

STRONG VOCATIONAL INTEREST INVENTORY

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Strong Vocational Interest Inventory

- Publisher: Consulting Psychologists Press, Inc.
- Level C
- PRICES
- 10 prepaid profiles: \$75.00
- 10 prepaid interpretive reports: \$235.00
- Strong Applications and technical Guide: \$72.00
- Strong Profile preview kit: \$18.95
- Interpretive report preview kit: \$23.10
- 10 client booklets: \$40.00
- 10 prepaid professional reports: \$163.00
- Strong Professional report preview kit: \$26.50

History

- Developed by Edward K. Strong
- Strong taught at the Carnegie Institute of technology in Pittsburgh from 1919 to 1923
- Strong hypothesized that different occupations could be differentiated by the interests of those who held those occupations. Created a 1,000-item interest survey.

History (cont'd)

- Strong moved to Stanford University
- Made first Strong Vocational interest Inventory in 1927
- First test was only for men because Strong thought that men and women were not interested in the same careers.
- Made a separate test for women in 1933.

History (cont'd)

- Beginning in the mid-fifties, graduate student David Campbell helped Strong revise the tests. Campbell continued revising the tests after Strong died.
- Combined the men's and women's test in 1974.
- Last version of the test published in 1994.

Theory

- The SII is based on the idea that people are more satisfied and productive when they work at jobs they find interesting and when they work with people whose interests are similar to their own.
- Compares an individual's pattern of responses to the pattern of responses of people of different types and in different occupations

SII Facts

- 25 minutes
- Contains 30 items
- Items measure interest in a variety of occupations, occupational activities, hobbies, leisure activities, and types of people

Uses of the SII

- choose a career
- increase job satisfaction
- make a career change
- choose appropriate education training
- find balance between work and leisure

Sample Size

- sample size is 13 times larger than that of other career planning inventories
- sample base represents a wide range of educational, ethnic, and socioeconomic levels

Description

- SII includes 6 Holland Themes, 25 Basic interests, 109 Contemporary Occupations, and 4 Personal styles

Design

- General Occupational Themes (GOT's)
- Based on John Holland's Vocational Choice Theory
- GOT's includes Realistic, Investigative, Artistic, Social, Enterprising, and Conventional Themes
- Looks at how much interest a person has in these areas compared to people in general

Design (cont'd)

- Most people's interests combine several themes
- 6 themes can be arranged around a hexagon with the types most similar falling next to each other

Design (cont'd)

- Strong profile-Standard Edition is a 6-page report
- 1st profile page is "Snapshot" of the rank-ordered GOTs, the top 5 BISs, and the top 10 OSs
- 2nd profile page depicts 6 GOTs and their corresponding BISs with box-and-whisker graphs
- Boxes depict middle 50%
- Whiskers depict middle 80% of distribution
- Results plotted beyond whiskers represent extreme top and bottom 10% of distribution
- Next 3 pages report OS results within respective GOT interest areas
- 6th page reports PSSs and administrative indexes

Design (cont'd)

- Basic Interest Scales (BIS's)
- Looks at how much interest one has in these areas compared to people in general
- Includes 25 scales, 3-5 associated with GOT
- Looked at as subdivision of the GOT

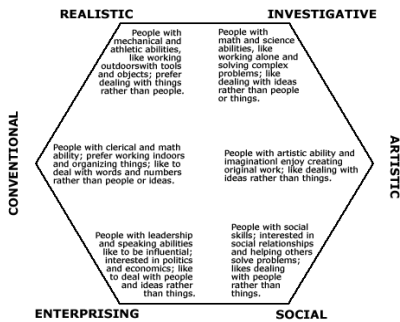
Design (cont'd)

- Occupational Scales
- Looks at how similar people are to workers in these occupations
- 211 scales, representing 109 occupational titles
- 102 are both genders
- 5 are female only gender
- 2 are male only gender

Design (cont'd)

- Personal Style Scales (PSS's)
- 4 scales
- *Workstyle* -- looks at how much contact with people a person wants in their work
- *Learning Environment* – looks at how much a person likes to learn
- *Leadership Style* – looks at how a person likes to lead
- *Risk Taking/Adventure* – looks at how comfortable a person is with risk taking and change

Design: Holland Hexagon



Standardization

- SII updated in 1992 and 1993
- More than 55,000 people in 50 occupations sampled
- SII administered in 50 occupations (48 female-male paired samples, 2 single-gender samples)
- Median sample size for these criterion groups was 250, with fewer than 200 respondents in 8 groups
- General Reference Sample (GRS) consists of random samples of 200 from 90 criterion group samples

Standardization (cont'd)

- Resulting GRS consists of 18,951 (9,467 female, 9,484 male) employed adults who were:
- 1) satisfied with their occupations
- 2) doing tasks typical of the occupation
- 3) successful
- 4) with at least 3 years of job incumbency
- GRS used to calculate GOT and BIS standard scores and to identify items differentiating occupational criterion groups for use in OS calculation

Reliability

- Cronbach alphas for GOT, BIS, and PSS scales were calculated using the GRS
- Four samples used to demonstrate stability
- 1st sample included 191 employed adults who were retested following 3 –to 6-month interval
- 2nd sample included 84 college students retested after a 1-month interval
- 3rd (n=79) and 4th (n=87) samples included college students enrolled in career development classes retested after 3-month intervals

Reliability (cont'd)

- Alpha reliability estimates for GOTs were in .90 - .94 range
- GOT test-retest reliability coefficients in .74 - .92 range with median retest coefficients of .89., .86, .82, and .83 for the four samples, respectively
- Alpha coefficients for the BISs were in the .74 - .94 range with a median of .87
- BIS retest reliability coefficients were in the .66 - .94 range with median retest coefficients of .86, .85, .80, and .83 for the 4 samples

Reliability (cont'd)

- Alpha coefficients are not reported for the OSs in the guide
- OS retest reliability coefficients were in .66 - .96 range
- Median retest coefficients for the 4 samples were .90, .87, .85, and .84
- For the PSSs, the alpha coefficients were .91 for Work Style, .86 for Learning Environment, .86 for Leadership, and .78 for Risk/Taking Adventure
- Median retest reliability coefficients were .90, .86, .87, and .87 for the 4 samples

Reliability (cont'd)

- Reliability properties for SII scales are impressive
- Stability was highest for the employed adults
- Stability was more than satisfactory for the groups of college students enrolled in career development classes

Validity

- CONCURRENT VALIDITY
- 2 forms reported for the GOT
- (1st form) 15 highest ranking and 15 lowest occupational groups listed for each GOT
- Predictable patterns were apparent (e.g. auto mechanics and carpenters had highest Realistic GOT results; childcare providers and public relation directors had the lowest scores)
- (2nd form) Educational majors were determined for 16, 694 of the GRS respondents
- Mean GOT profiles for each educational major groups were consistent with theoretical expectations

Validity (cont'd)

- Same method used to document concurrent validity of the 25 BISs
- Highest and lowest ranking occupations on each BIS were consistent with expectations
- No direct evidence for predictive validity of the Applied Arts, Culinary Arts, Data management, and Computer Activities BISs that were added in 1994

Validity (cont'd)

- Concurrent validity of OSs evaluated by calculating the Tilton Overlap (the percentage of OS scores in occupational criterion group matched by scores in the GRS distribution)
- Low overlap indicates criterion group is highly distinct from GRS
- Lowest overlap percentage was 15% for male medical illustrator (indicates interest profile of this occupational group most distinct from GRS profile)
- Highest overlap was 61% for female small business owners (interest profile of this occupational group overlaps considerably with modal GRS interest profile)
- Median overlap for OSs was 36% (indicates a difference of almost 2 standard deviations in the OS means of criterion groups and GRS)

Validity (cont'd)

- OSs represent the unique interest profiles of distinct occupational groups
- Mean GOT results of each OS criterion group also followed predicted pattern
- Moderate-to-excellent hit rate of approximately 65% between OSs and subsequent occupational selections
- Evidence constitutes strong support for predictive validity of OSs

Validity (cont'd)

- Concurrent validity of PSSs addressed with method used for GOTs and BISs
- PSS score distributions of various occupational and educational major groups were in predicted direction
- No mention of predictive validity findings of PSSs

Validity (cont'd)

- DIFFERENTIAL VALIDITY
- SII developers took multifaceted approach to dealing with fact men and women are differ in their responses to interest inventories.
- 1st – standard scores for men and women on GOTs and BISs calculated using the means of the combined female and male GRS
- Standard scores graphed on box-and-whisker graph distribution of the sex of the respondent
- Female respondent may have a Realistic GOT score lower than male average, her score may appear higher than average on the female distribution

Validity (cont'd)

- 2nd – Box-and whisker graph distributions of both genders provided for each GOT, BIS, and PSS
- Respondent able to examine how her or his results compare to norms of same and other gender

Validity (cont'd)

- 3rd – Scores calculated on the 102 OSs for which both male and female samples available
- Respondents compare similarity of their interests to those of both men and women in each of these occupations
- 4th – OSs results based on same-gender groups are graphed on Strong Profile.

Validity

- Profile provides maximal information to respondent, but graphic presentation is focused on same-gender results.
- 5th – GOT, BIS, and OS results presented in the Snapshot compared to persons of same gender
- This approach to reporting and presenting SII results acknowledges gender difference in interest test results yet empowers the counseling dyad to choose comparison groups when interpreting test results

Benefits

- Oldest and most researched interest test
- Easy to use and easy to understand
- Matches a person's interest with various careers and occupations
- Useful source of information for educational planning

Issues

- Many jobs exist that are not listed
- Uses some unfamiliar job titles
- Measures interests, not abilities or skills
- Poor discrimination among shielded

Issues (cont'd)

- 6 NOTABLE STRENGTHS
- 1st – provides both empirical and homogeneous interest scale results in an attractive Profile
- 2nd – GOTs represent Holland's hexagonal model better than other popular measures
- 3rd – No significant differences in the structures of female and male GOTs
- 4th – Circular order of the 6 GOTs (R-I-A-S-E-C) holds for Caucasian, African, American, Asian American, African American, and Latino/Hispanic women and men
- 5th – Administrative indices enable counselor to assess profile validity and provide insight into conflicting or confusing results
- 6th – Guide provides extensive technical information and valuable suggestions for general interpretation of the Strong as well as for use with women, minority members, and disabled individuals

Issues (cont'd)

- 4 MAJOR WEAKNESSES
- 1st – criterion group data for 62 (29%) of the 211 OSs were collected more than 20 years ago (these may not adequately represent modal interest of contemporary job incumbents)
- Pressing need for updating of the criterion groups
- 2nd – Racial and ethnic group members were not adequately represented in the 1994 GRS
- 3rd – Discussion of predictive validity for the GOTs is limited. Greater effort should have been taken to summarize available evidence regarding predictive power of the GOTs
- 4th – Manual does not specify the response percentages of those comprising the occupational criterion groups. No evidence was presented to describe how typical respondents were in comparison to all members of each occupational group

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