning. Measures used: Psychological Capital including subscales of Hope, Efficacy, Resilience, Optimism (Luthans et al., 2007).

Conclusion
In the fast-changing world of work, rather than aiming toward a one-time occupational choice, practitioners and clients are better served by working collaboratively to support clients to successfully navigate a lifetime of transitions. Narrative, evidence-based methods such as the CareerCycles Method of Practice supported by gamification and online storytelling tools from OneLifeTools offer a guided framework for clarification, career exploration, and making well-informed choices, that once learned can be reapplied at any transition. With so many tools now available to reach more clients, coupled with the trend in our field toward helping clients reflect on their stories in an organized way, the question now is how to make practitioners aware of, and willing to embrace new and effective tools to overcome the obstacle of limited resources by scaling up career management.

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APPENDIX  Figure 1. Career Statement gathers/organizes content from stories
UNLIKE OTHER PSYCHOMETRICS:
Understanding the MBTI’s Valuable Niche in Career Development
by Rich Thompson

The Myers-Briggs Type Indicator® (MBTI) has been one of the leading psychometric instruments in organizations of all stripes for decades, and is relied on by the majority of the Fortune 100 as well as numerous universities and government agencies worldwide (Ahmed, 2016). The assessment is used by HR organizations for team building; by schools, colleges, and counselors to help students develop a better understanding of themselves; and by millions of people as a framework for gaining insight into personality and preferences. While it has numerous applications in leadership development, team building, and other areas, one of its most popular and important uses involves helping individuals understand how various career paths align with their personal preferences for communication, thinking, and behavior, enabling them to make more informed vocational decisions (Loffredo, 2017).

Critics, however, have noted that the MBTI is infrequently used in clinical applications and decreasingly used in academic research. This growing absence from research and challenges from the world of academic psychology has met opposition from those who support the MBTI’s applications in business, education, and beyond, spurring significant debate about the role the MBTI has in career development (Eberle, 2017). How can an instrument that is not widely used by a campus’s psychology department be relied upon by the same school’s counselors to provide students with valid and helpful insights about their personality?

As the individual responsible for updating the MBTI for the last ten years, I can attest that the instrument can be misused by practitioners. However, when the instrument’s true scope and limitations are well understood, it’s not difficult to see both why the MBTI has found a niche in career counseling and advising as well as how it may be useful in helping individuals develop understanding of the self and others. As we’ll see, the reasons for its popularity in counseling applications and lack thereof in clinical and research applications has much more to do with what it was designed to measure and how it presents its measurements, than it does with the science behind the instrument.

Where Did the MBTI Come From?
The Myers-Briggs was developed by Isabel Briggs Myers together with the Educational Testing Service (ETS), a major test publisher. After twenty years of research and refining by Briggs Myers, the MBTI was published in 1962. Since then, the tool has undergone constant revision and
refining using rigorous scientific testing methods, and much research has been done examining
the MBTI’s soundness for applications of its recommended use (Bess, Harvey, & Swartz, 2003).
In the manual supplement on the MBTI assessment (Schaubhut, Herk, & Thompson, 2009)
which I co-authored, we found that the test and re-test agreement for each aspect of MBTI type is
nine times higher than chance, and for three of the four dimensions it is about three times higher
than chance, meaning that individuals are likely to receive the same results on consecutive MBTI
administrations.

What Is the MBTI For?
Much of the uncertainty about the MBTI's usefulness is rooted in an incomplete understanding
of what the instrument measures. It appears the same reason the tool is so popular for orga-
nizations is the reason it is not widely used in academic or clinical psychology. The MBTI measures
only variations in normal aspects of personality. It is not designed to identify pathology, nor is
ability/potential within its scope. Rather, the MBTI maps self-reported preferences for being and
interacting with a framework of personality structured around four sets of dichotomous prefer-
ences. Individuals’ responses to items on the assessment help indicate:
• Where people prefer to focus their attention and get energy (Extraversion or Introversion)
• The way they prefer to take in information (Sensing or Intuition)
• The way they prefer to make decisions (Thinking or Feeling)
• How they orient themselves to the external world (Judging or Perceiving)

The assessment process allows individuals to distill a vast array of seemingly unrelated specific
preferences from the questionnaire (“Big parties wear me out” or “I can’t stand to follow a recipe
line by line”) into a succinct four-letter type code that summarizes the vast array of preferences.
In short, the MBTI asks individuals about their preferences and reports those preferences back in
a format useful for developing understanding of the self and others. While this descriptive ap-
proach is highly useful for developing understanding, and makes the MBTI highly suitable for
counseling applications, it is, in many cases, outside the desired objectives of research or clinical
applications. It is also important to note that the instrument was not designed for employment
selection or assessing ability. The instrument, by its descriptive nature, is designed to help people
learn about themselves and others, not to reveal their capability.

How this kind of insight is specifically applied to career development has also been a source of
confusion. As previously noted, the MBTI doesn’t speak to aptitude. For example, it doesn’t say
whether or not you’ll be a great engineer based on your visual-spatial abilities or mathematical
skills, or whether you’ll be a great artist based on your ability to execute creative ideas. What
it does tell you is how your preferences for thinking, acting and communicating may align with
certain career paths where particular types are common, in part because the occupation allows
its inhabitants to work in a manner consistent with their preferences. Additionally, as CPP, Inc.
publishes statistics on how various types are represented within the various professions, MBTI
assessment results can be used to inform you on how your own personality type will mesh with
types that are prominent in a career field that interests you. For example, if your personality type
is underrepresented in your career field of choice, this empowers you to work on areas of com-
munication and behavior that will help you bridge various type-based differences.
The Big Five Framework

The model of personality that is used frequently in psychology departments, for academic research, and in clinical settings is the Big Five (Westerhoff, 2008). The Big Five measures along five scales:

1. Neuroticism: the predisposition to experience negative effects such as anxiety, anger, and depression, and other cognitive and behavioral manifestations of emotional instability
2. Extraversion: sociability, activity, dominance, and the tendency to experience positive emotions
3. Openness to Experience: imaginativeness, aesthetic sensitivity, depth of feeling, curiosity, and need for variety
4. Agreeableness: sympathy, trust, cooperation, and altruism
5. Conscientiousness: organization, persistence, scrupulousness, and need for achievement.

Research has shown that MBTI categories correlate highly with the Big Five scales (McRae and Costa 1989), suggesting that each of these tools offers a different window into the same underlying facets of personality. John A. Johnson observed in Psychology Today “Given that there is an enormous amount of research indicating the impact of the five major personality factors on significant life outcomes, and the scales of the MBTI are similar to the factors of the FFM, it follows that scores on the MBTI can predict significant life outcomes.” (Johnson, 2016).

Since the Big Five assessment measures are continuous, researchers also find them more useful for statistical analysis than the MBTI’s dichotomies. On the other hand, the MBTI dichotomies that form a four-letter type code are more accessible to individuals painting a picture of themselves than are scores on scales, although it should be noted that the MBTI’s “Preference Clarity Index” (PCI) does provide insight into how clearly indicated is an individual’s particular preference, with indicators for slight, moderate, clear, and very clear which are used to aid interpretation. The differences between the two frameworks show why each have found separate uses, rather than whether they are fundamentally valid or invalid. While the MBTI does not describe personality comprehensively and cannot be used for applications like assessment or selection, its unique window on an individual’s preferences makes knowledge of the self and others highly accessible.

References


**About the Author**

Rich Thompson serves as Divisional Director of Research at CPP, Inc., where he supervises and directs the work of a team of doctoral and master’s level psychologists focused on ongoing revisions, extensions, and development of psychological assessments, related products and associated services. He also serves as a member of CPP’s corporate strategic planning team, and has co-authored two volumes of Myers-Briggs Type Indicator® (MBTI®) Type Tables based on commercial data. With more than two decades in psychology, he has also served as a research scientist for the Federal Aviation Administration (FAA). He earned the Masters and PhD in Psychology, with a minor in Management, at Texas Tech University.

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THE CLIFTONSTRENGTHS:
Focusing on Strengths as a Predictor of Success
by Cori Shaff and Emily Hoyt

Career development practitioners aim to empower clients to understand themselves better and to identify a path towards a fulfilling life. The CliftonStrengths (CS) is an online assessment that asks 177 questions as a first step toward identifying a person’s natural areas of talent. This article will discuss the benefits of utilizing the CS as an assessment tool, explore the premise and theory behind the tool, and discuss practical next steps to implement post-administration.

What is the Clifton StrengthsFinder?
In the United States, there is often a focus on fixing weaknesses to make improvements. In fact, studies show that when asked about their greatest strengths, only one third of the population can confidently name them (Rettew & Lopez, 2008). After working as a professor of psychology, Donald Clifton decided to shift this approach by concentrating on what is right with people, rather than wrong. By focusing on strengths, Clifton theorized that people could capitalize on areas of excellence in order to become most successful in life (Asplund, Agrawal, Hodges, Harter, & Lopez, 2014). To test this theory, Gallup researchers administered semi-structured personal interviews to over 2 million individuals rated by researchers as best performers in their varying occupations to better understand themes behind their success. In studying these interviews, Clifton found that playing to one’s strengths was a predictor of success (Asplund et al., 2014). These findings led to the creation of CliftonStrengths assessment.

Developed in the 1990’s, the CliftonStrengths (CS) measures natural talent themes. Taken online, the CS consists of 177 statement pairs used to measure 34 talent themes, which can be defined as “recurring and consistent patterns of thought, feeling, or behavior” (Gallup, 2017). “To mirror the speed of real-life decision-making,” individuals have 20 seconds to select the statement that they are most aligned with out of the pair (Buckingham & Clifton, 2001). The answers are sorted in order of dominance for all 34 themes and, upon completion of the assessment, individuals are given descriptions of their top five talent themes (Rettew & Lopez, 2008). From this point, these themes can be used as a starting point for further discussion and development, which will be outlined later in this article.

To date, over 17 million individuals have completed the CS online (Gallup, n.d.b). The CS is currently available in 25 languages and the format is adaptable to meet the needs of individuals with reading disabilities. The CS is appropriate for both adolescents and adults with a grade 10 reading level or higher (Asplund et al., 2014). Gallup has made an effort to ensure that the CS is an inclusive assessment; however, there is limited research on multicultural considerations for this.
tool. As with any assessment, it is always important to consider how cultural implications may affect results. Additionally, practitioners should consider the individuality of each client and how they personally perceive and understand each theme of talent. While the CS strengths are representative of certain themes, they will likely represent different talents for different individuals. This topic will be explored later.

Reliability and Validity
Since the creation of the CS, Gallup has continued to conduct studies measuring the assessment’s reliability and validity. As measuring validity for “personality” assessments proves to be challenging (due to the subjective interpretation and elusive definition of personality) Gallup considers these studies to be an ongoing investigation (Asplund et al., 2014). Results have shown that the CS does measure what it intends, and studies are taking place currently to ensure previous findings are up-to-date. It is important to note that the CS is not validated for mental health screening or for use in employee selection (Rettew & Lopez, 2008).

Who may administer the assessment?
One of the many benefits of using the CS is its accessibility for both practitioners and clients. The assessment can be purchased online and self-interpreted using the available online resources. A counselor or coach can purchase access codes online (https://www.gallupstrengthscenter.com/Purchase/en-US/Product) for $19.99 US or through a new book from Gallup that includes an access code, which starts at $16 US. Clients may also purchase access codes online or through a book, but it is not recommended this assessment be completed without interpretation, as a thoughtful review of results is more effective than taking the assessment alone. While it is recommended that this interpretation is completed through counseling or coaching, the individual completing the CS online may choose to do a self-guided interpretation of their results.

The authors recommend building knowledge of the assessment, the 34 talent themes, and the guiding principles of strengths theory prior to administering the assessment. One way to do this is to become a Strengths Certified Coach through a week-long training, an online test, and an evaluation. Another option is to watch or listen to the Theme Thursday YouTube videos or podcasts, read online resources and articles, and practice using the assessment with others. It is important for the individual administering the CS to have a deep understanding of their own strengths and how this tool has been of value for them, personally. Without this understanding, the administrator may fall into the trap of over-simplifying the CS and labeling a person based on their talent themes rather than processing the meaning behind each one. In the words of Curt Liesveld (2013), a consultant for Gallup, “Such over-simplifications can lead to unfair and unhelpful stereotypes and labeling.” The more one knows about their strengths, the deeper they may articulate the nuances of another person’s strengths. There are unique characteristics and complexities in each person, and the CS reflects these complexities through in-depth information about the 34 talent themes, as well as the various combinations of a person’s top five Strengths. The authors examine how their own strengths influence the process of guiding clients through strengths development in the case studies below.

Additional Considerations
A client may find value in understanding each individual strength as a component of how they
behave, think, and interact with others. However, further analysis of how strengths work to-
gether is required in order see the potential and uniqueness of each strength. For example, at first
glance Woo and Relator may seem like opposite strengths based solely on their descriptions. A
person with Woo as a natural talent is someone who can easily connect with a wide variety of
individuals and feel comfortable meeting new people. An individual with natural Relator talent
finds deep satisfaction in developing relationships with select individuals and prefers to converse
with already developed connections. While these descriptions appear oppositional, upon further
analysis, it becomes clear that a person with this strength combination would not only be able to
break the ice with a variety of people, they would also be skilled in building long-term meaning-
ful relationships with those same people. The definitions alone are distinct, but it is possible for
Woo and Relator to be complimentary.

The foundation of the practitioner’s strengths is an important component when assisting others
with strength development given the depth of information found within each of the 34 strengths.
Consider the following prompts to explore how each strength impacts counseling and coaching:
• How does the strength influence relationship development?
• How does the strengths affect goal setting and accomplishing tasks?
• How does the strength inform processing information and making informed decisions?

To demonstrate this, we consider the authors of this article. One of the author’s talent themes
include Empathy, Harmony, Individualization, Developer, and Relator. All five of these have a
foundation of naturally building relationships, and when utilized effectively, can be extremely
beneficial for work in the counseling field. Empathy and Relator allow for building quick rap-
port with clients and deepening the helping relationship. Individualization recognizes and honors
differences in clients while Harmony allows for building connection despite these differences.
Finally, Developer is used to help clients realize their potential and achieve their goals.

The other author’s talent themes are Empathy, Woo, Maximizer, Harmony, and Communication.
Through a deeper understanding of strengths, Woo can quickly break the ice, which creates
space for Empathy to provide a safe space through active listening. This allows the client to be
vulnerable and share their concerns and thoughts. A strong theme of Communication presents the
ability to ask insightful questions throughout sessions and Harmony looks for themes and com-
monalities in responses. Lastly, Maximizer quickly identifies strengths and potential in the client
in order to move to action.

Uses of the CS
According to Asplund et al. (2014), the talent themes measured through the CS represent the raw
talents an individual possesses. These natural talents can be used as a foundation for building
strengths. A common formula to understand this premise is talent x investment = strength (Rath,
2013). In this formula, investment includes developing skills and gaining knowledge relevant to
the talent theme. Through identifying raw talents, the client can work on specific action items to
develop talent into strength. Imagine an individual’s development process as a roadmap to self-
discovery.

When working with clients, the CS can be a vehicle to help them achieve goals in a more enjoy-
able, efficient, and seamless way (Asplund, 2012); when they apply their natural talents, clients will likely work efficiently and enjoy the process. As the client develops more conscious competence of their day-to-day actions, they can more easily distinguish between successful behaviors and choices that are not as helpful. As they identify positive and helpful behaviors, they can choose to replicate these actions to move toward consistent work performance. Keep in mind, changes may be subtle and seem inconsequential. However, with each small change, the client can move towards excellence (Maurer, 2004).

A career practitioner may find value in using the CS to help clients increase their confidence to make a career change, develop self-awareness, speak more clearly about strengths and experiences, and understand why they like or do not like certain career opportunities. For example, consider a client who comes to career counseling because they are unhappy with their current job, but they do not know what alternatives exist. The client could easily focus on all of the negative components of their situation—what they do not like about their job or why they feel like a failure. Rather than seeing a client’s lack of direction as a problem that needs to be fixed, the CS takes a positive approach. For example, consider the client who asks you to suggest some potential career paths only to shut you down because they “are not good enough,” lack the skill, or do not have the “right” background. The CS immediately points out where this client is successful in life, allowing the counselor to inquire about how the client has used their talents/strengths before and where they are demonstrated in everyday life.

**Using the CliftonStrengths with College-Students**

The CS can be an effective tool for clients who are interested in self-exploration. According to Asplund et al. (2014), college students saw an increase in confidence, direction, and hope while utilizing strengths-based development. At the college level, students commonly display feelings of being lost regarding their interests, skills, and abilities. The CS can help them start to decipher where their strengths lie on a personal level as well as in academic and work settings.

When meeting with a student or client who appears to be lacking self-esteem or a sense of direction, career practitioners may start by asking a series of strengths-based exploration questions to assess self-awareness of strengths, talents, and abilities. Sample questions might include:

- What would those who know you best say you’re good at?
- What have your professors/peers complimented you on?
- What activities do you seem to pick up quickly?
- What activities give you the most satisfaction?

Students who have a hard time answering these questions would likely benefit from taking the CS. It can be equally beneficial for those who are interested in exploring strengths-related questions further. It is important to emphasize that taking the assessment is merely the starting point for doing strengths-based development work. Follow-up appointments for interpretation should be required so that assessment takers may get the most out of their experience with the CS. Upon follow-up, clients might read through each of their talent themes and highlight any statements that resonate. Reinforcing the idea that the CS can be used as a vehicle, it can be helpful to assess how a student’s top five strengths might help them solve a current problem in their life, set goals for the future, or assist in overcoming feelings of being stuck. Clients will likely most benefit
from the CS when it is demonstrated as directly applicable to their lives.

The CS can also be used as a tool for the job/graduate school application process. As mentioned earlier, many job applicants draw a blank when they are asked, “What are your top strengths?” To prevent this, the CS can be used to help job seekers prepare for interviews. For example, let’s say the client is a pre-health student who is applying for medical school. When asked about her strengths during a mock interview, this student freezes up. To become more confident in her answer, she may take the CS to give her some language to describe her strengths. Upon follow up, her top five strengths were Woo, Futuristic, Achiever, Responsibility, and Individualization. She shares examples of how these strengths have previously shown up in her life and crafts samples of how she could use her strengths in an interview.

Case Study
The following case study provides a more detailed example of how a career practitioner might use the CS as an exploratory process while working with college students.

A senior-level student who identifies as female was approaching her graduation date and unsure of what her next steps would be. She majored in anthropology and religious studies, but after an experience abroad that involved fieldwork, she concluded that she was not interested in pursuing those interest areas further. After coming to this decision, she felt that she was lacking direction and wanted help identifying her interests and abilities. Upon taking the CS, her top five strengths were as follows: Input, Empathy, Harmony, Learner, and Developer. Her results confirmed her love of learning new things, and also identified a new aspect that was important to her: finding a career that allowed her to be socially active throughout the day. Upon processing this, she recalled loving the social component to her current job, but dreading the administrative work that required her to sit alone in an office for hours on end.

To put her strengths into action, the practitioner created a list of potential careers that involved working in a social setting and value professional development. This student always enjoyed meeting with her academic advisor and pursuing a career in higher education became even more appealing after reviewing her strengths. It would satisfy her needs for Input and Learner as she would frequently be learning about new classes and programs and would have opportunity for professional development. Similarly, she would be able to play into her relationship-building strengths and bring Empathy, Harmony, and Developer into each of her appointments. A career in higher education would allow the student to access and build upon her strengths in the workplace.

Using the Clifton Strengths with Working Professionals
The CS may also be a successful intervention with working professionals. Using the CS with professionals provides an opportunity for the individual to clarify their goals, prioritize how they spend their time, and increase their engagement at work. With clarity of natural talents and preferences, people can proactively identify how to spend their time and effort at work. Information gained from taking the CS may also prove useful in enhancing the ability to work with others. When people use a strengths-based lens to view their colleagues or team members, they may better appreciate the different ways each individual approaches problems and relationships.
The CS may also be helpful when an individual is reconsidering their career path and identifying additional options for their career development.

Administering the CS with a working professional is very similar to the process for a college student. One additional preparation task to consider is to ask the individual to read the “Action Items,” which can be found on the CliftonStrengths portal after completing the assessment, and to identify at least one item within each of the five strengths. The Action Items is a tangible take-away for the client because it suggests tailored next steps for each individual strength. The coach or counselor conducting the interpretation can prepare by reading the client’s Signature Themes Report, the action items, and fill in any knowledge gaps of the client’s five strengths. It may also be useful to provide 3-5 intake questions one week prior to the meeting as a way to focus the conversation during the session. The following intake questions are suggested:

• What do you really love about your work? What drives you crazy?
• What, if any, factors distract you from completing the tasks for which you are responsible?
• What is the most important challenge you currently face?
• What else would be important for me to know?

At least one 60-minute interpretation meeting and one follow-up session (flexible length) is recommended to review the top five strengths and to check in on progress towards goals.

As mentioned earlier, the CS can be a powerful tool to help individuals identify small areas for change which may lead toward more excellent and efficient work outcomes. Consider a client who is in the middle of their career and serves in a mid-management position. If the client is overwhelmed by their supervision and multiple project responsibilities, completing the CS may help provide insight into how they can more effectively manage their workload. Upon completing the CS, the individual’s report reveals the strengths of: Strategic, Includer, Adaptability, Ideation, and Input. Through the coaching discussion, the client identifies they work better, are more fulfilled, and more productive when they have chunks of dedicated and focused time, which stems from Input and Adaptability. Even though this may have been known to the client, the discussion provided clarification around the true value of this approach.

Case Study
This case study explores how a working professional may use the information gleaned from the CS to identify ways to create a foundation for future success in their profession.

A new professional, who identifies as a male, has 4 years’ professional work experience. He strongly identified with four of his talent themes: Analytical, Restorative, Intellection, and Learner; and had less of a connection with his Developer strength. Through the conversation, he identified that he thrives when he can be innovative, curious, and collaborative at work. He shared his vision of being seen as a thought leader and shared multiple ideas on how he could make an impact in his organization, clearly demonstrating his Analytical, Intellection, and Restorative themes. When he hears about innovative ideas outside of his chosen profession, he immediately considers how this concept could transfer into his area of expertise, which highlights his Learner and Restorative themes.
Through a discussion of the barriers to achieving his goals, it became clear that an area of talent opportunity is in his Developer theme. While the common understanding of Developer is to develop people, we discussed how his Developer theme could be implemented with his ideas and in developing relationships with people who could help bring his ideas to life. We also brainstormed potential complementary partnerships to deepen in order to execute his most creative and inspiring ideas.

Conclusion
The CS is an assessment that measures natural talent themes, that when developed by investing knowledge and skill, can become strengths. Each person has a unique set of strengths, and applying these strengths to day-to-day activities can result in more joy and less stress in life (Asplund, 2012). The CS can be an empowering tool for clients who are looking for direction in their personal and/or professional lives. As demonstrated in the included case studies, the CS brings awareness to an individual’s natural talents and can reframe a negatively-skewed view into a more positive outlook. As practitioners consider integrating the CS into their work, the authors recommend completing the online assessment and spending time reviewing, analyzing, and discussing their own talent themes with others in order to be most beneficial to their clients.

References


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Importance of Assessment in Career Development

Career development professionals work with clients to manage a variety of factors so they might successfully navigate their career journeys. In addition to successfully obtaining a job, other common measures of career development interventions include a client’s level of certainty in their choice, ability to generate new options, satisfaction with career outcomes, and level of satisfaction with the counseling process itself (Lamp, Telander, & Brown 2008). Counselors should be discerning when selecting appropriate interventions for each client and situation, and should be just as careful when selecting career assessments.

In the higher education setting, stakeholders are most often interested in the post-graduation “placement” numbers as a marker of career success. However, the emphasis on whether or not students are employed by the time they receive their diploma may overshadow other types of progress made towards their career goals. If college and university career centers choose assessments in both counseling and program evaluation that capture the various ways our services impact students, it may be easier to articulate the value of our services and garner buy-in from stakeholders.

This article will discuss the use of the Career Decision Self-Efficacy Scale (CDSE) to measure the impact of a career development course for a small sample of university students. It will provide a brief background of the tool, results and conclusions from the course, and implications of using the CDSE with various career development interventions.

Background on the Career Development Self-Efficacy Scale

Karen Taylor and Nancy Betz (1983) developed the Career Decision Self-Efficacy Scale to measure an individual’s confidence about successfully managing the tasks of career decision-making. The following section provides a summary of the theoretical foundations of the scale, its structure, reliability and validity. The assessment manual (Betz & Taylor, 2012) provides a more in-depth review of these topics.

Theoretical Foundation

The CDSE is grounded in Albert Bandura’s theory of self-efficacy expectations (1977) and John Crites’ Career Maturity Inventory (1978). Taylor and Betz integrated these two theories to con-
struct a tool that measures self-efficacy as it relates to specific career choice tasks. According to Bandura (1977) self-efficacy may be understood as a person’s psychological belief about their ability to master a task, and impacts both the initiation and persistence of behavior. Low self-efficacy can lead to avoidance of certain behaviors, while high self-efficacy is more likely to result in increased attempts at behaviors. For example, a student who is not confident in their public speaking skills may avoid choosing classes that require presentations, whereas a student who is more certain of that ability may seek out opportunities to use verbal communication skills.

Measures of self-efficacy can predict behavior in a variety of domains, such as career decision-making (Hackett & Betz, 1981). The assessment developers used elements of the Career Maturity Inventory (CMI) to operationalize career decision-making and define specific tasks to assess for career self-efficacy. The CMI proposes that individuals who possess both mature attitudes toward the process, and the necessary comprehension abilities, will make career choices that align with their goals (Crites, 1978). Crites organized these abilities into five competencies: accurate self-appraisal; gathering occupational information; goal selection; making plans for the future; and problem solving. These five competencies comprise the subscales of the CDSE.

Scale Structure
The original long form version of the CDSE is a 50-item questionnaire that consists of five subscales with ten items each. The five subscales are:

- **Self-appraisal:** The ability to accurately evaluate one's own abilities, interests, and values related to educational and career decisions.
- **Occupational Information:** The ability to locate sources of information about college majors and occupations, including the ability to identify and talk with people employed in the occupations of interest.
- **Goal Selection:** The ability to match one's own characteristics to the demands and rewards of careers to identify one or more majors or careers to pursue.
- **Planning:** The ability to implement an educational or career choice, including enrolling in educational programs, job searching, resume writing, and job interviewing.
- **Problem Solving:** The ability to figure out alternative plans or coping strategies when plans do not go as intended.

(“Our Products,” 2017)

Respondents indicate their ability to complete each task on a ten-point scale ranging from ‘No Confidence’ (0) to ‘Complete Confidence’ (9). Higher scores reflect behaviors the respondent considers “easier”. A 25-item short form version of the questionnaire was later developed (Betz, Klein, & Taylor 1996) to be used as a pre-post measure of career interventions. It consists of five items per subscale and a five-point confidence continuum (’No Confidence’ - 1 to ‘Complete Confidence’ - 5). The long and short forms both produce six scores, one for each subscale and an overall score.

Reliability & Validity
The assessment developers normed the instrument on college students at a private liberal arts university and a large public university. No significant gender differences were found, nor were there any differences among students enrolled in each school type. A thorough discussion of the
content, concurrent, and construct validity of the tool can be found in the CDSE manual (Betz & Taylor, 2012). Internal consistency reliability coefficients (alpha) ranged from .86 to .89 for the subscales and .97 for the total scale (Taylor & Betz, 1983). Test-retest reliability was also high, as one report found a .83 coefficient for the total score after six-weeks (Luzzo, 1993).

The assessment developers cite various studies supporting the five-competency structure, as well as research that suggests the CDSE is a “generalized career self-efficacy measure” (Taylor & Popma, 1990, p. 28). Based on this support, Taylor and Betz conclude that the total CDSE scores can be used to identify “at-risk” clients regarding career decision-making, and the five subscale scores can be used to design interventions that “teach” to each of the five career decision competencies (Betz & Taylor, 2012, p. 9).

Implementation of the CDSE with a Career Course
Since the spring 2015 semester, the Georgetown University Cawley Career Education Center has been offering a non-credit, nine-week career development course to undergraduate students. Initially offered to students who self-identify as first-generation college students (the first in their immediate family to attend college), the course was opened to all sophomores, regardless of first-generation status in spring, 2017. The purpose of the course is to engage undergraduate students in a holistic career development learning experience with assessments, small group discussions, and written reflections. The first half of the course focused on self-exploration with sessions on values, interests, skills, and decision-making. The second half of the course introduced a variety of career-related topics including résumés and cover letters, interviewing, job search resources, and networking. In the final class, students developed an individualized action plan for pursuing their career goals. The course learning objectives included:

- To develop self-awareness and understand how personal characteristics such as interests, personality, values, skills, and accomplishments influence career development.
- To identify career resources and learn how to research and explore academic majors and careers options.
- To explore personal decision-making style and articulate factors that affect decision-making.
- To draft professional documents including résumés and cover letters.
- To conceptualize and articulate a professional brand in person and through online platforms.
- To practice and acquire skills for successful interviewing.
- To understand the value of networking and to learn networking strategies and resources.
- To develop and implement a customized career development plan.

Two assessments were used to evaluate student outcomes in the initial offering of the course: the Career Decision Scale (Osipow, Carney, & Barak, 1976) and My Vocational Situation (MVS) (Holland, Daiger, & Power, 1980). Due to the similarity of the two assessments and the lack of support for the MVS, the Career Decision Self-Efficacy Scale was proposed as a replacement for the MVS beginning with the fall 2016 course. The subscales of the CDSE corresponded well with the learning objectives of the course and therefore it could more accurately assess the impact of the course on students’ confidence about career decision-making activities.

Findings
The Career Decision Self-Efficacy Scale Short Form was administered to students enrolled in the
fall, 2016 and spring, 2017 sections of the career development course. 29 undergraduate students completed the pre- and post-assessments. The participants consisted of 23 females and 6 males ranging in age from 18 to 21 with each undergraduate class level represented: 5 seniors; 3 juniors; 20 sophomores; and 1 first-year.

Table 1 shows the pre- and post-test mean of scores for the five subscales and the total CDSE score for all students. There was a significant (p < 0.05) increase in the post-test means on all of the subscales and the total CDSE score, indicating that the course increased students’ self-efficacy. Post-test means ranged from 3.8 to 4.3, indicating a moderately high degree of career decision self-efficacy on all scales. The highest mean score (before and after) was on the Occupational Information scale. The largest increase in mean score was on the Planning scale, while the Problem Solving scale showed the smallest increase.

Table 2 shows the mean scores for each of the two groups taking the course. Group 1 (N = 14) consisted of first-generation students representing all class years, while Group 2 consisted of only sophomores (N = 15), regardless of status as first-generation. The range of means for Group 1 was slightly higher than Group 2. There were significant increases on all of the subscales and the total CDSE score. Occupational Information had the highest means for each group, while Problem Solving remained the scale with smallest difference between pre- and post-test. For Group 1, all scales but Problem Solving showed the same amount of increase, whereas Planning and Goal Selection were the subscales with the greatest increases for Group 2.

Discussion
The rise in scores on the CDSE indicate participation in the nine-week course had a significant effect on the self-efficacy of students. Scores increased overall, as well as on each subscale, suggesting the course provided enough information about the various aspects of career choice to improve students’ confidence. It is notable that the sophomore students showed the greatest increases on the Planning and Goal Selection scales, which may be a reflection of developmental level. Since students are expected to select an academic major and begin working towards specific degree requirements in their second year at Georgetown, thoughts about long-term career plans may begin to surface and become prominent at this time. The data support that participation in the career development course may be a suitable intervention for students in this developmental phase as second-year students reported feeling more confident about selecting and working towards career goals. The increase in confidence for tasks such as “prepare a good résumé” and “talk with a person already employed in a field you are interested in” may indicate that students not only learned about resources to complete these tasks; but also felt more confident in their ability to utilize those resources.

Limitations
Due to the small sample size of this study, it is difficult to draw any conclusions that could be generalized to a specific population. In addition, because it was a convenience sample of students who self-selected into the course, they may differ from the general student population regarding career self-efficacy and engaging in career-related tasks. Future reviews of the course using the CDSE may incorporate qualitative data as well in order to more clearly understand how the course influences student confidence regarding career decisions.
Table 1. Pre- and Post-test CDSE Means for All Career Course Students.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Students (N = 29)</th>
<th>Pre-test Mean</th>
<th>Post-test Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Appraisal</td>
<td>3.1</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Occupational Information</td>
<td>3.3</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Goal Selection</td>
<td>3.0</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>3.0</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Problem Solving</td>
<td>3.1</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Total CDSE</td>
<td>3.1</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: Scale scores represent average scores and can range from 0 (No Confidence) to 5 (Complete Confidence).

Table 2. Pre- and Post-test CDSE Means for Two Groups of Career Course Students.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Group 1 (N = 14)</th>
<th>Post-test Mean</th>
<th>Post-test Mean</th>
<th>Group 2 (N = 15)</th>
<th>Post-test Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Appraisal</td>
<td>3.2</td>
<td>4.1</td>
<td>2.9</td>
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<tr>
<td>Occupational Information</td>
<td>3.5</td>
<td>4.4</td>
<td>3.3</td>
<td>4.1</td>
<td></td>
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<tr>
<td>Goal Selection</td>
<td>3.1</td>
<td>4.0</td>
<td>3.0</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>3.1</td>
<td>4.0</td>
<td>3.0</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Problem Solving</td>
<td>3.2</td>
<td>3.8</td>
<td>3.1</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Total CDSE</td>
<td>3.2</td>
<td>4.1</td>
<td>3.1</td>
<td>3.9</td>
<td></td>
</tr>
</tbody>
</table>

Note: Scale scores represent average scores and can range from 0 (No Confidence) to 5 (Complete Confidence).

Discussion

Final Thoughts

The Georgetown Cawley Career and Education Center staff is considering the use of the Career Decision Self-Efficacy Scale to evaluate other services in addition to the career course described in this paper. The assessment developers indicate the CDSE is appropriate for group and individual interventions, such as educational workshops and career counseling (Betz & Taylor, 2012). In one-on-one career counseling sessions, it may act as a guide for future discussions by highlighting areas where the student/client is less confident. It may also be useful to administer the CDSE multiple times to students/clients to observe change throughout the counseling process, and to distinguish any differences between those students/clients who engage more or less frequently with career services.

Career professionals who work with young adults, adults in transition, or clients experiencing a period of critical career decision-making might consider using the CDSE to evaluate the impact...
of their services. It may aid in capturing the effectiveness of an intervention and could be used to empower clients as they navigate career decisions. Although the assessment developers recommend viewing CDSE scores as generalized confidence indicators, assessment results may provide insight into how interventions might be constructed to address the various tasks involved in career decision-making. Use of the CDSE as a program evaluation tool may help provide structure for a multi-part career course or series of courses.

References


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FOSTERING INTENTIONALITY IN CAREER ASSESSMENT THROUGH COUNSELING SUPERVISION
by Seth C.W. Hayden

Various forms of career assessments are commonly utilized within career services. The identification and verification of individual characteristics are the main information provided by career assessment results (Osborn & Zunker, 2016). The National Career Development Association (NCDA) Code of Ethics (Section E; 2015) posits the appropriate use of career-related assessments as an ethical mandate within career service delivery. The Career Counselor Assessment and Evaluation Competencies (2010) adopted by NCDA and the Association for Assessment and Research in Counseling (AARC) specify career counselors’ necessary capabilities for the appropriate selection, administration, and interpretation of career-oriented assessments. The preamble to these competencies describes effectiveness in assessment and evaluation as “critical to effective career counseling” (NCDA, 2010), meaning the necessity of focused attention on competent intentionality when employing assessment in career services cannot be overstated. Clinical supervision offers a means in which to foster intentionality in the career assessment process.

The eight Career Counselor Assessment and Evaluation Competencies cover a wide range of aspects of the assessment process. The competencies specify that “Career counselors are skilled in choosing assessment strategies (competency 1), identifying, accessing, and evaluating the most commonly used assessment instruments (competency 2), using the techniques of administration and methods of scoring assessment instruments (competency 3), interpreting and reporting assessment results (competency 4), using assessment results in decision making (competency 5), producing, interpreting, and presenting statistical information about assessment results (competency 6), engaging in professionally responsible assessment and evaluation practices (competency 7), and using assessment results and other data to evaluate career programs and interventions (competency 8)” (NCDA, 2010). Specific indicators of skills that constitute competence are also indicated within each competency. Given the importance of intentionality within assessment utilization, the question arises as to the means in which these competencies and skills are developed. The level of attention in our professional standards, along with the specific competencies for effectively integrating assessment tools in career services, designates the need for effective support to foster intentionality in career assessment delivery.

Intentionality and the Components of the Assessment Process
To inform intentional use of career assessments and provide some structure to this process, an un-
nderstanding of the elements of the assessment process and associated considerations is necessary. The main components of the assessment process include selection, administration, interpretation, communication of findings, and outcome assessments (Hays, 2013). Considering the emphasis professional and ethical standards place on the critical nature of assessment effectiveness, practitioners must be intentional as they interact and perform the tasks associated with each component.

Selection is characterized as the decision-making process career practitioners use throughout the counseling relationship to support client evaluation and treatment planning using a broad range of assessment methods (Hays, 2013). Wilson, Tang, and Wilson (2013) offered the following factors for consideration in the selection of a career assessment instrument: 1.) purpose of the assessment, 2.) client factors (e.g., the manner in which a client approaches the assessment process; understands the instructions and the item content; and responds to the questions completely, consistently, and accurately), 3.) counselor factors (e.g., assessing quality of fit of the assessment to the client needs, possessing a clear and coherent theoretical approach to career assessment and guidance, assessing and maintaining rapport with the client, and the ability to help the client make meaning from the assessment experience), 4.) the technical quality of the test, and 5.) the limitations of the testing context and environment. These factors help provide a structure around the selection process, which can guide a practitioner in choosing the most appropriate career assessments to address a client’s needs. Whiston (2001) indicated a primary requirement for the assessment to be connected to the goals of treatment.

Administration is somewhat more abstract due to the varying nature of the assessment process which is modified according to audience, purpose, and format. Administration includes the steps involved in introducing and having the client complete the assessment instrument. Practitioners must be familiar with the instructions and possess the requisite knowledge and skills as test administration can vary greatly depending on the test (Hays, 2013).

Interpretation includes an evaluation of assessment data from a variety of methods. Interpretation of this information is much more than simply scoring an assessment, but involves the intentional integration of content throughout the supportive engagement to enhance the therapeutic benefits of this process (Hays, 2013).

Communication of findings, when done effectively, can yield richer dialogue and better treatment planning (Hays, 2013). Assessment findings may be communicated informally during a counseling interaction or formally in the generation of an interpretive report, and may lead to the identification of additional assessment procedures of benefit to the client. Effective communication of findings employs the assessment data to empower the client to be an active participant in their career development decision-making and problem-solving. Related to the broader meaningful integration of assessment results in the counseling process, a career practitioner might consider the conceptual model offered by Osborn and Zunker (2016) involving the four major steps of analyzing needs, establishing the purpose of testing, determining instruments, and Utilizing results.

Enhancing Competence in the Assessment Process
Given the complexity of the assessment process, a framework in which to monitor the develop-
ment of a career counselor-in-training’s competence in all aspects of assessment is warranted. There are certain tangible steps any career counselor can take to learn about a measurement instruments. Osborn & Zunker (2016, pg. 3) provide the following recommendations to enhance knowledge of an assessment:

1. Take the instrument yourself and have a trained professional review the results.
2. Thoroughly read the professional manual.
3. Administer the assessment to a friend or colleague practicing how to explain the purpose of the assessment.
4. Look for any flaws in the manner in this the instrument is administered.
5. Learn how to interpret the instrument by going over the results of a friend or colleague with them.
6. If there is an interpretive report, practice examining this information seeking out additional resources to explain this information to a client if needed.
7. Access information on the developer’s website or within the academic literature regarding empirical research on the inventory.
8. Join relevant social media sites of other practitioners who utilize assessments along with instrument publishers to stay updated on assessment information.
9. Attend professional conferences, webinars, or other sources of information on frequently utilized assessments.

In addition to continued engagement with the actions listed above, frequency of focus on the assessment process itself has been linked to competence within career assessment utilization. For example, Etheridge and Peterson (2010) found that 30 administrations of the Career Thoughts Inventory (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996) was needed to attain level of competence indicative of an ability to integrate the career assessment with the client’s presenting problem.

Counseling supervision is a mechanism in which to facilitate competence in the utilization of assessments. The supervisory relationship offers a dedicated space to explore the affective and cognitive responses of the trainee as they learn from a more seasoned professional of strategies for effective utilization of career assessments.

**Supervision of Career Assessment Delivery**

In the context of supervision, focusing on the intentionality of a trainee throughout the assessment process can enhance competence. Evaluating trainees in relation to the specific components of career assessment delivery and providing individualized support to match trainee needs may be a useful schema for supervision.

Career counseling supervision within career services provides a venue in which the prescribed components of effective assessment utilization can be addressed and monitored. The supervision process involves an intervention provided by a more senior career counselor to a more junior-level practitioner with the aim of enhancing the quality of functioning of the more junior member and monitoring the quality of services administered to the trainee’s client (Bernard & Goodyear, 2014; Bronson 2010). Within career development services specifically, Hoppin and Goodman
(2014) outlined the application of clinical supervision to career services professionals with specific attention to the need for supervisors to possess knowledge of the appropriate application of an assessment prior to supervision of a trainee in its administration. Supervision allows for a comprehensive examination of a trainee’s competence in career assessment utilization.

The connection between assessment competence and clinical supervision has been discussed within the career services literature (Hayden & Kronholz, 2014). Various techniques such as role plays to foster competence in career assessment administration can be facilitated within supervision to replicate the process of introducing, processing, and integrating assessment results throughout the career-focused counseling process. Willingness to attend to areas of growth for trainees in the selection, administration, interpretation, and communication of career assessment results is critically important to their development as competent career practitioners. “Assessing the competence level of trainees, processing strategies for competence development, and ongoing attention to this topic typify effective supervision of career assessment delivery” (Hayden & Kronholz, p. 165).

**Frameworks for Career Assessment Supervision**

A supervisor must possess a framework in which to conceptualize the needs prior to providing individualized support. Intentionality is essential both on the part of the supervisor and trainee when engaging in this process. Employing supervision theories can enhance a supervisor’s capacity to identify areas of growth in the effective utilization of career assessments. This is particularly important when considering both the triumvirate affected by the supervision process (supervisor, trainee, client/students) and the complex developmental needs of trainees.

Various supervisory approaches and models offer a structure in which to conceptualize the trainee development process. Interpersonal Process Recall (Kagan, 1980, 1984) entails reviewing recordings of helping interactions using discovery-oriented questions to encourage reflection and here-and-now processing of trainees’ covert feelings and thoughts. Integrative Developmental Model (IDM; Stoltenberg & McNeill, 2010) involves targeted supervision interventions based on the development stage of the trainee, moving from rigid (Level 1 therapist) to more flexible (Level 3i therapist) approaches to helping. Assessing Motivation, Self-Other Awareness, and Autonomy of the trainee to inform supervision strategies characterize the IDM approach. The Discrimination Model (Bernard & Goodyear, 2014) consists of the fluctuating role of the supervisor (i.e. Teacher, Consultant, and Counselor) based on a trainee’s needs with the purpose of enhancing development in specific areas of focus for skill building; process, conceptualization, and personalization.

While Interpersonal Process Recall, IDM, and the Discrimination model characterize the more commonly mentioned supervisory approaches to date, additional models such as Ronnestad and Shohola (2003), the Common Factors Discrimination Model (Crunk & Barden, 2017), and approaches involving the Wellness Model (Blount & Muller, 2015; Hayden, Williams, Canto, and Finklea, 2015; Lenz and Smith, 2010) offer a broad repertoire of methods for fostering intentionality in career-focused counseling and specifically career assessment utilization. Regardless of the selected approach, enhancing competence in career assessment utilization through a delineating framework enables the supervisor to be effective and efficient in this process.
Better Practices to Foster Intentionality

Though there exists a paucity of empirical research related to the process of career assessment supervision, the following “better” practices (in italics) provide a guiding schema to foster intentionality in career assessment utilization through the mechanism of clinical supervision. The suggestions below enable the supervisor to systematically assess, remediate, and direct future learning as it relates to career assessment competence.

Eight better practices, organized in two phases, are proposed to foster growth in career assessment delivery. The Context Phase involves the development of an appropriate supervisory context in which to engage in this process. The Practice Phase comprises an ongoing focus on career assessment utilization in the supervisory alliance. Though these practices are presented sequentially, being responsive to the needs of the trainee allows for nonlinear movement throughout this process.

Context Phase.
Developing rapport with a trainee by establishing a foundation for affective and cognitive processing of career assessment delivery experiences is critical to creating an environment for growth. Though there is often an evaluative aspect to supervision, encouraging authentic dialogue enables appropriate and prompt response to the career assessment utilization needs of the trainee. Evaluating the assessment utilization competence of the trainee is needed to establish a baseline in which to build individualized supervision interventions. The collaborative generation of supervision goals, focused on enhancing intentionality in assessment utilization, allows for a shared investment on the part of supervisor and supervisee in the developmental process. The supervisory alliance requires ongoing monitoring on the part of the supervisor and may require attention at several points of this supportive engagement.

Practice Phase.
The practice phase involves a focus on the actual utilization of career assessments. Continual monitoring of assessment utilization within supervision enables the trainee to develop competence. As Etheridge and Peterson (2010) found, ongoing and frequent attention to a trainee’s administration of career assessments is necessary to reach a level of competence in which results are meaningfully integrated in service delivery to address the client’s presenting problem. Developing individualized interventions to address areas of growth related to intentionality in career assessment utilization is a hallmark of effective supervision of practice. Ensuring the trainee’s integration of assessment competence into a helping framework may seem aligned with the previous practice of focused interventions, but is distinguished by its emphasis on the importance of integrating assessment utilization into a theoretical approach to helping. Supervisor and trainee continual monitoring of progress toward supervision goals related to assessment integration is essential to developing trainee competence. Collaborative identification of resources for growth in assessment utilization enables a trainee to continue developing competence in this aspect of career services beyond the context of supervision. As previously mentioned, though presented in a sequential structure, this process will likely involve moving back and forth as needs emerge. Responsive supervisory support is paramount. Adaptation of these practices to best suit the supervisory alliance allows for a fluid framework in which to enhance trainee competence in career assessment utilization.
Conclusion
Assessment utilization is a significant aspect of career services. There are instances in which assessment offers a means in which to learn more about relevant interests, personal characteristics, skills, and values that can inform career decision-making. With this in mind, ensuring competent use of these instruments is essential. Supervisors possess the capability to positively influence the development of competence in the assessment component of service delivery. Utilizing a structure for fostering intentionality enables a supervisor to effectively and efficiently attend to the needs of the trainee. Competent utilization of career assessment enhances the quality of helping greatly benefitting those who access career services.

References


About the Author

Seth C.W. Hayden, PhD, is an assistant professor of counseling at Wake Forest University. He earned his doctoral degree in counselor education at the University of Virginia. He has provided career and personal counseling in community agencies, secondary school, and university settings. He is a licensed professional counselor in North Carolina and Virginia, a national certified counselor, a certified clinical mental health counselor, and an approved clinical supervisor. His research focuses on the career and personal development of military service members, veterans, and their families. In addition, he explores the connection between career and mental health concerns as well as the use of clinical supervision to foster growth in the development of interventions. He is a co-author of two NCDA monographs, *Career Development for Transitioning Veterans* and *Group Career Counseling: Practices and Principles*, as well as articles in the *Career Development Quarterly*. He is a past-president of the Military and Government Counseling Association, a division of the American Counseling Association. He has also served as a co-chair of the NCDA research committee and the NCDA Commission on Preparing Career Counselors. He currently serves on the board of NCDA as the Trustee for Counselor Educators and Researchers.

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