

8-2014

Professional Opinion on the Use of Interest Inventories in Employee Selection

Amy Mandelke

Western Kentucky University, amy.mandelke706@topper.wku.edu

Follow this and additional works at: <http://digitalcommons.wku.edu/theses>



Part of the [Industrial and Organizational Psychology Commons](#)

Recommended Citation

Mandelke, Amy, "Professional Opinion on the Use of Interest Inventories in Employee Selection" (2014). *Masters Theses & Specialist Projects*. Paper 1391.

<http://digitalcommons.wku.edu/theses/1391>

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

PROFESSIONAL OPINION ON THE USE OF INTEREST INVENTORIES IN
EMPLOYEE SELECTION

A Thesis
Presented to
The Faculty of the Psychology Department
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
Of the Requirements for the
Master of Arts

By
Amy J. Mandelke

August 2014

PROFESSIONAL OPINION ON THE USE OF INTEREST INVENTORIES IN
EMPLOYEE SELECTION

Date Recommended July 18, 2014

Elizabeth L. Shoenfelt

Dr. Elizabeth L. Shoenfelt, Director of Thesis

Reagan Brown by Kelly Neal

Dr. Reagan Brown

Aaron Wichman

Dr. Aaron Wichman

Cal AR

Dean, Graduate Studies and Research

7-25-14

Date

ACKNOWLEDGMENTS

First and foremost, I would like to thank my parents, John and Darlene Mandelke, and sister, Lisa, for their encouragement and continual support in the achievement of my academic and career ambitions. Next, I would like to acknowledge and thank my thesis committee members. More specifically, I would like to thank my thesis chairperson, Dr. Elizabeth (Betsy) Shoenfelt for her dedication to helping me complete my thesis. Dr. Shoenfelt not only provided me with assistance in selecting my project, but also provided expertise in employment law as well as guidance and support throughout the entire process. I would also like to thank the members of my thesis committee, Dr. Reagan Brown and Dr. Aaron Wichman, for their expertise in test development, employee selection, and social psychology. Additionally, I would like to thank Dr. Nancy Tippins, Dr. Chris Briddick, Dr. Karl Laves, and Michael Pate for their expertise, encouragement, and advice. Furthermore, I would like to thank my friends, classmates, professors, University staff, and other individuals who offered recommendations and assistance with the completion of my project. Finally, I would like to thank the Western Kentucky University Graduate Research Committee for providing me with a grant to fund my thesis.

CONTENTS

List of Tables	vii
Abstract	viii
Introduction.....	1
Background of Interest Inventories.....	2
Vocational Inventories Defined	2
History of Interest Inventories	2
Assessment History.....	2
Holland’s Interest Typology	3
Person-Environment Fit	4
Current State of Interest Inventories	4
Rationale for Utilizing Interest Inventories in Selection	5
Empirical Arguments	5
Relevant Evidence in Non-I-O Fields.....	6
Evidence in I-O	6
Administrative and Psychometric Properties of Interest Inventories	7
Administrative Properties	7
Reliability.....	8
Validity	8
Legality: A Point to Consider	9
Exposure	9
Socialization.....	9
Case Law.....	10

Method	12
Participants.....	12
Instrument	15
Procedure	15
Results.....	17
Additional Analyses.....	18
Use of Interest Inventories	18
Employee Selection	18
Other I-O Applications	19
Liability and Legality.....	19
Potential Risks	23
Benefits	24
Discussion.....	25
Limitations	28
Future Directions	28
Conclusion	29
Appendix A: Informed Consent.....	44
Appendix B: Questionnaire.....	31
Appendix C: Social Media Posts	37
Appendix D: Email	38
Appendix E: Postcard	39
References.....	40

LIST OF TABLES

Table 1: Response Rates.	12
Table 2: Participant Ages.....	13
Table 3: Primary Employment Sectors.	14
Table 4: Primary Job Role Categories.	14
Table 5: Frequency of Expected Incremental Validity of Interest Inventories for Specific Personnel Decisions.	19
Table 6: Other Uses of Interest Inventories.	20
Table 7: Likelihood of Discriminatory Effects.	22
Table 8: Correlations for Legal Liability and Discriminatory Effects.....	22
Table 9: Potential Risks in Using Interest Inventories.....	23
Table 10: I-O Application with Likelky Positive Benefits of Using Interest Inventories.	24

PROFESSIONAL OPINION ON THE USE OF INTEREST INVENTORIES IN
EMPLOYEE SELECTION

Amy Mandelke

August 2014

44 Pages

Directed by: Dr. Elizabeth Shoenfelt, Dr. Reagan Brown, and Dr. Aaron Wichman

Department of Psychology

Western Kentucky University

Although interest inventories have a long history in the field of career counseling, vocational interests have received limited attention in Industrial-Organizational (I-O) psychology. To assess the potential utility of interest inventories in the field of I-O psychology, 82 I-O psychologists with expertise in employee selection and equal employment opportunity law completed a survey assessing their expert opinion on the utility of interest inventories for employee selection decisions. Opinion on potential legal liability and discriminatory impact of the use of interest inventories was also assessed. Hypothesis 1, which stated a majority of respondents would indicate they have little to moderate knowledge of vocational interests, was supported. Hypothesis 2, which stated a majority of respondents would indicate agreement that interest inventories can be used for employee selection, was not supported. Hypothesis 3, which stated a majority of respondents would indicate agreement that more research into interest inventories is warranted, was supported. Hypothesis 4, which stated majority of respondents would indicate that the use of interest inventories would likely lead to legal liability for the employer, was not supported. Additional analyses were run to investigate other relationships of interest. Results of additional analyses indicated that participants indicated that interest inventories could be utilized in positive selection contexts as interest inventories likely may have incremental validity over traditional selection instruments. However, experts did not expect utility for interest inventories in negative

selection contexts. Consequently, the results of this study indicate interest inventories likely have an array of useful applications in I-O psychology. Further research is warranted to determine which of these applications will provide utility and whether or not selection contexts will prove to be among those applications. Additional implications and limitations of findings are discussed, and directions for future research are considered.

Introduction

Compared to many branches of psychology, Industrial and Organizational (I-O) Psychology is a relatively young field. With continued research developments and increasing consumer awareness, I-O Psychology is constantly evolving (Farnham, 2014; Katzell & Austin, 1992). Recent evidence (Van Iddekinge, Putka, & Campbell, 2011) suggests that some I-O practices, such as the use of noncognitive constructs, should be further explored. Further investigation into constructs not traditionally used for selection could lead to a better integration of psychological constructs and, ultimately, a more comprehensive understanding of employees and their work-related behaviors, the overarching goal of I-O psychology (Betz & Borgen, 2000; Cates, 1999; Katzell & Austin).

Vocational interests have received limited attention in I-O psychology (Van Iddekinge, Putka, et al., 2011). However, there have been a number of proponents for the increased utilization of interest inventories (Chope, 2011; Ehrhart & Makransky, 2007; Lent, Brown, & Hackett, 1994; Low, Yoon, Roberts, & Rounds, 2005; Nye, Su, Rounds, & Drasgow, 2012; Van Iddekinge, Roth, Putka, & Lanivich, 2011). Although arguments for and against interest inventories continue to grow, the question of the utility of using interest inventories for selection decisions remains. The purpose of the present study is to assess the utility of standardized interest inventories for use in employee selection contexts (e.g., hiring or promotion). Experts in employment law and selection were asked to provide their professional opinion regarding the utility of interest inventories in selection. Results of this study may contribute to guiding the research and use of interest inventories in I-O psychology and organizations. Following a review of the literature on

the background of and rationale for interest inventories, I will provide an overview of the current study and hypotheses.

Background of Interest Inventories

Vocational Inventories Defined

Vocational interests have been defined in many ways; however, a simplified definition of vocational interests is an individual's preferences for particular work activities and environments (Cole & Hanson, 1974; Van Iddekinge, Putka, et al., 2011). This definition is similar to the definition of attitudes, which have been defined as the subjective evaluations attached to people, objects, behaviors, and abstract concepts (Fabrigar & Wegener, 2010). Interests are important because they play a role in guiding work-related behaviors (Cole & Hanson; Fabrigar & Wegener; Van Iddekinge, Roth, et al., 2011). It is important to note that vocational interests are thought to be separate from, but related to, various constructs of personality (i.e., patterns of feeling, thinking, and behaving) and work values (i.e., perceived importance of goals and outcomes; Cole & Hanson; Van Iddekinge, Putka, et al.).

History of Interest Inventories

Assessment history. Tests designed to measure unobservable constructs (e.g., knowledge, attitudes) are frequently used in psychology. Interest inventories, self-assessments measuring vocational interests (i.e., interest in and/or preference for various work-related activities and environments), have roots in career counseling dating back to 1914 (Harrington & Long, 2013; Savickas, Taber, & Spokane, 2002). An array of interest inventories have been developed; however, many inventories have scales similar to those in Holland's Interest Typology, the most widely researched interest theory (Harrington &

Long; Savickas, et al.; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011).

Holland's Interest Typology. Holland's theory classifies characteristics, people, and environments into six typologies (or categories). These categories are Realistic (Doers), Investigative (Thinkers), Artistic (Creators), Social (Helpers), Enterprising (Persuaders), and Conventional (Organizers; Holland, 1973; Mount & Muchinsky, 1978; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011). According to Holland, people high in the Realistic category prefer practical, hands on activities (i.e., working with objects, tools, machines, animals etc.). People high in the Investigative category prefer intellectual, problem solving activities. People high in the Artistic category enjoy activities involving innovation and creativity. People high in the Social category enjoy activities involving others (i.e., helping, informing, training, curing, etc.). People high in the Enterprising category enjoy activities involving influencing and leading others for economic gain. Finally, people high in the Conventional category enjoy activities involving numbers, routine, and structure (Holland; Van Iddekinge, Roth, et al.).

Results of Holland-based interest inventories (e.g., Self-Directed Search, Vocational Preference Inventory, Strong Interest Inventory, Strong-Campbell Interest Inventory, etc.) are often three letter summary codes that indicate an individual's primary, secondary, and tertiary categories (Mount & Muchinsky, 1978; Savickas, et al., 2002). Summary codes are compared with occupational codes (i.e., three letter typology codes classifying the characteristics of job activities and environments; Mount &

Muchinsky) to assess congruence, that is, the degree of fit between the individual and the occupation/work environment.

Person-environment fit. Holland's Interest Typology theory assumes that people seek activities and environments that align with their interests (Holland, 1973; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011). As such, this theory is based on the ideology of congruence (i.e., similarity) between the characteristics of the person and the characteristics of his/her environment (i.e., person-environment, PE fit; Mount & Muchinsky, 1978). PE congruence is often operationalized as the agreement between an individual's interest summary code and an occupational code (Mount & Muchinsky; Spokane, Meir, & Catalano, 2000). However, PE congruence can also be conceptualized as perceived fit of interests with an occupation (person-vocation fit), job (person-job fit), or organization (person-organization fit; Ehrhart & Makransky, 2007; Kristof-Brown, Zimmerman, & Johnson, 2005). PE fit is of importance to I-O psychology because good fit can yield many desirable outcomes including positive attitudes and well-made decisions prior to employment (e.g., applicant attraction and job acceptance), and attitudes and behaviors during employment (e.g., job satisfaction, performance, avoidance of withdrawal behaviors, organizational commitment, and retention; Ehrhart & Makransky; Kristof-Brown, et al.).

Current state of interest inventories. Through the modification of existing assessments and the development of new ones, interest inventories have continued to evolve (Harrington & Long, 2013). Furthermore, throughout the years it has been suggested that interest inventories be used in conjunction with assessments measuring other constructs (e.g., aptitude, abilities, motivation, self-efficacy, values, and

personality) to understand behaviors such as career exploration and career choice (Betz & Borgen, 2000; Cole & Hanson, 1974; Van Iddekinge, Putka, et al., 2011). It is theorized that some combinations of these constructs will enable a more comprehensive understanding of an individual that can then be used to better predict desirable outcomes (e.g., job performance, retention, etc.; Betz & Borgen; Cates, 1999; Katzell & Austin; Van Iddekinge, Roth, et al., 2011). Because interest inventories have received a relatively small amount of attention in I-O psychology, one purpose of this study is to assess the general awareness and knowledge of vocational interests in the field of I-O.

Hypothesis 1: A majority of respondents will indicate that they have little to moderate knowledge of vocational interests.

Rationale for Utilizing Interest Inventories in Selection

Empirical Arguments

Numerous linkages between vocational interests and various outcomes have been supported. There is a fair amount of support for the use of interest inventories in fields outside of I-O psychology (e.g., career counseling and vocational behavior; Ehrhart & Makransky, 2007; Harrington, 2006; Mount & Muchinsky, 1978; Nye, et al., 2012; Spokane, et al., 2000). There is also support in for the use of interest inventories in the field of I-O psychology (Blau, 1987; Nye, et al.; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011); however, there has been limited empirical examination of interest inventories in the field of I-O psychology with seemingly mixed support (Mikulak, 2012; Van Iddekinge, Putka, et al.). This section of this document will highlight the existing support for interest inventories.

Relevant evidence in non-I-O fields. Some predictive relationships, such as interest inventories with academic performance (Mikulak, 2012; Nye, et al., 2012) and job choice (Harrington, 2006), have been empirically supported in the field of career counseling. Because of the student affairs emphasis in career counseling, research in this discipline focused primarily on investigating the predictive power of vocational interests in academic contexts (e.g., academic performance and career choice; Nye, et al.). Other relationships, such as relationships between interest inventories and job satisfaction (i.e., overall satisfaction, satisfaction with work, satisfaction with pay, satisfaction with promotions, satisfaction with supervision, and satisfaction with co-workers) and PE fit (Ehrhart & Makransky, 2007; Mount & Muchinsky, 1978; Spokane, et al., 2000), have been supported in other related fields (e.g., vocational behavior). Research has shown that congruent employees (i.e., employees with agreement or perceived agreement between their interest summary and occupational codes) are more satisfied than incongruent employees (Mount & Muchinsky). It is important to note that congruence-satisfaction correlations can be complicated and may be influenced by several extraneous factors such as perceived importance of the job and perceived importance of coworkers (Spokane, et al.). Results also reveal vocational interests are more predictive of perceived person-vocation fit and person-job fit than is personality (Ehrhart & Makransky).

Evidence in I-O. Other predictive relationships, such as interest inventories with outcomes including job knowledge (i.e., familiarity with the technical and abstract aspects of a job), job performance (i.e., effective and successful completion of job duties and tasks), job involvement (i.e., psychological identification with job), as well as turnover intentions and behavior have been supported in the field of I-O psychology

(Blau, 1987; Nye, et al., 2012; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011). Based on the supported relationships between interest inventories with job and organization outcomes, other relationships can be hypothesized; these include the relationships between interest inventories and personality assessments administered with a work context frame-of-reference (Hunthausen, Truxillo, Bauer, & Hammer, 2003) or non-cognitive constructs such as motivation and core self-evaluation (Van Iddekinge, Putka, et al.; Van Iddekinge, Roth, et al.).

Given the empirically-based evidence and speculation regarding the use of interest inventories in I-O applications (e.g., employee selection, placement, evaluation, and development; Kwaske, 2004; Muchinsky, 1999), another purpose of this study is to obtain expert opinion on whether interest inventories can be used for employee selection.

Hypothesis 2: A majority of respondents will agree interest inventories can be used for employee selection.

Administrative and Psychometric Properties of Interest Inventories

Administrative properties. Aside from proven and hypothesized relationships with other constructs and outcomes, there are many potential benefits to utilizing interest inventories for employee selection. Some administrative benefits include time and cost savings (Chope, 2011; N. Tippins, personal communication, June 26, 2013). The estimated time to complete an interest inventory is approximately 10 (e.g., Position Classification Inventory) to 20 minutes (e.g., Holland's Self-Directed Search; "John Holland's Self-Directed Search," 2013), which is comparable to other assessments used in I-O (Tippins). The cost of an inventory is approximately \$10 per individual and there are discounted group rates ("John Holland's Self-Directed Search"); these costs also are

comparable to other assessments used in I-O (Tippins). Other administrative benefits include administration, scoring, and interpretation (Kwaske, 2004). Many interest inventories can now be administered online, and include automatic scoring and reports (“John Holland’s Self-Directed Search”). Because many Holland-based interest inventories were designed as self-assessments, inventory items and results are easy-to-use and understand (“John Holland’s Self-Directed Search”).

Reliability. Vocational interests tend to be stable and yield reliable measures with coefficients of stability ranging from $r = .32$ to $r = .90$, with typical stability coefficients at approximately $r = .80$ (Harrington, 2006; Low, et al., 2005; Swanson & Hansen, 1988; Van Iddekinge, Roth, et al., 2011). There is longitudinal empirical support for the stability of vocational interests that exceeds that for personality measures (Low, et al.; Swanson & Hansen). This stability of vocational interests relates to the theory that vocational interests are developed through exposure to environments, people, activities, and/or ideas before early adulthood (Chope, 2011; Fabrigar, & Wegener, 2010; Lent, et al., 1994).

Validity. There is support for the predictive validity of interest inventories for a variety of important selection criteria (e.g., factors associated with job satisfaction and job performance; Mount & Muchinsky, 1978; Nye, et al., 2012; Savickas, et al., 2002; Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011). Some relationships are between interest inventories and outcomes that can be linked to bottom-line organizational efficiency, which can lead to increased profits. Examples of such outcomes include motivation, job performance, and retention (Judge, Thoresen, Bono, & Patton, 2001; Van Iddekinge, Putka, et al.; Van Iddekinge, Roth, et al.). That being said,

the overarching purpose of the proposed study is to investigate further the use of vocational interests and their potential to I-O psychology.

Hypothesis 3: A majority of respondents will agree that more research on interest inventories is warranted.

Legality: A Point to Consider

Instruments used in selection decisions are, by law, considered to be tests and are subject to all Equal Employment Opportunity laws (e.g., Title IV of the Civil Rights Act of 1964, 1972 and 1991; the Age Discrimination in Employment Act of 1967 (ADEA); the Americans with Disabilities Act of 1991 (ADA); etc.). Historically, interest inventories have not been used as the basis for selection decisions. It would be informative to provide an empirical basis to evaluate potential liability in using interest inventories for selection.

Exposure. Various theories have suggested that, as with attitudes, vocational interests are developed through exposure to environments, people, activities, and/or ideas (Fabrigar, & Wegener, 2010; Lent, et al., 1994). According to developmental vocational interest theories, a majority of interests are pursued and related skills developed during the adolescent years (Chope, 2011; Lent, et al.; Low, et al., 2005). This idea of early development (i.e., construct stability) has been empirically supported through longitudinal research findings (Harrington, 2006; Low, et al.; Swanson & Hansen, 1988).

Socialization. Some scholars argue that childhood socialization (e.g., gender and race socialization) provides limited exposure to various work-related activities. Valian (2014) argued that, despite the demographic changes in the workforce (i.e., changes in race/ethnicity, gender, and age; Chope, 2011; Fouad & Sprea, 1995) and social contexts

(e.g., social class, ethnicity, religion, sex, etc.), implicit interest schemas are stable and difficult to change (Fabrigar, & Wegener, 2010). Furthermore, Fouad and Mohler (2004) found that, for a number of interest inventories, men and women differ in interests at both item and scale levels, evidence that aligns with the occupational sex-role stereotyping (i.e., categorization of occupations based on gender) investigated by Albrecht (1976). That is, stereotyping in which occupational roles perceived as feminine (e.g., secretary, nurse, and housekeeper) are deemed more suitable for women, and occupational roles perceived as masculine (e.g., detective, auto mechanic, airplane pilot and truck driver) are deemed more suitable for men (Albrecht). This evidence for gender group differences is alarming because it may provide some support for potential disparate treatment (and employer liability).

Moreover, Turner, Unkefer, Cichy, Peper, and Juang (2011) found that young adults with disabilities had a distribution of interests and estimated abilities similar to young adults in the general population. However, only 31% of the disabled young adults surveyed were employed in jobs that matched their Holland code (Turner, et al.). This percentage may indicate misemployment and potential disparate treatment of disabled workers in addition to their underemployment (e.g., disabled persons unemployment rate of 14.5% compared to nondisabled persons unemployment rate of 6.5%; Bureau of Labor Statistics, 2014). It is important to note that there is evidence supporting the validity of interest inventories across races (Fouad & Mohler, 2004). More specifically, Fouad and Mohler found minimal group differences based on race or ethnicity.

Case law. As of 1973, there were no recorded judicial decisions involving direct challenges or affirmations of the use of interest testing in educational or employment

settings (Fitzgerald & Fisher, 1974). A cursory review of court cases by the author indicated that since 1973 this continues to hold true. That is, to date, the use of interest inventories has not been directly challenged in court. However, it is important to note that interest inventories have been mentioned or recommended in several lawsuits as a component of test batteries in education (i.e., claims filed under the Individuals with Disabilities Education Act, IDEA; *Carrie I. EX REL. Greg I. v. Department of Educ.*, 2012; *D.C. EX REL. T.C. v. Mount Olive Township Board of Education*, 2014; *DeLullo ex rel. DeLullo v. Jefferson Bd. of Educ.*, 1998; *Dudley v. Lower Merion School District*, 2011; *Edie F. Ex Rel. Casey F. v. River Falls School Dist.*, 2001; *Knight v. State of Ala.*, 1991; *United States v. Dallas County Com'n*, 1982) and disability benefits (i.e., claims filed under the Americans with Disabilities Act; *Burke v. Com. of Virginia*, 1996; *Losen v. Astrue*, 2009; *Melton v. Secretary of Health & Human Services*, 1990; *Neumerski v. Califano*, 1981; *Null v. Community Hospital Association*, 2009; *Shoemate v. Astrue*, 2008; *Sparks v. Barnhart*, 2004; *Thurn v. Apfel*, 1998).

Considering the changing workforce demographics (i.e., increased diversity in race/ethnicity, gender, and age; Chope, 2011; Fouad & Spreada, 1995), employment law (e.g., Title IV, ADEA, ADA, *Uniform Guidelines*, etc.) and guidelines regarding discrimination against protected classes (e.g., race/ethnicity, religion, sex, age, or disability), and mixed evidence for the use interest inventories with protected groups, a final purpose of this study is to investigate the perceived legality of interest inventories used in employee selection.

Hypothesis 4: A majority of respondents will indicate that the use of interest inventories could likely lead to legal liability for the employer.

Method

Participants

Participants were recruited to participate in the survey through multiple methods detailed in the Procedure section. The overall response rate for traceable recruitment methods (i.e., Society for Industrial and Organizational Psychology, SIOP, conference, mailing and email requests) was approximately 10.7% (n = 689); however, this rate does not account for participants that were contacted by more than one method. Response rates for traceable recruitment methods can be found in Table 1. Seven participants in the final sample indicated nontraceable or other recruitment methods (i.e., SIOP.org announcement, n = 4; email from co-worker, n = 1; letter, n = 1; and personal contact, n = 1).

Table 1.
Response Rates.

Method	Number Distributed	Percent Returned
Overall	689	10.7
SIOP Conference	131	35.7
Mailing Request	382	4.6
Email Request	176	5.7

Eighty-nine Industrial and Organizational Psychologists and Practitioners specializing in employment law and/or selection completed the online or paper survey (i.e., 38 completed the online survey; 51 completed paper copies). Seven respondents were not included in analyses as two indicated their place of business was not geographically located in the United States and five indicated that they were current graduate students, providing a final sample of 82. States represented included Virginia (n = 10, 12.2%), Illinois (n = 7, 8.5%), Minnesota (n = 5, 6.1%), California (n = 4, 4.9%),

Georgia (n = 4, 4.9%), and Texas (n = 4, 4.9%; note that Maryland, Ohio, Pennsylvania, Washington, Florida, Indiana, Michigan, North Carolina, Arkansas, Colorado, Connecticut, Hawaii, Kentucky, South Carolina, Missouri, and West Virginia were represented by 3 or fewer participants).

A majority of participants (65.9%, n = 80) were male. Approximately 89% (n = 81) of participants were White, 3.7% were Hispanic/Chicano/Latino, 2.4% were African American/Black, 2.4% were Asian, and 1.2% were Multi-Racial. As can be seen in Table 2, the age group of 35-45 years had the highest representation (n = 23, 28.0%), followed by 25-35 (n = 19, 23.2%) and 45-55 (n = 19, 23.2%), respectively. Additionally, 79.3% (n = 81) of participants indicated that their highest level of education was a PhD (one indicated JD), 18.3% indicated Master's, and 1.2% indicated other (i.e., ABD). Of those, 89.0% (n = 81) indicated their primary professional training was I-O Psychology.¹

Table 2.
Participant Ages.

Age Range	Percent n = 81
Under 25	0.0
25-35	23.2
35-45	28.0
45-55	23.2
55-65	12.2
65-75	12.2
Over 75	0.0

¹ 7.1% of participants that indicated their primary training was other (i.e., Clinical Psychology, cognitive psychology, MBA & Clinical Psychology, Psychometrics/Measurement, Quant Psych, Statistics/Psychometrics), 1.2% indicated Human Resources, and 1.2% indicated Business (i.e., Technology).

Participants reported working in a variety of employment sectors, with the majority working in private (48.8%) and university sectors (28.0%). See Table 3 for a complete list of employment sectors. Participants also reported a variety of job roles; 39.0% (n = 80) indicated they were consultants (two indicated Business Unit Manager and Manager of Consultants); and 23.2% indicated they were professors. See Table 4 for a complete list of job roles.

Table 3.
Primary Employment Sectors.

Employment Sector	Percent n = 81
Private	48.8
University	28.0
Government	7.3
Other (i.e., University and Private, Commercial/Consulting, Healthcare, Not-for-Profit, Retired)	7.3
Government	7.3
Public	6.1
Private and Public	1.2

Table 4.
Primary Job Role Categories.

Job Role	Percent n = 80
Consultant	39.0
Professor	23.2
Other (i.e., Consultant and Professor; Professor and Clinician; Department Chair; Grants Coordinator; Director of Test Development/Psychometrics; I/O Psychologist; Internal HR Specialist; Legal Counsel; Selection Researcher; R&D Director; Retired; SVP Research; Executive)	19.5
Specialized HR Practice (i.e., Assessment and Selection; Selection and Training; HR Analytics; Innovation Consultant; Talent Management - Organizational Effectiveness)	14.6
General HR	1.2

Instrument

The instrument developed for this study (refer to Appendix B) assessed expert opinion regarding vocational interest inventories. The questionnaire consisted of 20 items that measured opinion regarding interest inventories and the utility of using interest inventories for employee selection. Fifteen items used five-point graphic rating scales (i.e., 1 item assessing self-reported knowledge of interest inventories, 1 = *very little*, 2 = *little*, 3 = *moderate*, 4 = *above average*, 5 = *expert*; six items regarding the use of interest inventories, legal liability, and future research, 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither*, 4 = *agree*, 5 = *strongly agree*; seven items regarding the legal liability and specific potential discriminatory effects, 1 = *not at all likely*, 2 = *unlikely*, 3 = *somewhat likely*, 4 = *likely*, 5 = *extremely likely*; one item estimating the liability cost to an organization, 1 = *slight to none*, 2 = *slight*, 3 = *moderate*, 4 = *severe*, 5 = *extremely severe*). Three items used an open response format; one item used selective ranking response format (i.e., “please mark all that apply”); and one item used a forced choice response format (i.e., yes/no).

Procedure

Participants were contacted through multiple methods. First, a survey URL was posted on various networking outlets (i.e., SIOP and LinkedIn discussion boards, WKU I-O Facebook page; refer to Appendix C). Second, paper copies of the survey were distributed to SIOP members before and after eight EEO and selection sessions at the 29th Annual SIOP conference in Honolulu, HI in May 2014. Third, program coordinators for the graduate programs listed online by SIOP were sent an email requesting that they forward the study information to the appropriate faculty members (refer to Appendix D).

Finally, using a mailing list generated by SIOP, employment law and selection experts were mailed a postcard encouraging them to participate in the study (refer to Appendix E). Participants who received a recruitment postcard, email, or online posting notification requesting their participation in a brief online survey regarding information on interest inventories were able to go online to complete survey. Participants given a paper copy of the survey were asked to complete and return the survey in a pre-addressed stamped envelope. All participants were informed via an electronic message or formal document of the minimal potentials risks of participating in the study as well as the fact that participation in the survey is confidential and voluntary (refer to Appendix A). Participants were also informed that their completing and returning the survey indicated their informed consent.

Results

All four hypotheses were tested using a one-sample z -test for proportions, an analysis based on proportion of expected and actual responses, using the following formula:

$$Z = \frac{(\text{Observed \%}) - (\text{Hypothesized \%}) - \left(\frac{5}{n}\right)}{\sqrt{\frac{(\text{Hypothesized \%}) * (1 - \text{Hypothesized \%})}{n}}}$$

Hypothesis 1, which stated a majority of respondents would indicate they have little to moderate knowledge of vocational interests, was tested by a one sample z -test for proportion and was significant ($n = 82, z = 2.35, p < .05$). The mean rating for the item assessing knowledge of vocational interests was 3.24 ($SD = .92$); 64.6% of participants indicated very little, little, or moderate knowledge of vocational interest inventories.

Thus, Hypothesis 1 was supported.

Hypothesis 2, which stated a majority of respondents would indicate agreement that interest inventories can be used for employee selection, was tested by a one sample z -test for proportion and was not significant ($n = 82, z = -2.72, p > .05$). Only 36.6% of participants indicated they agreed or strongly agreed that interest inventories could be used as a component in employee selection decisions ($M = 3.10, SD = 0.94$). Therefore, Hypothesis 2 was not supported.

Hypothesis 3, which stated a majority of respondents would indicate agreement that more research into interest inventories is warranted, was tested by a one sample z -test for proportion and was significant ($n = 82, z = 6.77, p < .05$). Approximately 89% of participants agreed or strongly agreed that further research on interest inventories is warranted ($M = 4.21, SD = .62$). Thus, Hypothesis 3 was supported.

Hypothesis 4, which stated majority of respondents would indicate that the use of interest inventories would likely lead to legal liability for the employer, was tested by a one sample z -test for proportion and was not significant ($n = 81, z = -2.04, p < .05$). A majority of respondents indicated that it was not at all likely or it was unlikely that the use of interest inventories as a component in employee selection decisions would lead to legal liability for an employer; only 40.3% of participants indicated that it was somewhat likely, likely, or extremely likely that interest inventories could likely lead to legal liability ($M = 2.51, SD = .76$). Thus, Hypothesis 4 was not supported.

Additional Analyses

Use of interest inventories. Overall, participants indicated slight agreement that interest inventories are well-known assessments in I-O ($M = 3.48, SD = .97$). However, participants indicated disagreement with regard to interest inventories being commonly used in employee selection ($M = 2.00, SD = .77$).

Employee selection. Interestingly, a majority of participants indicated that interest inventories may have incremental validity over traditional selection procedures in personnel decisions for training (54.9%), hiring (53.7%), and lateral transfer (53.7%). See Table 5 for a complete list of selection decisions for which respondents expected incremental validity for vocational interest inventories.

Table 5.
Frequency of Expected Incremental Validity of Interest Inventories for Specific Personnel Decisions.

Selection Decision or Procedure	Percent n = 82
Training	54.9
Hiring	53.7
Lateral Transfer	53.7
Promotion	41.5
Licensing and Certification	18.3
Downsizing	12.2
Demotion	8.5
Other (i.e., job fit, placement, realistic job preview, WIA/ABE initiatives)	4.9

Other I-O applications. A majority of experts (64.6%, n = 80) indicated that interest inventories can be used for other I-O purposes. Participants were asked to comment on which I-O applications they felt interest inventories could be utilized. Participants identified several applications including pre-employment selection decisions, assessment, individual development, and organizational development contexts. See Table 6 for a breakdown of other specific applications identified for interest inventories.

Liability and legality. Participants indicated that they do not agree that the use of interest inventories will lead to legal liability for a hiring organization ($M = 2.71$, $SD = .92$). In fact, the mean rating for interest inventories resulting in potential legal liability was 2.51 ($SD = .76$). The correlation between agreement that the use of interest inventories will lead to legal liability and likelihood that the use of interest inventories

will lead to legal liability was $r = .62$ ($p < .01$). Moreover, participants did not agree that the use of interest inventories is likely to have a discriminatory effect on legally protected groups ($M = 2.40$, $SD = .98$).

Table 6.
Other Uses for Interest Inventories.

Category	Number of Responses	Percent of Responses n = 91
No Additional Uses Identified	33	
Miscellaneous	4	4.9%
Pre-employment Applications	10	11.0%
Job Seeking Behaviors and Recruitment	6	
Job Design and Classification	3	
Realistic Job Previews	1	
Selection Decisions	19	20.9%
Placement	7	
On-Boarding, Training, and Job Rotation	4	
Restructuring and Workforce Planning	8	
Assessment	8	8.9%
Attitudes (e.g., engagement, satisfaction)	5	
P-E Fit (e.g., Person-Organization, Person-Job)	3	
Individual Development	39	42.9%
Coaching	12	
Advising and Counseling	11	
Career Pathing and Planning	8	
Career Development	5	
Leadership	3	
Organizational Development	11	12.1%
Group and Team Development	5	
Organizational Change and Design	4	
Mentorship Programs	2	

There was a moderate correlation between agreement that the use of interest inventories will lead to discriminatory effects and agreement that the use of interest inventories will lead to legal liability ($r = .47, p < .01$). Participant demographic characteristics were correlated with perceptions of potential discriminatory impact of interest inventories for specific protected groups. Age, gender, race and level of education were not significantly correlated with agreement that the use of interest inventories will lead to legal liability (Age $r = .05$; Gender $r = .15$; Race $r = -.02$; Education $r = -.13$, all p 's $> .05$), with estimated likelihood of legal liability (Age $r = .03$; Gender $r = .09$; Race $r = .03$; Education $r = -.11$; $p > .05$ for all), or with agreement with likely discriminatory effects on protected groups (Age $r = .05$; Gender $r = .12$; Race $r = .00$; Education $r = -.16$; $p > .05$ for all). However, age was significantly related to the likelihood of gender-based discriminatory impact ($r = -0.28, p < .05$); and education was related to likelihood of religion-based discriminatory impact ($r = -0.29, p < .01$), age-based discriminatory impact ($r = -0.26, p < .05$), and race-based discriminatory impact ($r = .27, p < .05$).

Across all protected classes, respondents indicated relatively low likelihood that the use of interest inventories would result in discrimination against a given protected group. Mean ratings ranged from unlikely for most protected groups to somewhat likely for gender and age. Note the large standard deviation for expectations of gender discrimination. See Table 7 for mean ratings for likelihood of discriminatory effects for each protected class. Table 8 contains correlations between ratings of expected legal liability and expected discriminatory effects; and expected legal liability and race-based

discrimination, gender-based discrimination, religion-based discrimination, national origin-based discrimination, and disability-based discrimination.

Table 7.
Likelihood of Discriminatory Effects.

Protected Class	<i>n</i>	Mean	Standard Deviation
Gender	81	3.11	2.38
Age	81	2.70	.96
National Origin	80	2.48	.89
Race	81	2.40	.79
Disability	80	2.34	.83
Religion	79	2.16	.81

Table 8.
Correlations for Legal Liability and Discriminatory Effects.

Variables	1	2	3	4	5	6	7	8	9
1. Discriminatory effect agreement	-								
2. Legal liability agreement	.473**	-							
3. Likelihood of legal liability	.365**	.623**	-						
4. Likelihood of race	.702**	.437**	.540**	-					
5. Likelihood of gender	.141	.111	-.011	.123	-				
6. Likelihood of religion	.334**	.200	.340**	.379**	.075	-			
7. Likelihood of national origin	.561**	.414**	.459**	.667**	.097	.622**	-		
8. Likelihood of age	.419**	.224*	.295**	.525**	.070	.542**	.611**	-	
9. Likelihood of disability	.443**	.347**	.271*	.419**	.070	.455**	.562**	.576**	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Potential Risks. Participants were asked to comment on potential risks involved in using interest inventories. Participants identified psychometric, legal, interpretation, application, and administrative risks. Table 9 contains the specific types of risks identified by the participants.

Table 9.
Potential Risks in Using Interest Inventories.

Risk Category	Number of Responses	Percent of Comments n = 108
No Additional Comments	13	
Miscellaneous	3	2.8%
Positive comments (i.e., similar to other selection tools and low legal risk)	8	7.4%
Psychometric	42	38.9%
Validation	12	
Social Desirability and Faking	11	
Job Relevance	5	
Face Validity	5	
Up-to-datedness	1	
Other	8	
Legal	23	21.3%
Adverse Impact	5	
Gender or Ethnicity Issues	6	
Discriminatory Effects	2	
Other	4	
Interpretation and Application	19	17.6%
Difference between Talent and Interest	8	
Groups and Teams	3	
Selection	2	
Scales and Scores Used	2	
Criterion Used	1	
Other	3	
Administrative	12	11.1%
Applicant Perceptions (e.g., fairness)	5	
Cost (i.e., financial, time)	4	
Organizational Perceptions (i.e., buy-in)	2	
Other	1	

Benefits. Participants were asked to identify I-O activities for which using interest inventories would be beneficial. Participants identified a number of I-O activities where interest inventories would be expected to have positive benefits. Table 10 includes the specific applications identified by the participants.

Table 10.

I-O Application with Likely Positive Benefits of Using Interest Inventories.

Category	Number of Responses	Percent of Comments n = 119
No Response	17	
Miscellaneous	3	2.5%
Assessment	53	44.5%
P-E Fit Measurement (e.g., Person-Organization, Person-Job)	26	
Attitudes (i.e., satisfaction, motivation)	8	
Retention	8	
Performance	7	
Engagement	4	
I-O Applications	29	24.4%
Individual Development (e.g., self-selection, career planning)	9	
General Selection Decisions	5	
Matching and Placement	5	
Coaching and Leadership Development	3	
Training	2	
Other (i.e., Biodata, RJP, Promotion, Team, Research)	5	
Psychometric Properties	16	13.4%
Predictive and Incremental Validity	9	
Face Validity	2	
Faking	2	
Job Relevance	1	
Other	2	
Non I-O Applications	11	9.2%
Personal Development (e.g., exploration)	5	
Career Counseling and Guidance	4	
Education	2	
Administrative	7	5.9%
Legal (i.e., realistic subgroup differences)	3	
Easy and Non-Threatening	2	
Other (e.g., ROI)	2	

Discussion

Within the field of I-O psychology, there has been limited attention and little empirical evidence generated for the use of interest inventories for traditional I-O activities (Van Iddekinge, Putka, et al., 2011). The current study assessed expert opinion on the utilization of interest inventories in I-O. Consistent with Hypothesis 1, a majority of experts in selection and employment law indicated they had little to moderate knowledge of vocational interests. However, participants indicated further research on vocational interests is warranted, consistent with Hypothesis 3.

While there generally was not support for the use of interest inventories in employee selection decisions (i.e., Hypothesis 2), participants identified several I-O applications for which interest inventories may be utilized, indicating that interest inventories may still be of value to I-O. Experts reported that interest inventories could be used for pre-employment purposes (e.g., investigating job seeking behaviors, recruitment, job design and classification, realistic job previews, etc.), assessment, individual development, and organizational development, as well as positive selection decisions such as placement, training, and restructuring. Furthermore, in positive selection contexts (e.g., training, hiring, lateral transfer, promotion), experts indicated that interest inventories may have incremental validity over traditional selection instruments; however, the same did not hold true for negative selection contexts (i.e., downsizing and demotion). Additionally, results of the current study reflect benefits supported or proposed in the existing literature (Blau, 1987; Chope, 2011; Ehrhart & Makransky, 2007; Harrington, 2006; Kwaske, 2004; Mikulak, 2012; Mount & Muchinsky, 1978; Nye, et al., 2012; Spokane, et al., 2000; N. Tippins, personal communication, June 26, 2013;

Van Iddekinge, Putka, et al., 2011; Van Iddekinge, Roth, et al., 2011). Participants indicated potential utility of interest inventories for areas such as assessment (i.e., employee attitudes, performance, retention), I-O and non-I-O applications (e.g., pre-employment behaviors, education, career counseling), and attaining good psychometric (i.e., validity) and administrative (e.g., ease of administration) properties. Participants also indicated applications in two fields other than I-O (i.e., education and career counseling) that have found empirical support for the use of interest inventories

It is important to note that participants also indicated several potential risks associated with using interest inventories, particularly concerns with interpretation, the validation process, faking, and perceptions of fairness. Several participants reported that interest inventories are similar to any other assessment used in selection decisions, indicating that the risks associated with utilizing interest inventories are no different than risks associated with using other tests.

Despite the mixed evidence prior research has shown for differences between inventory item and scale scores for individuals in protected groups (Albrecht 1976; Chope, 2011; Fabrigar, & Wegener, 2010; Fouad & Mohler 2004; Fouad & Spreda, 1995; Harrington, 2006; Low, et al., 2005; Swanson & Hansen, 1988; Turner, et al., 2011; Valian, 2014), results from the current study indicate I-O experts believe that interest inventories are not likely to lead legal liability. Additionally, inconsistent with findings of differences in interest inventory scores for individuals with and without disabilities (Fouad & Mohler; Turner, et al.), participants indicated it was not likely there would be disability-based discriminatory effects in using interest inventories for selection ($M = 2.34, SD = .81$). However, consistent with prior research and arguments for gender

work schemas (i.e., differences in men and women at item and scale levels; Albrecht; Fabrigar, & Wegener; Fouad & Mohler; Valian), experts indicated that gender differences are somewhat likely ($M = 3.11$, $SD = 2.38$), suggesting interests inventories may potentially result in adverse impact for gender stereotyped jobs. Although the finding of possible gender-based adverse impact is consistent with the existing literature, the standard deviation for this item was large, indicating disagreement among the participants in their expectations. It is interesting to note that several participants reported faking as a potential risk of interest inventories, and indicated potential gender-based discriminatory effects may be null if in a hiring context job applicants have knowledge of the position, organization, and related interests.

Additional analyses were conducted to assess whether demographic characteristics were related to perceptions of the likelihood of legal liability and discriminatory effects. Results of these analyses indicated small significant relationships between age and gender-based discriminatory effects (as age increases the perceived likelihood of potential gender-based discriminatory effects decreases), education and religion-based discriminatory effects (as level of education increases the perceived likelihood of potential religion-based discriminatory effects decreases), education and age-based discriminatory effects decreases (as level of education increases the perceived likelihood of potential age-based discriminatory effects decreases), and education and race-based discriminatory effects (as age increases the perceived likelihood of potential gender-based discriminatory effects increases). However, each of these correlations was relatively small in magnitude and explained less than 5% of the variance.

As might be expected, the various items addressing expectations of interest inventories resulting in legal liability and specific types of discrimination generally were moderately to strongly correlated with each other (see Table 8). The strongest correlations were between agreement of potential discriminatory effects of interest inventories and their potential for race-based discrimination ($r = .70$), and for perceived likelihood of legal liability and agreement that interest inventories would result in legal liability ($r = .62$).

Limitations of Current Study

Participants in this study were I-O psychologists with expertise in employee selection and equal employment opportunity law. As such, they are quite knowledgeable about selection instruments, their use, and potential positive and negative outcomes associated with their use. However, the results of this study are opinions and are not actual results of interest inventory use. Although expert opinion is valuable, further empirical evidence (i.e., validity evidence) supporting the use of interest inventories in employee selection decisions is needed. Another limitation of this study is the relatively small sample size. This limitation is, in part, due to the relatively small population of I-O psychologists and, in part, due to the time constraints of completing the study. Mail and email request were only sent once; multiple requests may have increased the response rate. A final limitation of this study is that the sample was of convenience, and standard errors for the convenience sample are unknown (Pedhazur & Schmelkin, 1991).

Future Directions

One direction for future research is to administer this survey to Society for Human Resource Management (SHRM) members with selection and employment law

expertise to assess whether there are differences in opinions of I-O and HR practitioners. Another direction for future research is to assess the opinions of legal professionals (e.g., attorneys) that specialize in employment law. Moreover, as there has been an increase in International Business Companies (i.e., companies with global locations), it would be interesting to investigate whether cultural differences exist in perceptions of the utility of interest inventories and, if so, whether these differences play a role in the actual utility of interest inventories in a selection context.

Conclusion

The current study assessed expert opinion on the utility of using interest inventories in employee selection contexts. Results indicated that experts in employment law and selection believed interest inventories will not likely lead to legal liability for an employer; however, experts indicated that interest inventories have limited expected utility for employee selection decisions and that future research is warranted. Interestingly, experts indicated that interest inventories could be used for other positive selection decisions such as placement, training, and restructuring. In these positive selection contexts (e.g., training, hiring, lateral transfer, promotion) experts indicated that interest inventories may have incremental validity over traditional selection instruments. However, the same did not hold true for negative selection contexts (i.e., downsizing and demotion), as experts did not perceive utility of interest inventories for this type of personnel decision. Thus, the results of this study indicate interest inventories likely have an array of useful applications in I-O psychology. Further research is warranted to determine which of these applications will provide utility and whether or not selection contexts will prove to be among those applications.

Appendix A: Informed Consent

Professional Opinion on the Use of Interest Inventories in Employee Selection

This questionnaire is intended to assess the professional opinions of individuals with expertise in employee selection and EEO law about the use of interest inventories by organizations in a selection context.

Vocational interests have been defined many ways; a simple definition of vocational interests is an individual's preferences for particular work activities and environments (Cole & Hanson, 1974; Van Iddekinge et al., 2011). This definition is similar to the definition of attitudes, which have been defined as the subjective evaluations attached to people, objects, behaviors, and abstract concepts (Fabrigar & Wegener, 2010). Interests are important because they play a role in guiding work-related behaviors (Cole & Hanson, 1974; Fabrigar & Wegener). It is important to note that vocational interests are thought to be separate from, but related to, the constructs of personality (i.e., patterns of feeling, thinking, and behaving) and work values (i.e., perceived importance of goals and outcomes; Cole & Hanson; Van Iddekinge et al.).

An *interest inventory* is a self-assessment tool, used in career planning, that assesses one's likes and dislikes of a variety of activities, objects, and types of persons; the premise is that people in the same career (and satisfied in that career) have similar interests. Traditionally, interest inventories are used to help individuals find a suitable job by matching their interests with the interests of people in particular jobs.

This study is being conducted as the thesis research of an I-O graduate student at Western Kentucky University, Amy Mandelke. Answering this questionnaire should take no more than 10 minutes. Your participation in this study is greatly appreciated. Thank you.

All responses are anonymous. There is no personally identifying information requested; therefore, anonymity is assured. All results will be reported at the aggregate level (e.g., overall, males versus females, older versus younger, etc.). The measurements used in this study are questionnaires. Responding to the questionnaires are unlikely to cause any harm.

Completing and returning the packet of study materials indicates your informed consent to participate in this study.

Please return your completed study materials by Wednesday May 28, 2014.

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Paul Mooney, Human Protections Administrator
TELEPHONE: (270) 745-2129

Appendix B: Questionnaire

Please carefully read the following items. Respond by marking the number or blank you feel best represents your professional opinion. Thank you.

	Very Little	Little	Moderate	Above Average	Expert
1. How would you rate your knowledge of the discipline or content area of vocational interests?	1	2	3	4	5

Please use the following scale to respond to items 2 through 7.

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
2. Interest inventories, which measure vocational interests, are well-known assessments in I-O Psychology.	1	2	3	4	5
3. Interest inventories <i>are commonly</i> used as a component in employee selection decisions.	1	2	3	4	5
4. Interest inventories <i>should</i> be used as a component in employee selection decisions.	1	2	3	4	5
5. The use of interest inventories in selection is likely to have a discriminatory effect on legally protected groups.	1	2	3	4	5
6. The use of interest inventories in selection decisions will lead to legal liability for the hiring organization.	1	2	3	4	5
7. Further research on interest inventories is warranted.	1	2	3	4	5

Please use the following scale to respond to items 8 through 14.

How likely is it that the use of interest inventories:

	Not at all Likely	Unlikely	Somewhat Likely	Likely	Extremely Likely
8. as a component in employee selection decisions will lead to legal liability for the employer?	1	2	3	4	5
9. in selection will have a race-based discriminatory effect?	1	2	3	4	5
10. in selection will have a gender-based discriminatory effect?	1	2	3	4	5
11. in selection will have a religion-based discriminatory effect?	1	2	3	4	5
12. in selection will have a national origin-based discriminatory effect?	1	2	3	4	5
13. in selection will have an age-based discriminatory effect?	1	2	3	4	5
14. in selection will have a disability-based discriminatory effect?	1	2	3	4	5

Please answer the following question.

	Slight to None	Slight	Moderate	Severe	Extremely Severe
15. What do you estimate the liability costs to organizations of using interest inventories in employee selection procedures?	1	2	3	4	5

Please answer the following questions.

16. For which employee selection procedures do you think interest inventories will have incremental validity over traditional selection procedures? Please mark all that apply.

_____ Hiring

_____ Lateral transfer

_____ Promotion

_____ Demotion

_____ Licensing and Certification

_____ Training

_____ Downsizing

_____ Other: (Please specify) _____

17. Do you believe interest inventories could be used for any other I-O related purpose?

_____ Yes

_____ No

18. If you answered yes to the previous question, what I-O applications do you feel interest inventories can be utilized? (If you answered no to the previous question please write 'N/A')

Please answer the following questions.

19. In your opinion, what are the positive aspects of utilizing interest inventories in I-O?

20. In your opinion, what are potential risks of utilizing interest inventories in I-O?

DEMOGRAPHIC ITEMS

Questionnaire responses are anonymous and confidentiality will be maintained. Responses will be reported only at the aggregate level. However, we would like to analyze responses by various demographic characteristics (e.g., employment sector, gender, etc.). Please respond to the following demographic items.

1. How were you recruited to participate in this study?
 - Contacted at SIOP Conference
 - SIOP.org Discussion Board
 - SIOP LinkedIn Discussion Board
 - WKU I-O Facebook post
 - Email
 - Postcard
 - Other: (Please specify) _____

2. What is your gender?
 - Male
 - Female

3. What is your age?
 - Under 25
 - 25-35
 - 35-45
 - 45-55
 - 55-65
 - 65-75
 - Over 75

4. Please indicate the **primary** racial or ethnic group with which you identify.
 - African American/Black
 - American Indian/Alaskan Native/Aleut
 - Asian
 - Hispanic/Chicano/Latino
 - Middle Eastern
 - Multi-Racial
 - Native Hawaiian/Other Pacific Islander
 - White/Caucasian
 - Other: (Please specify) _____

5. What is your primary geographical location?
- Asia
 - Africa
 - North America
 - Central America
 - South America
 - Antarctica
 - Europe
 - Australia
- IF SELECT NORTH AMERICA:
Are you from the United States?
- Yes
 - No
- IF YES: What state are you from? _____
6. What is your highest level of education?
- Bachelor's degree
 - Current Graduate Student
 - Master's degree
 - PhD
 - Other: (Please specify) _____
7. What is the primary area of your professional training?
- I-O Psychology
 - Human Resources
 - Business
 - Other: (Please specify) _____
8. What is your current primary employment sector?
- Private
 - Public
 - Government
 - University
 - Other: (Please specify) _____
9. What is your current primary job role category?
- Consultant
 - General HR Practice
 - Specialized HR Practice (Please specify) _____
 - Professor
 - Other: (Please specify) _____

Thank you for taking the time to complete this survey!

If you should have any questions or would like additional information please feel free to contact the Principle Investigator at amy.mandelke706@topper.wku.edu.

Appendix C: Social Media Posts

SIOP.org Announcement:

Seeking respondents for an online survey on interest inventories.

Do you have *expertise in employment law or selection*?

- **If so:** please take 10 minutes to complete an online questionnaire regarding interest inventories and demographic information.
- **If not:** do you know someone who does and would you be willing to forward the below survey link to them?

Participation in this research is voluntary, and responses will be confidential. Furthermore, participants may stop the survey and withdrawal from the study at any time without penalty.

To complete this survey, simply click on the following link:
<http://bit.ly/IOInterestInventories>

Thank you in advance, and if you have any questions please contact Amy Mandelke, M.A. Candidate, at amy.mandelke706@topper.wku.edu.

Deadline for completing the survey: **June 30, 2014**

LinkedIn and Facebook Posts:

Seeking participants with expertise in employment law and/or selection to complete an online questionnaire for my Master's thesis research on interest inventories.

To complete this survey, simply click on the following link:
<http://bit.ly/IOInterestInventories>

Estimated completion time is 10 minutes, participation is voluntary, and responses are confidential.

Thank you in advance for your help, and if you have any questions please contact Amy Mandelke at amy.mandelke706@topper.wku.edu.

Appendix D: Email

Subject line: Inquiry: Assistance with Master's Thesis Research

Greetings I-O Psychology Graduate Program Contact!

You are receiving this email because I found your contact information listed on the SIOP.org Graduate Program website. I am contacting you because I am **seeking participants with employment law and/or selection expertise** to complete an online questionnaire for my Master's thesis research on interest inventories.

If you are not an employment law or selection expert I would greatly appreciate it if you would *pass along my survey information to any appropriate faculty and colleagues!*

With that, the estimated survey completion time is 10 minutes or less, participation is voluntary, and responses are confidential.

To complete this survey, go to the following link:
<http://bit.ly/IOInterestInventories>

If you completed and returned my paper survey at the SIOP conference, thank you. There is no need to complete it again.

Thank you in advance for your help, and if you have any questions please contact me at amy.mandelke706@topper.wku.edu.

Appendix E: Postcard

Do you have a few minutes to help?

WHO:

IO Psychologists with Employment Law and Selection Expertise

WHAT:

Complete an online questionnaire for Master's thesis research on Interest Inventories

WHEN:

By June 20, 2014, estimated time: 10 minutes or less

HOW:

Go to this case-sensitive link: bit.ly/IOInterestInventories

*If you completed and returned my paper survey at the SIOP Conference, there is no need to complete it again

Thank you! Please feel free to pass along survey information to appropriate colleagues.
Questions? Please email amy.mandelke706@topper.wku.edu

References

- Albrecht, S. L. (1976). Social class and sex-stereotyping of occupations. *Journal of Vocational Behavior, 9*, 321-328.
- Betz, N. E., & Borgen, F. H. (2000). The future of career assessment: Integrating vocational interests with self-efficacy and personal styles. *Journal of Career Assessment, 8*, 329-338.
- Blau, G. J. (1987). Using a person-environment fit model to predict job involvement and organizational commitment. *Journal of Vocational Behavior, 30*, 240-257.
- Bureau of Labor Statistics. (2014). *Economics News Release*. Retrieved from <http://www.bls.gov/news.release/empsit.t06.htm>
- Burke v. Com. of Virginia* (1996) 938 F. Supp. 320
- Carrie I. EX REL. Greg I. v. Department of Educ.* (2012) 869 F. Supp. 2d 1225
- Cates, J. A. (1999). The art of assessment in psychology: Ethics, expertise, and validity. *Journal of Clinical Psychology, 55*, 631-641.
- Cole, N. S. & Hanson, G. R. (1974). *Impact of interest inventories on career choice* (ED 095 370). Washington DC: National Institute of Education.
- Chope, R. C. (2011). Reconsidering interests: The next big idea in career counseling theory research and practice. *Journal of Career Assessment, 19*, 343-352.
- D.C. EX REL. T.C. v. Mount Olive Township Board of Education* (2014) Civil No. 12-5592
- DeLullo ex rel. DeLullo v. Jefferson Bd. of Educ.* (1998) 71 F. Supp. 2d 554
- Dudley v. Lower Merion School District* (2011) Civil Action No. 10-2749
- Edie F. Ex Rel. Casey F. v. River Falls School Dist.* (2001) 243 F.3d 329 (7th Cir.)

- Ehrhart, D. E., & Makransky, G. (2007). Testing interests and personality as predictors of person-location and person-job fit. *Journal of Career Assessment, 15*, 206-226.
- Equal Employment Opportunity Commission (1978). Uniform guidelines on employee selection procedures. *Federal register, 43*(166), 38295-38309.
- Fabrigar, L. R., & Wegener, D. T. (2010). Attitude structure. In R. F. Baumeister & E. J. Finkel (Eds.), *Advanced Social Psychology* (pp.177-216). New York: Oxford University Press
- Farnham, A. (2014, February 5) 20 fastest growing occupations. *ABC News*. Retrieved from <http://abcnews.go.com/Business>
- Fitzgerald, L. E., & Fisher, B. J. (1974). *Legal issues: Status report* (ED 095 366). Washington DC: National Institute of Education.
- Fouad, N. A., & Mohler, C. J. (2004). Cultural validity of Holland's theory and the Strong Interest Inventory for five racial/ethnic groups. *Journal of Career Assessment, 12*, 423-439.
- Fouad, N. A., & Spreda, S. L. (1995). Use of interest inventories with special populations: Women and minority groups. *Journal of Career Assessment, 3*, 453-468.
- Harrington, T. F. (2006). A 20-year follow-up of the Harrington-O'Shea Career Decision-Making System. *Measurement and Evaluation in Counseling and Development, 38*, 198-202.
- Harrington, T., & Long, J. (2013). The history of interest inventories and assessments in career counseling. *The Career Development Quarterly, 61*, 83-92.

- Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs, NJ: Prentice-Hall.
- Hunthausen, J. M., Truxillo, D. M., Bauer, T. N., & Hammer, L. B. (2003). A field study of frame-of-reference effects on personality test validity. *Journal of Applied Psychology, 88*, 545-551.
- John Holland's Self-Directed Search. (2013). Retrieved April 17, 2014, from <http://www.self-directed-search.com>
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological bulletin, 127*, 376-407.
- Katzell, R. A., & Austin, J. T. (1992). From then to now: The development of industrial-organizational psychology in the United States. *Journal of Applied Psychology, 77*, 803-835.
- Knight v. State of Ala.* (1991) 787 F. Supp. 1030
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*, 281-342.
- Kwaske, I. (2004). Individual assessments for personnel selection: An update on a rarely researched but avidly practiced practice. *Consulting Psychology Journal: Practice & Research, 56*, 186-194.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122.

- Losen v. Astrue* (2009) Civil Action No. 07-6140
- Low, D. K. S., Yoon, M., Roberts, B. W., & Rounds, J. (2005). The stability of vocational interests from early adolescence to middle adulthood: A quantitative review of longitudinal studies. *Psychological Bulletin*, *131*, 713-737.
- Melton v. Secretary of Health & Human Services* (1990) 737 F. Supp. 867
- Mikulak, A. (2012). Employee interests predict how they will perform on the job. *Observer*, *25*, 7.
- Mount, M. K., & Muchinsky, P. M. (1978). Person-environment congruence and employee job satisfaction: A test of Holland's theory. *Journal of Vocational Behavior*, *13*, 84-100.
- Muchinsky, P. M. (1999). Applications of Holland's theory in industrial and organizational settings. *Journal of Vocational Behavior*, *55*, 127-135.
- Neumerski v. Califano* (1981) 513 F. Supp. 1011
- Null v. Community Hospital Association* (2009) No. CIV-08-297-F
- Nye, C. D., Su, R., Rounds, J., & Drasgow, F. (2012). Vocational interests and performance: A quantitative summary of over 60 years of research. *Perspectives on Psychological Science*, *7*, 384-403.
- Pedhazur, E. J., & Schmelkin, L. P. (1991). Measurement, design, and analysis: An integrated approach. Hillsdale, NJ: Earlbaum.
- Savickas, M. L., Taber, B. J., & Spokane, A. R. (2002). Convergent and discriminant validity of five interest inventories. *Journal of Vocational Behavior*, *61*, 139-184.
- Shoemate v. Astrue* (2008) No. 8: 07-cv-152-T-TBM
- Sparks v. Barnhart* (2004) 334 F. Supp. 2d 1141

- Spokane, A. R., Meir, E. I., & Catalano, M. (2000). Person–environment congruence and Holland's theory: A review and reconsideration. *Journal of Vocational Behavior*, *57*, 137-187.
- Swanson, J. L., & Hansen, J. I. C. (1988). Stability of vocational interests over 4-year, 8-year, and 12-year intervals. *Journal of Vocational Behavior*, *33*, 185-202.
- Thurn v. Apfel* (1998) 994 F. Supp. 1156
- Turner, S., Unkefer, L. C., Cichy, B. E., Peper, C., & Juang, J. P. (2011). Career interests and self-estimated abilities of young adults with disabilities. *Journal of Career Assessment*, *19*, 183-196.
- United States v. Dallas County Com'n* (1982) 548 F. Supp. 794
- Valian, V. (2014). Interests, gender, and science. *Perspectives on Psychological Science*, *9*(2), 225-230.
- Van Iddekinge, C. H., Putka, D. J., & Campbell, J. P. (2011). Reconsidering vocational interests for personnel selection: The validity of an internet-based selection test in relation to job knowledge, job performance, and continuance intentions. *Journal of Applied Psychology*, *96*, 13-33.
- Van Iddekinge, C. H., Roth, P. L., Putka, D. J., & Lanivich, S. E. (2011). Are you interested? A meta-analysis of relations between vocational interests and employee performance and turnover. *Journal of Applied Psychology*, *96*, 1167-1194.