Vocopher: The Career Collaboratory

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Abstract

Vocopher: The Career Collaboratory is an Internet-based website (http://www.vocopher.com) that contains free career instruments and educational materials intended for practitioners, researchers, and teachers of career development. The instruments include inventories and tests designed to measure the processes that shape career development and work adjustment. Measures of content, such as interests and values, are not included. The Internet site also includes a multimedia library that contains video and audio presentations from conferences on vocational psychology and career counseling. The library also contains memorials to and presentations by important figures in the history of counseling psychology.

Keywords

Introduction

Vocopher: The Career Collaboratory is an Internet-based website (http://www.vocopher.com) that contains free career inventories and educational materials. Savickas named the website "Vocopher" in tribute to the first textbook on vocational guidance. In a book titled *Vocopher*, Lysander Richards (1881) called for a new profession of "vocophy" in which practitioners called "vocophists" would provide vocational guidance to youth. The Vocopher website, founded in 2004 by Savickas and Glavin, provides career resources for educators, researchers, and practitioners. Professors will find theoretically based teaching materials suitable for use in Career Counseling and Counseling Assessment courses. Career educators and counselors have access to inventories that they may administer online to assist students career exploration, career planning, and decision making. Researchers may use these web-based instruments to collect data in an efficient and effective manner.

Over the last 20 years, advances in technology, among other factors, have resulted in unstable and unpredictable career trajectories for individuals in the work world. Technology has changed the way people learn, conduct business, communicate, and interact with society. Although some people embrace these changes, other people tread with caution, slowly adapting to the new age of

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digitization. However, one must adapt. We need only to look as far as grade school children who learn as young as 5 years old to use technologies such as PowerPoint and the Internet. Imagine what they will be learning within the next decade? Career professionals would do well to track and understand these technological changes and use them to their benefit.

One technology in particular, the Internet, has sparked a revolution in the way individuals conduct their everyday lives. Originating in the 1960s, the Internet did not gain widespread consumer attention until approximately 1995 with the appearance of Mosiac, the first user-friendly graphical interface. Mosaic became known as the first Internet browser and has since been replaced by more powerful software such as Internet Explorer, Firefox, Opera, and Chrome. Interestingly, the developers of Mosaic provided their software free of charge, a standard business practice that remains in effect today for most companies that develop browser software.

Innovative Internet technology during Mosaic's reign included simple webpages, comprised of plain text and images. Soon developers added audio and animated images. Despite these advances, the Internet started out predominantly as means of communicating and disseminating information. This helped academics in particular to share their work and collaborate with one another. Not until powerful programming languages appeared did individuals realize the full potential of the Internet. Companies quickly realized that users did not want to be passive consumers of online content. Rather, they preferred to be active participants able to search and extract only the desired information. Other people wanted a more interactive experience in which they could add, edit, and delete content. Consumers quickly began to demand more control over their Internet experience.

Fortunately, many entrepreneurs possessed the foresight to attend to consumers' demands. This resulted in the rapid expansion of website development witnessed since the late 1990s and early 21st century. Websites began to include web applications. Whereas websites host information, web applications allow users to interact with and manipulate data to achieve some end goal. The rapid growth of web applications saw many ventures fail. Those that thrived provided basic, simple services to help individuals accomplish online everyday life tasks such as banking, shopping, booking reservations, and scheduling appointments. Other companies kept things simple, yet grew at a tremendous rate because they tapped into undiscovered consumer markets. Examples include sites such as Google® (http://www.google.com), a simple search engine; YouTube® (http://www.yahoo.com), a basic site that hosts short video clips; Facebook® (http://www.facebook.com), a social networking platform, and Wikipedia® (http://www.wikipedia.com), an educational site where users determine the content.

Vocopher attempts to integrate the goals of the early adopters of the Internet with the popularity of web-based applications. As such, Vocopher provides a platform for career practitioners to collaborate with one another by providing free web-based applications and educational materials. A brief history of Vocopher explains how the developers conceived the project and describes how it has grown from a few users in the United States, to thousands of users worldwide.

The History of Vocopher

Similar to the early pioneers of web development, the developers of Vocopher realized the potential of the Internet to help career professionals enhance services related to career education, research, and practice. With the passing of prominent theorists such as Donald E. Super and John O. Crites, a concern arose that their inventories might fade from use. This alarmed the authors because these theorists spent a lifetime developing quality career instruments based on empirical research. At a time when we hear that the counseling community is calling for evidence-based interventions, the authors believed that the field could not afford to let such valuable resources be retired to the archives of history.

This could easily have happened because the original theorists could not promote their work. Consequently the use of their instruments declined over time. Their theories continued to be discussed in career textbooks, yet the instruments that operationally defined the theoretical constructs became harder to find. Furthermore, the original developers designed their instruments in the traditional paper-and-pencil format. However, the inventories required machine scoring, which only the publishing companies could provide. As demand for the instruments declined, the publishing companies eventually returned the copyrights to some of these instruments. The copyright holders, in turn, generously donated their works to Vocopher. Project Vocopher began in earnest as Glavin converted these paper-and-pencil instruments to web-based applications. Using the original career instruments and their scoring keys, Glavin re-engineered the instruments such that they could be taken online. Given the limited resources, the re-development of each instrument took time. However, the developers knew the Internet would help make these tools available to a much wider audience and for free. Furthermore, re-engineering the instruments for online use resulted in a more effective and efficient scoring system because software algorithms allowed scores to be calculated and displayed in real time. This allows users to receive their results immediately and negates the need to send completed worksheets to publishing companies for scoring.

With help from a web designer, Brian Yuhnke, and a software programmer, Paul Glavin, the project gathered momentum. Painstakingly, the programmers re-engineered each inventory and test such that individuals could complete them online. The developers made every effort to present the instruments exactly as they appeared in their original format. Concentrating on one instrument at a time, the team developed, tested, and made the instruments available online. Keeping in tradition with the original developers of Mosaic, Vocopher now provides free access to the Adult Career Concerns Inventory (ACCI); Career Development Inventory, College and School forms (CDI); Career Mastery Inventory (CMAS); Career Maturity Inventory (CMI); Salience Inventory (SI); and Work Adjustment Test (WAT), and Work Adjustment Sentence Completion. Vocopher also provides technical manuals for most of these instruments. A discussion of each instrument follows in the next section.

The Inventories and Tests

Salience Inventory

The Salience Inventory (Super & Nevill, 1986) was donated to Vocopher by Dorothy Nevill. The SI measures the relative importance that individuals place on five life-career roles: studying, working, community service, home and family, and leisure activities. Studying includes taking courses, going to school (day or night classes, lectures, or laboratory work); preparing for class, studying in a library or at home; and independent studying, formally or informally. Working includes activities completed for paid profit from a job. Community service includes activities with community organizations such as recreational groups, Scouts, Red Cross, social service agencies, neighborhood associations, political parties, and trade unions. Home and family includes taking care of one's room, apartment, or house; fixing or cleaning up after meals; shopping; caring for dependents such as children or aging parents. Leisure activities include taking part in sports; watching television; pursuing hobbies; going to movies; theater, or concerts; reading; relaxing; being with ones family or friends.

The original SI contained 170 items grouped into three sections: Participation, commitment, and value expectations. It takes approximately 40 min to complete. Participation items measure the relative amount of time and energy individuals spend on each of the aforementioned career-life roles. Commitment items measure the relative emotional attachment individuals assign to each of the roles. Value expectation items measure the relative amount of value individuals expect to receive

from engaging in each of the roles. To reduce the repetitiveness of the original SI, and decrease the time to complete the instrument, the developers of Vocopher created a shorter version of the SI using only the items from the participation section. The developers chose this section because they believed participation most accurately defined the relative importance of each of the career-life roles. This reduced the number of items to 50. The participation section of the SI takes approximately 15 minutes to complete and provides scores for each of the five career-life activities. Vocopher offers both versions of the SI to users.

Faculty may use the SI when they teach graduate students about Super's (1990) life-career rainbow or life-design counseling (Savickas et al., 2009). The SI helps practitioners assess the relative importance of each of the five domains that structure most individuals' lives. Results can help individuals examine the impact of one life role on another. This examination opens discussion and enables individuals to make informed choices. For example, people who want to return to higher education might start thinking about the sacrifices they will need to make in their other life roles. The SI also helps individuals and practitioners identify possible conflicts between life roles and discuss how best to resolve these issues. Furthermore, individuals may not place as much value on the work role. Discussing this with a career practitioner may negate the need for further assessment. Super and Neville considered work role salience as a basic readiness or foundation for emerging career maturity. If the work role lacks salience for an individual, then there is little or no need to assess that person's career maturity or vocational interests, because working does not attract them. Individuals who show a basic readiness to work must develop the readiness and resources to make fitting educational and occupational choices. The degree of development of these attitudes and competencies are measured with career development inventories.

Career Development Inventory

The Career Development Inventory (Super, Thompson, Lindeman, Jordaan, & Meyers, 1981) was donated to Vocopher by Albert Thompson and Roger Myers. The CDI represents a popular instrument for measuring the development of attitudes toward and competencies for making career choices. The instrument focuses on how individuals make career decisions, rather than the actual decision itself. The CDI scores indicate an individual's readiness to make educational and vocational decisions. Super believed the process and content of a career decision to be two different constructs. Content inventories measure an individual's interests, whereas process inventories measure how individuals make occupational choices. Both constructs deserve attention. However, Super argued for measuring readiness before assessing interests. He based this argument on the premise that individuals need to explore and plan before they can crystallize realistic interests on which to make sound educational and vocational decisions.

Vocopher provides two versions of the CDI: a high school form and a college and university form. The content of the two forms differs slightly based on the level of education. With 80 items, the CDI takes approximately 40 minutes to complete. On completing the instrument, individuals receive results for 4 scales. The Career Planning scale measures the amount of thought and planning individuals have given toward making a career decision. The Career Exploration scale measures the degree to which individuals have made use of quality resources in their career exploration. The Decision Making scale measures the ability to make rational decisions based on case studies of individuals faced with making career choices. The World of Work scale measures fund of information about the work world and occupations.

Originally, the CDI came with an optional Part II. Because Part I (i.e., the 4 scales mentioned in the previous paragraph) took students a full class period to complete, few counselors administered Part II. Nevertheless, the CDI Part II, Knowledge of Preferred Occupation (PO), is a quite useful inventory. The amount of knowledge that students possess about an occupational field that they prefer may be the

best single indicator of career maturity, that is, readiness to make a decisive and realistic choice. The CDI Part II contains 40 items, takes approximately 40 min to complete, and provides individuals with a single score that indicates the amount of information they possess about their preferred occupation. It does not measure an individual's knowledge of a specific occupation, rather it addresses knowledge about a particular group of related occupations. Prior to starting the inventory, individuals identify their preferred occupation group from a list of 20 groups exemplified by 8 specific occupations. After responding to 40 generic items, the scoring scheme evaluates their responses relative to the occupational group that they indicated. Although the CDI measures career maturity among high school and college students, Super also saw the need to address the degree of vocational development among adults. This resulted in construction and development of the next inventory.

ACCI

To identify the career issues that most concern an individual, Super, Thompson, and Lindeman (1988) constructed the ACCI. Albert Thompson donated the ACCI to Vocopher. The inventory contains 60 items and takes between 10 and 25 minutes to complete. The items ask individuals to indicate their degree of concern about coping with the vocational development tasks articulated in Super's model of career stages. As individuals move in and out of occupational positions, they recycle through the career stages of exploration, establishment, maintenance, and disengagement. Thus, the ACCI measures the degree of concern about exploring, establishing, maintaining, and disengaging an occupational position. The results provide an agenda for career intervention. An individual's highest score indicates the focus of the career intervention. To delineate the goals of the intervention, each of the four career stages is operationally defined by three vocational development tasks. The tasks are each measured by 5 items.

The three tasks of vocational development for the exploration stage are crystallization, specification, and implementation. The career stage of exploration requires that individuals crystallize a vocational self-concept and translate it into a general preference for a group of similar occupations, then reduce that group to choose a specific occupation from the preferred group, and eventually implement the specified choice by securing a position in that occupation. The three vocational development tasks in the establishment stage are stabilizing, consolidating, and advancing. The developmental tasks of the establishment stage direct individuals to adapt to their organizational culture and perform the work required in their positions, then consolidate a conscientious and disciplined work ethic while establishing friendly and collaborative relationships, and in due course show initiative to gain promotion. The three vocational development tasks for the career stage of maintenance are not characterized by progression, rather they deal with preservation. The developmental tasks address the manner in which individuals seek to maintain their current positions. The three maintenance tasks are upholding, updating, and innovating. Upholding connotes just holding on to the position by doing the minimum necessary. Updating knowledge and skills means keeping up with new developments in one's field through continuing education and training. Innovating means finding new ways to do familiar tasks by using technology and creative ideas. Finally, the career stage of disengagement involves leaving one job or occupation to move to another job or occupation, and in due course eventually move into retirement living. The first vocational development tasks of the disengagement stage involves slowing down and turning over some tasks and responsibilities to younger colleagues. The final two developmental tasks involve leaving a position and either entering a new position or retiring.

The ACCI is quite useful for career educators who teach high-school and college students about career development. The ACCI provides a lesson plan and materials with which to orient students to their current and imminent developmental tasks. Professors of counseling and of human resource management may also use the ACCI to teach graduate students about Super's theory of career stages and model of recycling through the vocational development tasks. Career coaches may use the ACCI

to determine which concerns they should address with clients who are making or need to make an occupational transition. The ACCI helps identify the career stage and vocational development tasks that most concern an individual. If a counselor or researcher already knows that a client is in the establishment stage, then it is more useful to administer an inventory that concentrates on the coping behaviors required to master the tasks of stabilizing, consolidating, and advancing in an occupational position.

CMAS

The CMAS (Crites, 1982) was donated to Vocopher by John Crites. The CMAS identifies the specific coping behaviors that individuals must perform to establish themselves in an occupational position. Once the excitement of entering a new employment position subsides, individuals face the reality of performing the required routines. Stressors await individuals who have just started a new position, and the CMAS can help individuals address these issues. The instrument contains 90 items answered on a 5-point Likert scale. It takes approximately 30 min to complete. The CMAS measures the coping behaviors needed to master the three vocational developmental tasks of the establishment stage as outlined by Super. The CMAS measures two sets of coping behaviors for each developmental task. The two scales for stabilizing in a position are Organizational Adaptability, which measures behaviors used to fit into an organizational culture, and Position Performance, which measures how well individuals attend to their work duties. The two scales for consolidating a position are Coworker Relations, which measures how effectively individuals deal with interpersonal problems on the job, and Work Habits and Attitudes, which measures how dependable individuals are in performing their work duties. The scales for advancing are Advancement, which measures the degree to which individuals try to earn a promotion within their current organization, and Career Choice and Plans, which measures the degree to which individuals try to advance their positions by moving to new organizations. Vocational counselors, career coaches, and human resource managers may use the results to assist new employees develop their careers by concentrating on what they need to do next and how they might do it. If individuals are having trouble establishing their careers because of adjustment problems, then a different inventory may be more useful.

WAT

The WAT (Crites, 1982) was donated to Vocopher by John Crites. The WAT measures the three major coping orientations (cf., Shaffer & Shoben, 1956) that individuals may use in adjusting to problems they encounter at work. The test contains 20 multiple-choice questions and takes approximately 15 min to complete. The questions present individuals with problematic work situations and ask them to choose one of three responses. One response option reflects an integrative orientation in that it resolves the problem and reduces tension and anxiety. A second response option reflects an adjustive orientation because it reduces the individual's tension and anxiety yet does not resolve the problem itself. The third response option reflects a nonadjustive orientation because it neither resolves the problem nor reduces tension and anxiety. Vocational counselors and career coaches may use the results to help individuals examine their approach to coping with problems at work and, if needed, develop new coping behaviors and interpersonal skills.

Work Adjustment Sentence Completion

An earlier version of the WAT consisted of 20 sentence-completion stems. The stems are identical to the 20 situations posed in the WAT. However, instead of having respondents choose among three alternative coping orientations, the projective format has respondents write down what they would

do in each situation. Of course, the sentence completion form does not have an objective scoring key. Counselors must use clinical judgment in assessing the responses. The advantage of this form is that a client's responses more or less accurately describe their behaviors on the job. Although they may orally report that in general they are doing the right things, their written responses to this projective technique reveal in particular what they are actually doing, and often it is not the right thing. Career counselors and coaches use the results to identify specific behaviors that clients may need to reduce or eliminate, and then have clients rehearse more integrative coping behaviors. Teaching and rehearsing new coping behaviors lends itself well to classroom sessions and group counseling situations. School counselors and vocational education teachers may use this form in school-to-work interventions. Discussing the 20 situations and a range of response prepares students to anticipate and cope with typical problems that they may soon encounter on the job.

CMI—A2 Screening Form

The CMI (Crites, 1978) measures career choice readiness for students in grades 6 through 12. The CMI was donated to Vocopher by Crites. Similar to the CDI, the CMI measures the process of making a choice rather than the content of a choice. The items deal with attitudes toward making educational and vocational choices. The CMI contains 50 items and takes approximately 30 min to complete. The results provide a single score, which indicates an individual's readiness to make wise and realistic career choices. Supplemental materials include rationales for teaching students the more mature response to each item and lesson plans for teaching the test in a classroom. Counselors may use the results to screen students, that is, determine their readiness to benefit from taking an interest inventory or make choice among different academic curricula or educational tracks. Teachers may use the CMI to conduct needs analyses and evaluate career education interventions, and conduct research. Researchers have used the CMI in over 400 studies because it provides a quick and reliable indicator to career development among school students.

Access to Vocopher

Access to the inventories and tests, as well as their technical manuals, requires that individuals request an administrator access code at http://www.vocopher.com/admin. The developers of Vocopher consider each application and provide access codes to qualified administrators, namely individuals who hold a master's degree in counseling or a related field. This procedure prevents the general public from gaining access to the instruments. Administrators receive, for free, an access code, and password protected access to the instruments and technical manuals. Then they may use the access code to administer the instruments, as they choose, to their students and clients. The students and clients who use Vocopher can only login and view their own results. Administrators differ from their students and clients in that administrators can login and see all of the results for all of their users. For example, an administrator may be a professor teaching a career counseling class in a master's program. She or he may request access to Vocopher to help students learn the career instruments. In this example, the professor may then provide the unique access code to the students. The students can use the access code to self-register on the Vocopher website, at which point they become "users." In essence, this means that there exist two types of Vocopher accounts: administrator and user. Administrators decide who receives user accounts and can view all user results. Then users have access to the instruments on Vocopher but can only view their own results.

Although there exist a number of obvious advantages in providing online access to career instruments, using the Internet provides other valuable benefits. For example, when individuals complete the CDI, the result screen displays their scores along with hyperlinks to two of the scales, career planning and career exploration. Clicking on these links allows users and administrators to see how

individuals answered each of the questions. This provides administrators with valuable information that they can use to identify the specific task or tasks to which a student should attend. Administrators then may select for each individual an intervention directed at that goal.

In fact, an administrator may not necessarily have to select an intervention for each individual student. Because the system can identify which tasks individuals need most help with, automatic feedback can be programmed to provide individuals with their own particular interventions. Consider the following example. A high school senior completes the CDI and scores low on career exploration, the feedback from Vocopher might show that this is because the individual has only approached friends and family for advice on further education and career. In this case, the system might recommend that the individual consult more appropriate resources such as teachers and school counselors. Individuals scoring below the 25th percentile might be encouraged to make an appointment with a career advisor whereas individuals scoring above the 75th percentile might be directed to advanced web resources. This method of career advising/guidance serves two purposes: the system can provide custom feedback and administrators can use the instruments to provide guidance to large groups of individuals. Although not all of the instruments on Vocopher have these feedback features available, the developers aim to provide more of them in the near future.

Vocopher's Multimedia Library

With Vocopher taking shape, and usage increasing, the developers realized career professionals might use continuing educational materials regarding the inventories and other topics in vocational psychology. To supplement the instruments and manuals, they added a multimedia library to Vocopher. That library hosts a variety of resources available in audio and video formats. The library is not limited to administrators, the public may access the multimedia library. The link to the library (http://www.vocopher.org/resources.htm) appears on the Vocopher home page. These resources provide educators with the opportunity to let students see, hear, and learn from the researchers responsible for many of the career theories they read in their text books. Providing learning resources in this manner brings the material to life, giving students a glimpse of many of the career theorists responsible for shaping career counseling and development over the last 50 years. Contributors to the multimedia library include David Blustein, Edward Bordin, John Crites, Rene Dawis, John Holland, John Krumboltz, Robert Lent, Mark Savickas, Arnold Spokane, and Donald Super.

The library contains a video presentation of the Society for Vocational Psychology's (SVP) inaugural conference entitled *Convergence in Career Theories*. This video, separated into individual segments, contains the last public presentation given by Edward Bordin and by Donald Super. It also contains a presentation in which Rene Dawis gives a masterful précis of the Minnesota theory of work adjustment. A second video shows presentations from and dialogue between David Blustein and Arnold Spokane that contrast the differential and developmental approaches to comprehending vocational behavior and conducting career counseling. Two audio presentations from the SVP conference on *Vocational Interests* have John Holland explain the development of his theory and John Crites explain four ways to assess interests. Also included are audio presentations made by Donald Super in 1974 to explain his theory of career stages and also to describe the CDI and present cases studies. Mark Savickas presents six essays on career construction theory. There are also memorials to John Crites, Donald Super, and David Tiedeman. Materials are being continuously added to the multimedia library to support faculty in teaching vocational psychology and career counseling.

Vocopher Usage Statistics

Given the usage statistics from Vocopher's tracking system, the developers believe that educators represent the most active users of Vocopher's multimedia library. Having launched in June 2008,

Table 1. Number of Completed Instruments by Vocopher Users

Instrument	Completed Entries
Career Development Inventory College School	5,078
Career Development Inventory College Form	1,912
Adult Career Concerns Inventory	1,553
Career Maturity Inventory A2 Screening Form	1,264
Salience Inventory All Sections	725
Career Mastery Inventory	308
Work Adjustment Inventory	241
Salience Inventory Participation	100

usage statistics have been collected from December 2008 to December 2009. &During that time 4,000 unique visitors have visited the site. The total number of visits currently stands at approximately 5,000. The U.S. accounts for most visitors (85%), followed by Canada (4%), and the United Kingdom (3%). Within the United States, California and New York account for the largest number of visits, each receiving 30% and 27%, respectively. Visitor loyalty statistics describe how frequently users have visited the site. For example, 1,263 users have visited the site once only; 403 users have visited between 2 and 5 times; 133 users have visited between 6 and 10 times; 53 users have visited between 11 and 25 times; and over 25 users have visited over 11 times. The main site, which the developers launched in 2004, provides more accurate usage statistics.

For the instruments on Vocopher, over 1,100 administrator applicants have been approved, whereas over 7,800 users have registered for the site. Table 1 provides a list of the number of completed entries for each of the instruments. Organized in descending order, the list shows the CDI School form to be the most popular instrument. Readers should note that the developers created the CDI School and College forms first.

Discussion

Academics comprised many of the early adopters of the Internet. They used the network to share information and collaborate on research projects. Over two decades later, these values still exist, with many academics providing free access to their work. Vocopher represents another such project. All materials remain free, which provides career educators and their students with valuable educational resources. Although many career textbooks cite the theorists and instruments available on Vocopher, the system remains largely underused. The developers attribute this to a lack of finance and time. More researchers could help to revise, refine, and re-norm the instruments currently available. More developers would help to update the system and deliver enhanced feedback to end users. More marketing would help educators, researchers, and practitioners learn about Vocopher. Future research should not only focus on upgrading the current system, instruments, and educational resources but also examine exactly who uses Vocopher and for what purposes.

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References

Crites, J. O. (1978). *The Career Maturity Inventory.* Monterey, CA: CTB/McGraw-Hill.

Crites, J. O. (1982). Testing for career development and adjustment. *Training and Development Journal, 36,* 21-26.

Richards, L. S. (1881). *Vocophy: The new profession.* Malboro, MA: Bratt Brothers.

Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J. P., Duarte, M. E., Guichard, J., ... van Vianen, A. E. M. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational Behavior, 75,* 239-250.

Shaffer, L. F., & Shoben, E. J., Jr. (1956). *The psychology of adjustment* (2nd ed.). Boston, MA: Hough-Mifflin.

Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2nd ed., pp. 197-261). San Francisco, CA: Jossey-Bass.

Super, D. E., & Nevill, D. D. (1986). *The Salience Inventory.* Palo Alto, CA: Consulting Psychologists Press.

Super, D. E, Thompson, A. S., & Lindeman, R. H. (1988). *Adult Career Concerns Inventory.* Palo Alto, CA: Consulting Psychologists Press.

Super, D. E, Thompson, A. S., Lindeman, R. H., Jordaan, J. P., & Meyers, R. A. (1981). *The Career Development Inventory.* Palo Alto, CA: Consulting Psychologists Press.