

The Influence of Item Response on Self-Directed Search (SDS) Scores

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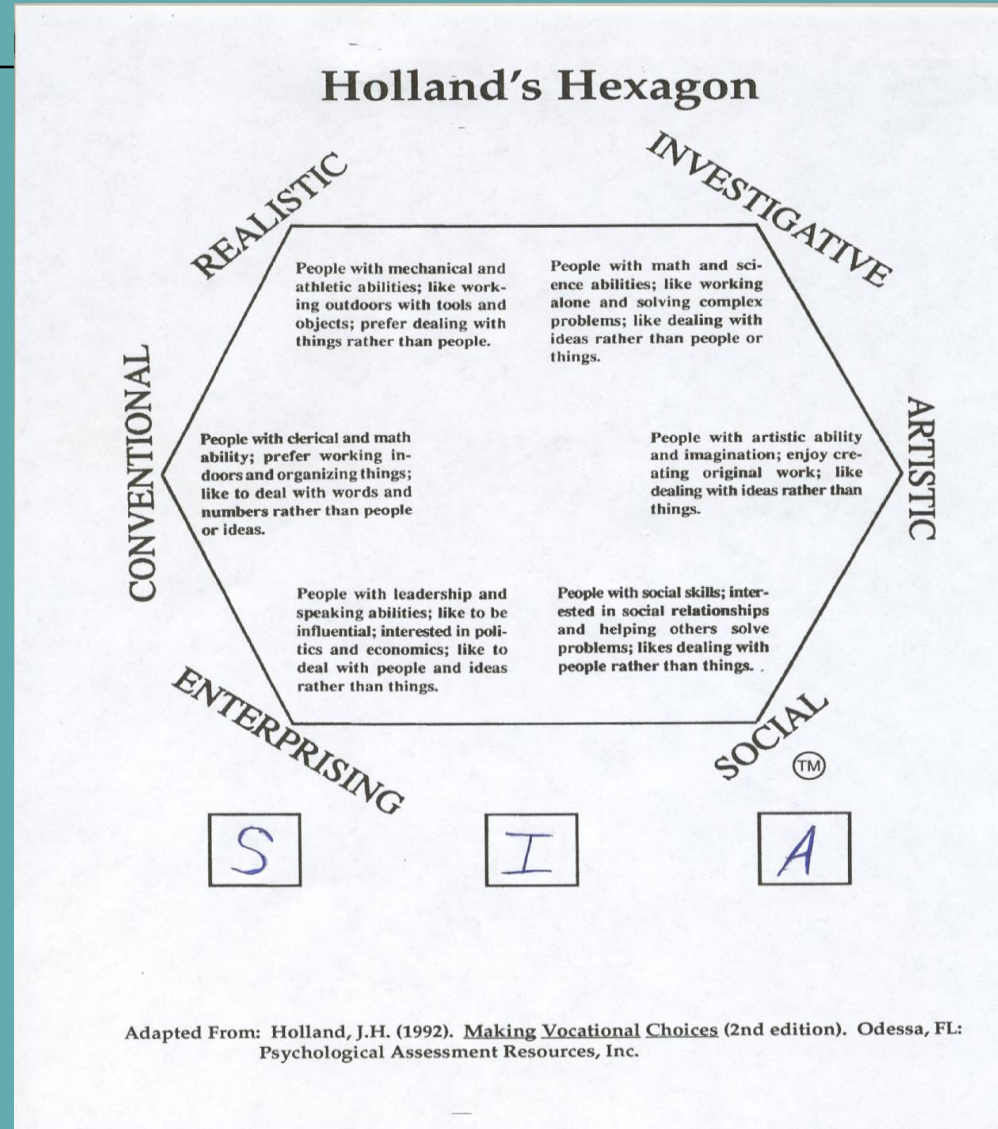
**Jon Shy, M.S./Ed.S.
James P. Sampson, Jr., Ph.D.
Robert C. Reardon, Ph.D.
Sarah Lucas Hartley, M.S./Ed.S.**

Overview

- Holland Party Game
- Genesis of Current Study
- Prior Research
- Methodology
- Results
- Discussion

Holland Party Game

Record your top three Holland types on the sheet



Practice Influences Research

- Began with a question from my client during an interpretation of the SDS
- “I wasn’t sure how to respond to some of the items.”
 - SDS does not allow “uncertain” or “indifferent” responses to items as is the case with some interest inventories
- “Would this make a difference in my score?”
- “Let’s find out.”

Practice Influences Research

- Items in question were then identified by the client and changed
- The SDS was then scored again
- The summary code did not change
- “Are you more confident in the results?”
- “Yes”

Practice Influences Research

- Similar comments from a small number of my other clients taking the SDS and the Strong:
- “If I took the test on a different day, my results would be different.”
- Potentially reduces the face validity of the measure
 - Clients may have little confidence in the results
- This client perception needs investigation

Practice Influences Research

- Are other clients uncertain about responding to SDS items?
- If so, what influences uncertainty in responding to SDS items?
- What implications does this uncertainty have for practice and research?

Prior Research

- Making occupational titles gender neutral for SDS items resulted in no significant change in summary codes (Boyd, 1976)
- Modifying instructions from present to future tense in the Activities and Competencies sections of the SDS resulted in significant code changes in the
 - Activities section (Realistic)
 - Competencies section (Realistic, Artistic, Enterprising, and Conventional) (Siebel and Walsh, 1977)
- No research to date has examined item response indecision

Instruments

- Self-Directed Search (SDS; Holland, 1994)
- Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996)
- Student Data Sheet
 - Yielding demographic information

Self-Directed Search

- 228-item self-report interest inventory yielding scores for Holland's six types
- 4 sections: Activities, Competencies, Occupations, and Self-estimates

Modified SDS Instructions

Dear student, as you complete the Activities, Competencies, and Occupations section of the Self-Directed Search booklet, place a question mark (?) by any item if you have difficulty deciding on a Like, Dislike, Yes, or No response. Thank you!!

Activities

Blacken under **L** for those activities you would like to do. Blacken under **D** for those things you would dislike doing or would be indifferent to.

R

Please read first

Dear student, as you complete the Activities, Competencies, and Occupations sections of the Self-Directed Search booklet, place a question mark (?) by any item if you have difficulty deciding on a Like, Dislike, Yes, or No response. Thank you!!

Fix electrical things	<input type="checkbox"/>	<input type="checkbox"/>
Repair cars	<input type="checkbox"/>	<input type="checkbox"/>
Fix mechanical things	<input type="checkbox"/>	<input type="checkbox"/>
Build things with wood	<input type="checkbox"/>	<input type="checkbox"/>
Take a Technology Education (e.g., Industrial Arts, Shop) course	<input type="checkbox"/>	<input type="checkbox"/>
Take a Mechanical Drawing course	<input type="checkbox"/>	<input type="checkbox"/>
Take a Woodworking course	<input type="checkbox"/>	<input type="checkbox"/>
Take an Auto Mechanics course	<input type="checkbox"/>	<input type="checkbox"/>
Work with an outstanding mechanic or technician	<input type="checkbox"/>	<input type="checkbox"/>
Work outdoors	<input type="checkbox"/>	<input type="checkbox"/>
Operate motorized machines or equipment	<input type="checkbox"/>	<input type="checkbox"/>
Total No. of Ls	<input type="checkbox"/>	

Read scientific books or magazines	<input type="checkbox"/>	<input type="checkbox"/>
Work in a research office or laboratory	<input type="checkbox"/>	<input type="checkbox"/>
Work on a scientific project	<input type="checkbox"/>	<input type="checkbox"/>
Study a scientific theory	<input type="checkbox"/>	<input type="checkbox"/>
Work with chemicals	<input type="checkbox"/>	<input type="checkbox"/>
Apply mathematics to practical problems	<input type="checkbox"/>	<input type="checkbox"/>
Take a Physics course	<input type="checkbox"/>	<input type="checkbox"/>
Take a Chemistry course	<input type="checkbox"/>	<input type="checkbox"/>
Take a Mathematics course	<input type="checkbox"/>	<input type="checkbox"/>
Take a Biology course	<input type="checkbox"/>	<input type="checkbox"/>
Study scholarly or technical problems	<input type="checkbox"/>	<input type="checkbox"/>
Total No. of Ls	<input type="checkbox"/>	

Etch, draw, or paint	<input type="checkbox"/>	<input type="checkbox"/>
Design furniture, clothing, or posters	<input type="checkbox"/>	<input type="checkbox"/>
Play in a band, group, or orchestra	<input type="checkbox"/>	<input type="checkbox"/>
Practice a musical instrument	<input type="checkbox"/>	<input type="checkbox"/>
Create portraits or photographs	<input type="checkbox"/>	<input type="checkbox"/>
Write novels or plays	<input type="checkbox"/>	<input type="checkbox"/>
Take an Art course	<input type="checkbox"/>	<input type="checkbox"/>
Arrange or compose music of any kind	<input type="checkbox"/>	<input type="checkbox"/>
Work with a gifted artist, writer, or sculptor	<input type="checkbox"/>	<input type="checkbox"/>
Perform for others (dance, sing, act, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Read artistic, literary, or musical articles	<input type="checkbox"/>	<input type="checkbox"/>
Total No. of Ls	<input type="checkbox"/>	

4

SDS Definitions

- **Secondary Constructs:**
 - **Coherence:** degree to which occupational daydreams codes belong in the same Holland category
 - **Congruence:** degree of match between two codes, e.g., a summary code and an aspirations code
 - **Consistency:** distance between the first two code letters on the hexagon
 - **Differentiation:** level of definition or distinctness of a personality profile
- **Profile Elevation:** sum of the 6 section scores on the SDS (the total number of positive responses and the two self-estimates scores)

Career Thoughts Inventory

- 48-item instrument assessing level of dysfunctional career thinking
- Items are endorsed using a four point scale ranging from strongly disagree (0) to strongly agree (3)
- Yields a total score and three construct scores: Decision Making Confusion, Commitment Anxiety, and External Conflict

CTI Definitions

- **Decision Making Confusion:** an inability to initiate or sustain the career decision making process as a result of disabling emotions and/or a lack of understanding about the decision making process itself
- **Commitment Anxiety:** an inability to make a commitment to a specific career choice, accompanied by generalized anxiety about the outcome of the decision making process, with anxiety perpetuating the indecision
- **External Conflict:** an inability to balance the importance of one's own self-perceptions with the importance of input from significant others, resulting in a reluctance to assume responsibility for decision making

Method

- SDS3340 – Undergraduate Career Course
- Participants:
 - 247 undergraduate career course students
 - 102 females (41.3%) and 145 males (58.7%)
 - 15.8% African American, 1.6% Asian American, 67.6% Caucasian, 12.1% Hispanic American, 2.8% “Other”
 - 13% freshmen, 32.4% sophomores, 23.9% juniors, 30.1% seniors
- Procedure

Research Questions

1. What is the relationship between item response indecision and SDS summary code permutations?
2. What is the relationship between the first type (letter) in participants' SDS code and the number of questions indicated on the SDS?
3. What is the relationship between item response indecision and the SDS secondary constructs, negative thoughts, profile elevation, and demographic variables?

Hypotheses

1. When answers are reversed, code permutations will not include new Holland types
2. For students with item response indecision, there will be no significant differences in scores on secondary constructs and profile elevation between their two summary codes
3. There will be no significant relationship between the first letter of a person's SDS code and the number of questions indicated

Hypotheses

4. Students with item response indecision will score lower on the SDS Secondary Constructs
5. Students with item response indecision will score higher on a measure of negative career thinking
6. Students with item response indecision will have a lower profile elevation on the SDS
7. Differences in item response indecision will not depend on gender, year in school, or race

Findings

- 114 (46%) of participants indicated item response indecision
- 609 questions were indicated
- Range of number of questions: 1-54
- Average number of questions: 5.3 (SD of 7.7)

Questions Per Holland Type

	N	%
Realistic	56	9
Investigative	87	14
Artistic	83	14
Social	141	23
Enterprising	136	22
Conventional	106	18

Hypothesis 1:

Code permutations will not include new Holland types

	N	%
No Code Change	93	81.6
First/Second Letter Reversal	7	6.1
Second/Third Letter Reversal	4	3.5
Third Letter Change	10	8.8

Hypothesis 2:

Secondary constructs and profile elevation will not change

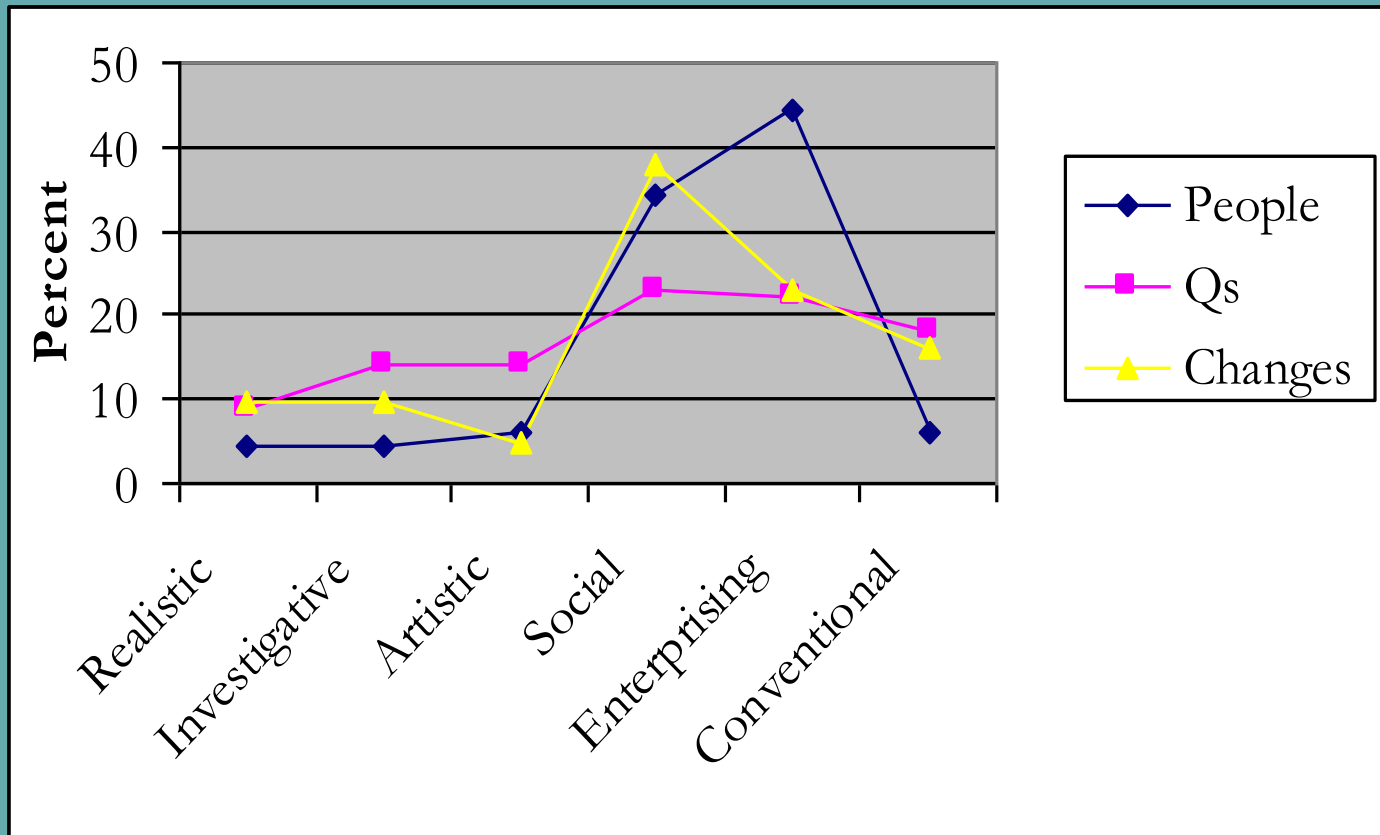
- Paired t-tests revealed participants' scores were not significantly different between their two summary codes
- Pearson product moment correlations revealed scores obtained on both summary codes were significantly correlated at the .001 level

Hypothesis 3:

Holland types not related to number of questions

- No significant differences in item response indecision between the 6 Holland types
- Sample skewed in terms of Social and Enterprising types (these types comprised 79% of sample)

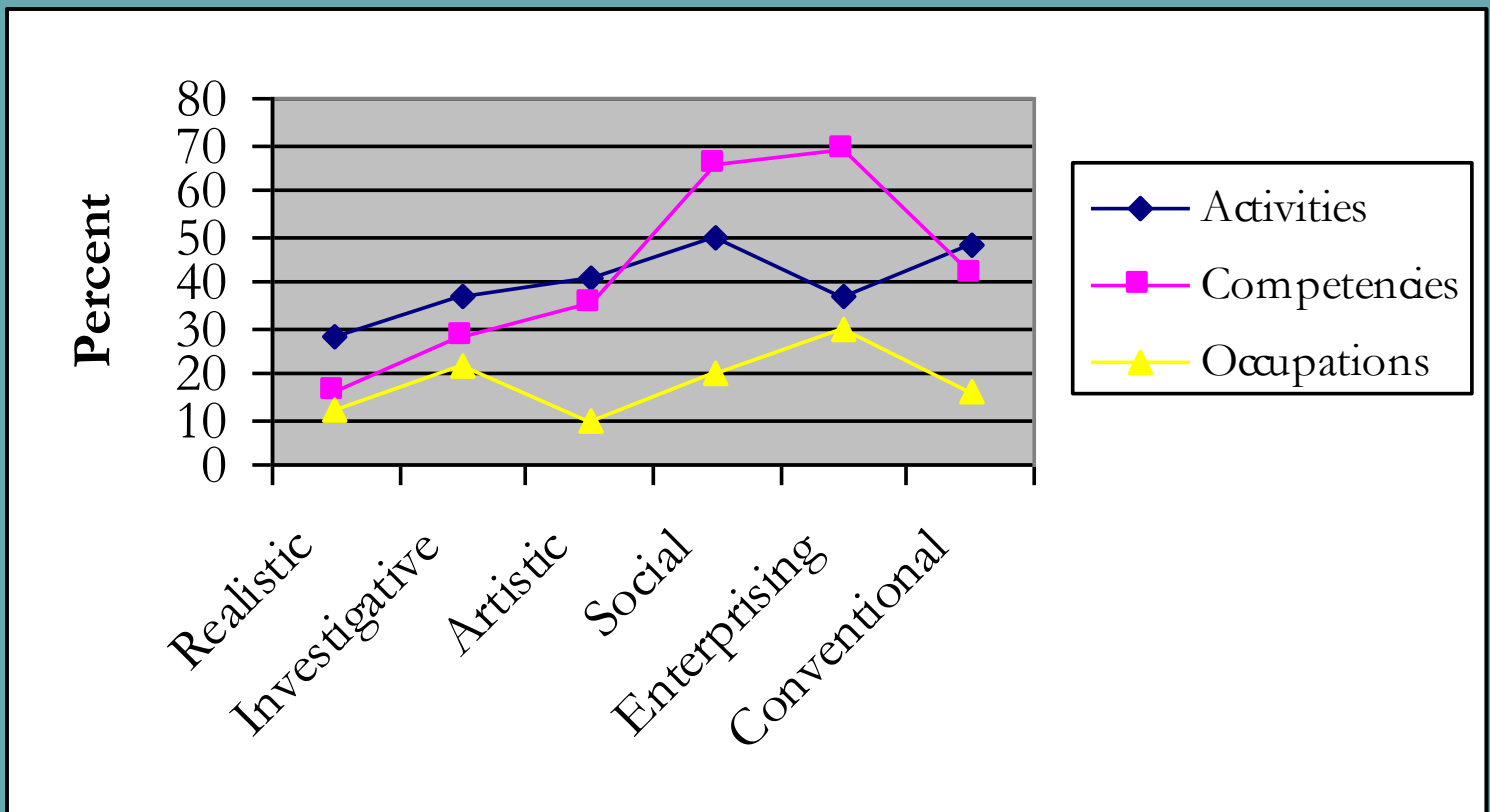
Percent of people, questions, and code changes per Holland type



Questions per SDS Section

- Interesting Trend
 - For Social and Enterprising types, the majority of questions were indicated within the Competencies section
 - For all other types, most questions were indicated within the Activities section

Questions per SDS Section (cont)



Hypothesis 4:

Students with item response indecision will score lower on secondary constructs

- No significant differences in scores on Differentiation, Congruence, or Consistency
- Significant difference on Coherence
 - Limited knowledge of occupational interests

Hypothesis 5:

Students with item response indecision will score
higher on Career Thoughts Inventory

- No significant differences in scores on Decision Making Confusion, Commitment Anxiety, or External Conflict
- Readiness for career decision making, and amount of negative thinking similar across groups

Hypothesis 6:

Students with item response indecision will have a
lower profile elevation

- No significant differences in scores on profile elevation
- Mean=129; SD=29
- Range: 64 – 247
- Students seeking career assistance appear to obtain similar scores, regardless of item response indecision
- Perhaps item response indecision indicative of some untested variable, e.g., openness

Hypothesis 7:

Demographic variables will not affect item response indecision

- Gender, year in school, and race were not found to account for the differences in scores across the two groups
- Significant relationship between year in school and scores on External Conflict
 - When analyzed, Sophomores obtained highest scores on External Conflict
 - Greater external pressure to select major

Summary of Results

- **SDS codes did not change in 82% of cases when answers were reversed**
- Only 9% of codes included a new Holland type when answers were reversed
 - Only for third type
- Students indicating item response indecision on the SDS tend to endorse as much negative thinking as other students
- These results were not impacted by demographic variables

Limitations

- Unequal representation of personality and environment types (skewed toward Social and Enterprising types)
- Sample composed of only traditional college-aged students
- Variability in the reasons for seeking career assistance

For More Information

- View and print presentation materials:
www.career.fsu.edu/techcenter
- Contact the authors: jshy@admin.fsu.edu
shartley@admin.fsu.edu