The Ability Explorer: Translating Super's Ability-Related Theory Propositions Into Practice

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One half of D. Super's (D. Super, M. Savickas, & C. Super, 1996) theoretical propositions that relate to abilities have been operationalized into a psychometric instrument, the Ability Explorer (T. Harrington & J. Harrington, 1996). Interpretations illustrate how D. Super's career development theoretical concepts can be implemented in career counseling.

This is an article about abilities and their importance and use in career counseling. In spring of 2002, career professionals had an opportunity to examine the role that abilities play in career development with the U.S. Department of Labor's release of its aptitude/ability measures as part of the O*NET occupational information system (U.S. Department of Labor, Employment and Training Administration, 2000). O*NET replaced the Dictionary of Occupational Titles (U.S. Department of Labor, 1991). However, the main focus in this article is the Ability Explorer (AE; Harrington & Harrington, 1996), a psychometric device for career counseling purposes that operationalizes 7 of the 14 propositions constituting Super's career development theory (Super, Savickas, & Super, 1996). Only portions of the theoretical propositions that relate to abilities are addressed. The specific propositions used, with illustrated applications, are listed later in the Interpretation section.

Osipow (1994, p. 219) identified Holland's theory, social learning theory, developmental theory, and work adjustment theory as four of the five foundational career theories. However, vocational scholars thought that all of these theories, except the work adjustment theory, neglected the concept of ability in career development theory (Savickas, 1994). Inspection of the four theory descriptions in Career Choice and Development (Brown, Brooks, & Associates, 1996) also reveals that three of the theories have psychometric devices that play central roles in implementing the theories: Holland's (1970) Self-Directed Search, social learning theory in the Careers Belief Inventory (Krumbolz, 1988), and work adjustment theory in the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967) and in the Minnesota Importance Questionnaire (Weiss, Dawis, & Lofquist, 1975). However, no psychometric instrument was cited that covers Super's comprehensive theory.

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The Salience Inventory (Nevill & Super, 1986a) and the Values Inventory (Nevill & Super, 1986b), pertinent to specific issues in Super’s theory are mentioned, as well as the C-DAC (an acronym for Career Development Assessment and Counseling; Osborne, Brown, Niles, & Miner, 1997) model. “The C-DAC model uses constructs from life-span, life-space theory to supplement the trait and factor model’s attention to abilities and interests” (Super et al., 1996, p. 150). Although the C-DAC model views dealing with self-concept in a segmental and developmental way, the assessments used to implement the model focused more on late adolescents and young adults (Osborne et al., 1997). However, several of the C-DAC instruments (e.g., the Career Development Inventory and the Adult Career Concerns Inventory) are now out of print.

The intent of this article is to attempt again to convert Super’s (Super et al., 1996) popular theory into practice, specifically focusing on abilities and the translation of abilities and self-concept into occupational language to help identify educational and career goals. The reason for the focus on ability is the belief, expressed in Savickas’s (1994) observation, that “ability is the integrative construct for much of the rest of psychology” (p. 238). The AE’s components focus on development, self-concept, and learning orientations and on using the most common methodology in career practice—the matching of personal characteristics with occupations.

Instrumentation

The AE uses a newer self-report methodology than do models that were developed over a quarter of a century ago (i.e., the Self-Directed Search [SDS], Holland, 1970, and the Harrington-O’Shea Career Decision-Making System [CDM], Harrington & O’Shea, 1974). For example, SDS respondents self-estimate each of 12 abilities simply designated by name (e.g., clerical ability) on a 7-point rating scale (1 = low, 5 = average, and 7 = high). In a method that was developed later, the CDM defines the meaning of the abilities and asks respondents to select 4, from a list of 14, of their best abilities (e.g., “clerical ability—running business machines, collecting information in person or by telephone, keeping correct records, typing”). The AE uses a new methodology and asks individuals to rate how good they would be at doing something if they were given a chance from a list of 140 items and how well they can do an activity from a list of 112 items. Respondents indicate their ratings from very good, good, little above average, little below average, poor, or very poor. This third generation of self-report methodologies is more comprehensive and more specific and provides richer information to use during interpretation than did the earlier approaches.

The AE assesses 14 major work-related abilities identified in the research literature as used in job performance. The AE includes 9 abilities (i.e., artistic, interpersonal, leadership, manual, musical/dramatic, organizational, persuasive, scientific, and social) in addition to the 5 abilities (i.e., language, numerical, clerical, mechanical, and spatial) that are traditionally measured. Each of the 14 abilities represents the total score of performance self-ratings, ranging from 6 = very good to 1 = very poor on each of 10 micro-skill statements (e.g., selling products) that define the competencies that make up the macro-ability (e.g., persuasive). Ques-
tions were drawn from activities that job analysts noted that workers perform. This information was then written into 5th-grade reading-level language. Statistical item analysis data were used to determine whether students above Grade 5 had sufficient exposure to make a judgment of proficiency. (Not yet tried was one of the possible response choices for “activities.”) A test bias panel of 12 experts examined the questions to determine whether they were within the common experience of gender, racial, and ethnic groups in order to be included in the AE. The AE also collects self-reported grades in school courses that relate to each of the abilities, as well as a sampling of noncourse experiential activities (e.g., worked in an election) that can foster the development of abilities. Grades and activities are seen as behavioral reinforcers and are presented visually in the interpretive materials for comparative purposes, either supporting or being inconsistent with self-perceptions of self-ratings of abilities. The AE uses the individual’s highest two abilities to suggest specific career groups to explore. The specific job groups are part of an overall list that includes the jobs in which most U.S. workers are employed. The matrix for assigning occupations to abilities was based on the Occupational Aptitude Pattern Structure of the General Aptitude Test Battery (U.S. Department of Labor, 1979), the CDM’s 106 concurrent validity studies on the abilities of workers and college and vocational–technical school students (Harrington & O’Shea, 2000), and expert opinion. Research showed AE patterns differentiated between majors (i.e., health sciences, science, engineering, education, liberal arts, and business administration) in six colleges (Harrington & Harrington, 2001). National middle school, high school, and college and adult norms are available. The machine-scored edition is available in two levels, in addition to a hand-scored edition. Both editions are printed in English and Spanish.

Interpretation

The following integration of some of the theoretical concepts into an ability assessment and its interpretation are organized according to seven of Super’s theoretical propositions (as given in the list that follows Figure 1; Super et al., 1996). Figure 1, which depicts the AE report that is shown to an individual, helps the individual visualize the interpretation process.

1. People differ in their abilities and personalities, needs, values, interests, traits, and self-concepts.

In Figure 1, the Ability Areas rating chart illustrates how people differ in their abilities and, because norms are used, how an individual also differs from others on the same ability. The profile shows that people have multipotentiality. Figure 1 contributes to self-awareness by presenting intrapersonal and interpersonal comparisons.

2. Each person is qualified, by virtue of these characteristics, for a number of occupations.

Depending on the level of development of a person’s unique abilities, each person is qualified for a number of occupations. The AE’s Individual Report displays a person’s results in clusters of career groups. The “Interpreting Your Ability Explorer Results” section in Figure 1 reports the occupations in which a person can use persuasive ability, the highest
### Ability Explorer Individual Report for

**Individual ID:** 1113  
**Gender:** F  
**Ability Areas**  

The following chart shows how you rated yourself in 14 ability areas, from highest to lowest. It also shows how you rated yourself in certain activities you have done or are planning to do. The chart is divided into three sections: Personal, Academic, and Interpersonal. Each section is further divided into sub-areas. The first column lists the sub-areas, the second column shows a number from 0 to 4 indicating the level of ability, and the third column indicates the number of instances you rated yourself in that ability area.

#### Self-Rating

<table>
<thead>
<tr>
<th>Ability Area</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

#### Interpreting Your Ability Explorer Results

Your second highest-rated ability is an Artistic ability. Careers in which you can use artistic ability include artist, designer, interior designer, and fashion designer. Your second highest-rated ability is an Artistic ability. Careers in which you can use artistic ability include artist, designer, interior designer, and fashion designer.

- Your highest-rated ability is an Artistic ability. Careers in which you can use artistic ability include artist, designer, interior designer, and fashion designer.
- Your second highest-rated ability is an Artistic ability. Careers in which you can use artistic ability include artist, designer, interior designer, and fashion designer.
- Your third highest-rated ability is an Artistic ability. Careers in which you can use artistic ability include artist, designer, interior designer, and fashion designer.

#### Your Top Career Groups

The following are the top career groups recommended for your exploration based on your ability self-ratings. Keep in mind that these relate to your abilities, not necessarily to your interests. After each career group, the abilities most important to it are listed as follows:

- **Promotion (Law, Pers.,)**  
- **Law (Civ., Leg., Org.)**  
- **Safety and Law Enforcement (Civ., Inst., Leg., Org.)**  
- **Child and Adult Care (Law., Soc.)**  
- **Educational and Library Services (Civ., Inst., Leg., Org.)**  
- **Hospitality Services (Inst., Leg.)**

#### Your Reading, Language, and Numerical/Mathematical Self-Ratings

- Reading: Language and Numerical/Mathematical abilities are very important for success in almost any of today's careers or the jobs of the future. In response to the question, "How often do you read?", you answered "Never". Your self-rating of Language ability is high, and of Numerical/Mathematical ability, the self-rating is low. You may want to talk with a career counselor or teacher about ways to improve or to continue to develop these abilities so you can achieve your career goals.

#### Your Future Plans and Career Goal

In response to the question about a future plan, you answered "Four-Year College or University". It is recommended that you make plans to pursue a career that interests you in the future. If you are interested in a particular career, you should look into the requirements for that career and consider taking courses in high school that will prepare you for that career.

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**FIGURE 1**

**The Ability Explorer Report**

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self-reported ability, in conjunction with the person's other abilities. These occupations include advertising manager, membership director, public relations representative, actor, drama teacher, and radio/TV announcer. The range of occupations is broad enough to accommodate different choices, depending on an individual's interests.

3. Each occupation requires a characteristic pattern of abilities and personality traits, with tolerances wide enough to allow some variety of occupations for each individual as well as some variety of individuals in each occupation.

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Although different occupations require a certain pattern of abilities, each job is broad enough to permit a variety of people in each position. An important component of the Level 2 AE’s counselor’s report (not shown) is the Ability Configurations section, which gives minimum recommended percentile ranks for various career groups. Most occupational performance requires multiple abilities. Clients often fail to think that although language and persuasive abilities are needed for such competitive positions as advertising manager and public relations work (a 60th percentile and above is required in both areas), the advertising person also generally has artistic and spatial skills as shown in Figure 1. Thus, the counselor’s report is an important resource for counselors who do not have much background in occupational requirements. This theoretical proposition involves a learning component for both client and counselor to gather information related to self-development toward achieving specific goals.

4. Vocational preferences and competencies, the situations in which people live and work, and, hence, their self-concepts change with time and experience, although self-concepts as products of social learning are increasingly stable from late adolescence until late maturity, providing some continuity in choice and adjustment.

Vocational preferences and competencies are related to self-concepts, which can change over time. Self-esteem and self-concept are associated with self-perceptions of abilities. For example, a high persuasive score in the Ability Areas chart of Figure 1 can have different meanings, depending on such supporting data as school grades and performance in nonschool activities. A reinforcing interpretation to a client is when a self-evaluated ability, indicated by a dark diamond in the chart, is supported by high grades in related course work, indicated by a small circle, along with self-reports of doing a considerable number of related activities very well or well, indicated by an open diamond. A report demands that probing occur with clients whose self-evaluation of an ability is high, but neither their grades nor activities appear in the same score range. The chart notes the person’s medium level on activities and that no course work was taken for this high self-reported ability.

An interpretation of lower self-efficacy beliefs might be indicated by the high grades and activity performance but a considerably lower self-evaluation in leadership ability, as shown in Figure 1. Another possible interpretation could be that there is low interest in using clerical ability despite being good at it. Regardless, examining the discrepancies between the three areas of abilities, grades, and experiential activities is a major AE interpretation goal. A client’s explanation may clarify a self-concept perception. People who are speaking in declarative sentences and explaining their strengths and weaknesses in relation to goals can be exhibiting self-esteem. A student who consistently performs well in all subjects, as this “all As” student in Figure 1, can project her self-concept by confidently asserting an interest in a specific area and, for the moment, not use other areas of competence.

5. Development through the life stages can be guided, partly by facilitating the maturing of abilities, interests, and coping resources and partly by aiding in reality testing and in the development of self-concepts.

The “Interpreting Your Ability Explorer Results” section of Figure 1 lists the activities to help develop each ability and the courses to take that
can help improve an ability area. This is important for individuals who have not had the opportunity or experience to benefit from exposure to a particular ability area.

The counselor's report also provides a detailed summary of the client's two highest abilities; the ability responses indicated as very good and good; the specific activities reported as done very well, well, not well, and not tried; and the grades in courses (with grades indicated as A or B; C, D, or F; and not taken). This information enables the counselor to offer specific suggestions during interpretation. The intent of examining the congruence between self-reports of ability and related activities and course work is to aid in reality testing and the development of self-concepts.

6. The process of career development is essentially that of developing and implementing occupational self-concepts. It is a synthesizing and compromising process in which the self-concept is a product of the interaction of inherited aptitudes, physical makeup, opportunity to observe and play various roles, and evaluations of the extent to which the results of role-playing meet with the approval of supervisors and peers.

Super's career development beliefs are essentially that of developing and implementing self-concepts. Integration of personal preferences and characteristics into a self-identity is a difficult and lifetime task that involves a synthesizing and compromising process.

As shown in Figure 2, the concluding AE activity provides the student or adult with opportunities to further explore his or her results and to do career or educational planning. Each integrative activity is grade or age appropriate and tied directly to the National Career Development Guidelines (National Occupational Information Coordinating Committee, 1996). The assessment experience is only meaningful when people have the opportunity to look closely at their results and then make connections with the world of work and/or future educational planning. They only then begin to see that there is a link between their interests, skills, abilities, and their future success. This activity is also an ideal component for inclusion in a career portfolio.

7. Work satisfactions and life satisfactions depend on the extent to which an individual finds adequate outlets for abilities, needs, values, interests, personality traits, and self-concepts. Satisfactions depend on establishment in a type of work, a work situation, and a way of life in which one can play the kind of role that growth and exploratory experiences have led one to consider congenial and appropriate.

Satisfaction is also a major concept of the work adjustment theory, and its authors emphasize the belief "that valid theoretical formulations are best developed on the basis of sound empirical study" (Dawis, 1996, p. 77). Separate satisfaction studies do not exist for the AE, but Harrington and O'Shea (2000) offered support for Super's propositions. They conducted large-scale studies of abilities, values, interests, and school subject proficiencies for workers and college and vocational-technical students-in-training. These authors found substantial agreement with job analysts' findings on these same characteristics for people employed in the same occupation. The samples covered one half of the career clusters in which U.S. workers are employed and included professional, managerial, clerical, skilled, and unskilled occupations. Regardless of their unique ability patterns, people may be considered satisfied when they continue to work
Grade 8 Activity:

Exploring a Career Choice

When you make a career choice, it's important to see what you can do in school and outside of school to prepare for it. Follow the directions below to help you explore a career choice that interests you.

First, list one or more abilities that were your highest on the Ability Explorer or that you're interested in developing.

Abilities

1.
2.
3.

Now look at the activities and school courses related to this ability (or abilities) on page 4. Write down two or three activities and two or three courses that can help you develop the ability.

Activities

1.
2.
3.

Courses

1.
2.
3.

Write down a career choice that you think uses your best abilities or the ones you're interested in developing.

Career Choice

Find out about this career through books or any other sources of information your school counselor has. Write down what you learn in the boxes below.

What They Do

Work Conditions

Education or Training

Job Outlook and Salary

Now that you've learned more about the career choice, are there any changes or additions you would make to the abilities, activities, and courses you listed above in order to prepare for this career? Or would you make a new career choice? List any changes or additions you would make in the box below.

Changes or Additions

FIGURE 2

The Ability Explorer Report (Page 2)

Note. See Figure 1 Note.

in the same occupation. This is further supported when students and workers-in-training possess the same patterns as the employed adult workers.

Conclusion

It stands to reason that individual differences appear when more, rather than fewer, abilities are used to describe a person. Career professionals have increasingly relied on self-assessments that assess more abilities than do the existing normative measures that have fewer scales. Many norma-
tive measures must be used cautiously with ethnically and racially diverse clients. In fact, some commonly used aptitude tests that were administered only 5 years ago are no longer used in many schools. Protecting classroom learning time has also contributed to limiting the use of time-intensive ability/aptitude testing. However, people, young and old, need to know what their abilities are.

With 63% of high school graduates continuing on to postsecondary education, many do not know or consider their ability level in deciding their goals (Jamieson, Curry, & Martinez, 2001). Scholastic aptitude tests are limited in that they do not measure a broad range of different skills. Interest inventories measure what a person likes, not what a person is good at doing. Having appropriate abilities is important in job performance. Failure to perform after graduating from high school reflects negatively on schools. Students and parents have the right to expect that students have been exposed to the major work-related abilities in schools and that they have had the opportunity to reality test these abilities.

Interpretation is a key part of administering an instrument. Interpretation can be a difficult situation, because not all clients listen to, or care about, what the counselor has to say. Information can be threatening because it may reveal that a dream job is not possible. Information can also be misunderstood. Information can affect a person’s self-esteem. However, information can also result in good communication and be both powerful and informative. The effectiveness of any information rests in the way the provider communicates with the respondent.

References


