

HR Practitioner Knowledge Gap Highlighted

Is the study of psychology missing from Human Resources Practitioners bag of tricks?

**by
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Final Project

Presented to the Faculty of the Graduate School of
Saint Mary-of-the-Woods College
in Partial Fulfillment
of the Requirements
for the degree of

Master of Leadership Development

**Saint Mary-of-the-Woods College
February 13, 2021**

Is Psychology Missing from HR Training?

**Saint Mary-of-the-Woods College
Graduate Program in Leadership Development**

Date 2/13/2021

We hereby recommend that the Final Project submitted by: Sarah Anne Ely

Entitled: Is the study of psychology missing from Human Resources Practitioners bag of tricks?

Be accepted in partial fulfillment of the requirements for the degree of Master of Leadership Development.

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02/25/2021

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We certify that in this Final Project all research involving human subjects complies with the Policies and Procedures for Research involving Human Subjects, Saint Mary-of-the-Woods College, Saint Mary-of-the-Woods, Indiana 47876

Abstract

This thesis examines the knowledge gap between academics, clinicians, and human resource practitioners (HRP's) relative to the subject of psychometric testing. Employers are relying on psychometric testing to aid employment decisions, including hiring. However, psychometric tools are created by trained psychologists and sold to employers where HRP's are left to manage the tool's use. Unfortunately, this process design has a flaw that this thesis uncovers. The question is, how well are HRP's trained to manage such a complex tool, and if not, to what extent is the education gap between psychologists and HRP's specifically in psychometric testing. The goal is to understand where there is a difference in educational experiences so that academics and HRP's can understand how to reduce the knowledge gap. In reviewing past research studies and guidelines for industrial competencies, it is discovered that there is a large expectation gap that contributes to the knowledge gap between academics, clinicians, and HRP's. It is also discovered that there is a degree program that could help bridge the knowledge gap. This study's contributed to the field of Human Resource Management by providing a contrast to previously held beliefs that the knowledge gap between academics and HRP's was insurmountable and the solution might be training that already exists but is unknown to the general HRP population. This thesis also ends with a proposal of primary research to propel the conversation forward in finding practical solutions.

Keywords: human resource practitioner, psychometric testing, personality testing, knowledge gap

Dedication

This thesis is dedicated to my husband, who facilitated and encouraged me to continue on my educational path. It is also dedicated to my children, Ava and Chase, who endured the time my studies took my attention away from them. I also dedicate this thesis to my parents, as they were the cheerleaders that kept me charging forward. Lastly, I dedicate this to my Uncle Jim for his support and review of my work.

Acknowledgments

I want to thank Dr. Lamprini Pantazi for her insightful criticisms and request for excellence, which propelled me to excel beyond my expectations and allowed me to complete this body of work. I would also like to thank Professor Eric Hubbard for his detailed feedback that prepared me for this research paper.

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List of Terms

Term	Definition
American Psychological Association (APA)	The largest scientific and professional organization that represents psychologists in the United States.
Human Resource Practitioner (HRP)	A person who works within the human resources department in a company or organization.
Industrial and organizational (I/O) psychologist	A trained professional that focuses on the behavior of employees in the workplace. They apply psychological principles and research methods to improve the overall work environment, including performance, communication, professional satisfaction and safety.
Intelligence	The ability to acquire and apply knowledge and skills.
Likert Scale	A type of rating scale used to measure attitudes or opinions.
Meta-analysis	Examination of data from a number of independent studies of the same subject, in order to determine overall trends.
Personality	The combination of characteristics or qualities that form an individual's distinctive character.
Personality test	Any instrument used to help evaluate personality or measure personality traits.
Psychometrics	The measurement of mental traits, abilities, and processes.
Reliability	The degree to which the result of a measurement, calculation, or specification can be depended on to be accurate.
Traits	A distinguishing quality or characteristic, typically one belonging to a person.
Validity	The extent to which a concept, conclusion or measurement is well-founded and likely corresponds accurately to the real world.

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Introduction

Imagine working in a field where there is no such thing as a "typical" day. Responsibilities could range from working on a legal review, compensation review, workforce readiness review, or talent selection decisions. While each of these subject matters is imperative to a corporation's success, talent selection has become a critical focus for Human Resource Practitioners (HRP's). Recently increased psychometric testing usage has begun to help identify candidates that are the "best fit" for roles needed. In practice, it appears that there is an assumption that Human Resources Practitioners are competent to manage such a tool. However, it has been argued that there is a knowledge gap between academics, clinicians, and HRP's which makes the use of psychometric or personality tests in the workplace controversial. This thesis will discuss educational expectations between psychology and human resources practitioners to identify a knowledge gap, how big the knowledge gap is, and how it can be bridged with educational expectations.

Background and Context

The process of selecting and hiring new employees is a daunting task. In an article published by Forbes titled *The True Cost of a Bad Hire- It's More Than You Think*, the US Department of Labor estimated the cost of a bad hire to be as high as 30 percent of the employee's first-year earnings (Fatemi, 2016). "On average, each corporate job opening attracts 250 résumés. Of these candidates, four to six will be called for an interview, and only one will be offered a job" (Glassdoor, 2015). Matt Weston, managing director at Robert Half in the UK, says research shows "81% of business leaders reporting that it is more challenging now than five years ago to find suitable candidates, this is something that must change" (Percy, 2018). As companies have evolved to compete in a digital world, recruiting practices have also changed.

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It is no longer enough to review a candidate's education, experience, and technical skills on a resume. HR practitioners are now looking for candidates that offer soft skills in addition to hard or technical skills. "In a business climate dominated by human/machine collaboration, the skills that make us human are more important than ever" (Levit, Cartwright, & DeLong, 2018). Research conducted by LinkedIn and shared in their *2019 Global Talent Trends* report showed that 91% of talent professionals say that soft skills are just as necessary, if not more important, than hard technical skills. However, 57% of recruiters struggle to assess soft skills during the selection process (Chanler, Dye, Coppinger, Nieh, & Maris, 2019).

Many companies now use psychometric tools to identify candidates with needed soft skills to offset the talent selection challenge. In April of 2017, American Psychological Association published an article suggesting that psychometric tools' adoption rates could climb as high as 87 percent soon (Alloway, Cissel, 2017). One inconsistency is defining psychometric tools, as various companies describe them as assessments or even personality tests. In 2007, the U. S. Equal Employment Opportunity Commission (EEOC) stepped in to set a bench definition. "Personality tests and integrity tests assess the degree to which a person has certain traits or dispositions (e.g., dependability, cooperativeness, safety) or aim to predict the likelihood that a person will engage in certain conduct (e.g., theft, absenteeism)" (Equal Employment Opportunity Commission, 2007).

While the EEOC definition helped establish standards around what personality tests look like in the workplace, it did not provide training guidelines. Even though HRP's are administering the assessments, industry standards for HR education that include HR certifications do not include robust psychology training. Additionally, the need to integrate the education of clinical and organizational personality assessment applications was also acknowledged at the annual Society for Personality Assessment (SPA) convention in 2017

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(Shorey, 2018). Nevertheless, most articles published in the *Journal of Personality Assessment* (JPA) are clinically focused, leaving HRP's out of the discussion (Shorey, 2018). Moreover, Carol Gill's research suggests that there are cost/benefit hurdles in implementing evidence-based practices, including practices that impact the talent selection process. Therefore, neither academia nor HR practitioners are incentivized to change current learning practices (Gill, 2018).

Brief History of Personality Tests

Throughout history, scientists, psychiatrists, and psychologists have been studying human behaviors. Notable names include Darwin, Freud, Maslow, Watson, Briggs, Myer, and Gonzales-Frisbie. According to Oxford author James Butcher, Sir Francis Galton was the first to propose a questionnaire to measure mental traits. Following this proposal was Heymans and Wiersma, creating a scale rating survey years later (Butcher, 2009). Initially, the assessment was used by physicians, but then Robert Woodworth developed a self-reporting datasheet used to understand soldiers' thoughts and behaviors during World War I (Butcher, 2009). This development propelled the mainstream use of testing for various reasons, such as intelligence in schools and employment potential in the application process despite some validity concerns (Kumar, 2019).

As years passed, other tools were developed and expanded to include testing for traits like; extraversion, introversion, autonomy, submission, and neurotics. Swiss psychiatrist Herman Rorschach published the inkblot technique in the 1930s. Henry Murray and Christiana Morgan developed the Thematic Apperception Test (TAT) in the mid-1930s, and Hathaway and McKinley developed the Minnesota Multiphasic Personality Inventory (MMPI) in the late 1930s (Butcher, 2009). However, during this period, testing fell out of favor with the general employer public as validity concerns were raised due to disappointing results.

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It was not until World War II that personality testing resurfaced. The military looked to use tests to screen recruits for their abilities for highly specialized tasks, and organizations looked to increase hiring efficiency due to the industrial boom (Kumar, 2019) (Cavico, Mujtaba, Lawrence, & Muffler, 2015).

The image shows a Myers-Briggs Type Indicator card for a person named Lamb. The card is divided into two main sections: 'TYPE PROFILE' and 'INTERPRETIVE BREAKDOWN'. The 'TYPE PROFILE' section shows four bipolar scales: Extravert vs. Introvert, Sensing vs. Intuitive, Thinking vs. Feeling, and Judging vs. Perceptive. The 'INTERPRETIVE BREAKDOWN' section shows six bipolar scales: E-I (Group Sociability vs. Detachment), S-N (Imagination vs. Theorizing), T-F (Firmness vs. Logic), J-P (Spontaneity vs. Planning), CONF. (Worry vs. Dependence), and COMP. (Resistance vs. Stubbornness). There is also a 'MISC.' section with 'Enjoyment vs. Appreciation' and 'Made-up Mind'. The card includes fields for Name, Date, Sex, Age, Work, Unit, Type, and Form. The 'SCORES' section shows Cf, Cp, St, E, I, Sw, S, H, X, T, F, Hst, and J, P.

Figure 1. Myers-Briggs Type Indicator Card (1959). Adapted from Cangrade. Liana, E. (2018, June 04). The Origin and Future of Psychometrics. Retrieved January 16, 2021, from <https://www.cangrade.com/blog/hr-strategy/the-origin-and-future-of-psychometrics/>

Post-WWII, psychologists continued to develop tests with a focus on validity and reliability. In 1949, Cattell published the 16 Personality Factors (16PF), which then created the Big Five Personality Factors in 1960 (Butcher, 2009). Around this time, computers entered into the picture and began to interpret test results (Butcher, 2009). Since the 1960s, the science and practice of personality assessments have seen rapid expansion and growth. Computers and the internet have made the administration of tests easier and made the testing experience smoother. Couple this with an increasing value from employers around company

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culture and seeking out soft skills to complement team dynamics, the psychometric test industry has doubled in size in the last few years. "Personality testing is now a \$500 million industry, with growth rates estimated at 10 to 15 percent annually, and appeal to consulting firms, hedge funds and start-ups alike (Goldberg, 2019)."

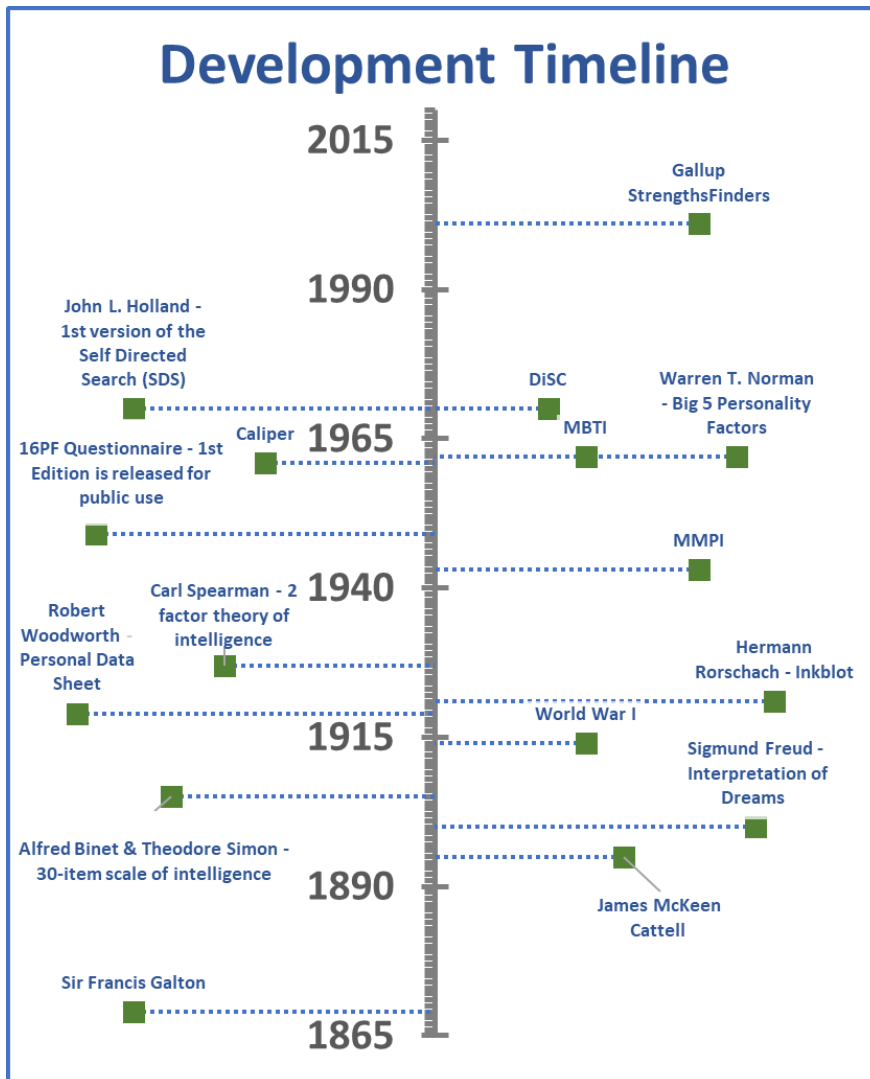


Figure 2. This figure illustrates the timeline of development for significant psychometric tests.

Problem Statement

The general problem is that interpreting psychometric reports requires specialist knowledge, but often, the responsibility for purchasing, administering, and interpreting the psychometric reports falls to the HR department. With hundreds of psychological tests on the

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market and different stakeholders having different interests, choosing a test is challenging.

Obtaining professional help in interpreting testing information is often necessary (Society for Industrial and Organizational Psychology- SIOP). However, frequently help provided is from a vendor that is looking to sell a product. It is also a conflicted market in which psychologists work to regulate norms and usage while non-psychologist work to improve usability and professionalism (Lundgren, Kroon, & Poell, 2019).

The specific problem is that while trained clinicians develop psychometric testing for the talent selection process, HRP's, who do not have time, resources, sufficient training, nor background knowledge, are left to manage the use of psychometric testing. The object of this study will be to examine the knowledge gap between psychologists and HR practitioners when it comes to buying, using, and managing psychometric tools. The results of this research will be to craft a proposal for primary research that will identify opportunities for proficiency training standards for HR practitioners.

Research Questions

- What are the difference and similarities of viewpoints on psychometric tools between psychologists and HR practitioners?
- How do psychologists and HR practitioners compare in training and education of psychometric tools?
- If there is a knowledge gap, what can be considered the next step to closing the gap?

Relevance and Importance of the Research

Talent management is a crucial issue for all companies today. Given the growing use of personality assessments in employment, it is essential to review training and education available to the HRP administering the assessment. According to the Society of Human Resource Management (SHRM), HRP's are divided on the usage of personality assessments.

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Some advocate personality assessments help identify ideal candidates, while others criticize that assessments can have discriminatory effects due to operator error (Rockwood, 2020).

The research conducted in this paper looks to contribute to the conversation regarding assessment in the workplace by bridging the knowledge gap between the trained psychologist and HR practitioners.

Literature Review

In the following section, the focus will be to describe how testing works specifically in an industrial setting and then discuss the current debate between academic and HR practitioners. Resources reviewed will be from both academia and the human resource industry perspective.

How Personality Tests Work

Intent of Test

Before understanding how tests work, it is essential to understand the test's intent or goal. Focusing on the workplace setting, employers use tests for candidate selection, team-building, and future work. For selection purposes, assessments look to give insight into an external candidate's personality fit for the organization. In other situations, personality tests are used as a team-building exercise to increase communication efficiency and identify soft skills for future positions and promotions.

Effective team building is based on understanding the people in the room and equipping them to be able to work more cohesively together. Using personality tests are a great way to identify tendencies, behaviors, ways of working, problem-solving, and communicating. The more you understand how the people in your team work, the better you can cultivate a culture that enables them to avoid issues. (Business News Daily, 2020)

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Types of Tests

Within the employment personality assessment industry, there are different types of personality tests. Two common types are self-report inventories and projective tests.

Self-report inventories involve having test-takers read questions and then rate how well the question or statement applies to them. Projective tests involve presenting the test-taker with a vague scene, object, or scenario and then asking them to give their interpretation of the test item. (Cherry, 2020)

The most frequent tests mentioned in research studies are the 16 Personality Factors (16pf), the Myers-Briggs Type Indicator (MBTI), the Caliper Profile (CP), the Gallup CliftonStrengths Finder, Minnesota Multiphasic Personality Inventory (MMPI), and DiSC Behavior Inventory (DiSC). Moreover, these tests appear in blogs and industry magazines like the Society of Human Resource Management (SHRM). (Diekmann, Konig, 2015) (HRMBD, 2016) (Feldman, 2020).

Each one of the assessments listed has a slightly different approach to uncovering personality traits. According to Gallup's website, a person will move through a Likert scale rating system of 177 statements. The goal is to choose which statements best describe themselves. The assessment results categorize into 34 "strengths" that fall into four domains, strategic thinking, relationship building, influencing, and executing (Gallup, 2020).

Myers-Briggs Type looks to connect behavior to preferences and judgment. "If people differ systematically in what they perceive and in how they reach conclusions, then it is only reasonable for them to differ correspondingly in their interests, reactions, values, motivations, and skills (MBTI)." MBTI has four preference domains that include labels such as favorite world (extraversion or introversion), information (sensing or intuition), decisions (thinking or feeling), structure (judging or perceiving). The combination of preferences creates a type

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from a multiple-choice survey (MBTI). Survey participants are given a four-letter code (e.g., ESTJ or ENFJ) to identify their personality type (MBTI).

Caliper Profile assessment looks to measure an individual's motivation and personality to help predict performance for a specific role. Like the previous assessments, Caliper Profile groups traits into four competency categories, leadership/persuasiveness, problem-solving and decision making, interpersonal/service orientation, personal organization, and time management. It consists of 112 to 180 behavior and cognitive questions in multiple-choice, scale, and true and false styles. Once completed, employers are given a number score between 1 and 99 for the test taker (Caliper Profile) (Wang, 2020). The prediction is that the higher the score, the better fit a candidate is for a position (Caliper Profile).

The 16 Personality Factors (16pf) is a survey comprised of 185 multiple choice questions estimated to take around 30 minutes to complete (16pf). According to the company's website, the questionnaire measures 16 traits grouped into five global factors: extraversion, tough-mindedness, self-control, anxiety, and independence (16pf). Depending on why the test was administered, reports are generated to share specific results. Competency reports are often used for talent selections. They will show the degree of candidate fit from poor to excellent. Other reports, such as management potential reports, show levels of workplace preferences (16pf).

Another assessment is DiSC Behavior Inventory (DiSC). According to the DiSC website, the tool measures dimensions of personality. This tool focuses on four aspects, dominance (D), influence (i), steadiness (S), and conscientiousness (C) (DiSC). Personalities are also expanded to eight variations of the dimensions depending on responses to 80 Likert scale survey questions. The survey can be administered online and is expected to take 15 to 20 minutes to complete (DiSC). The survey results are provided in a computer-generated

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report and identify behaviors, tendencies, and preferred work environment (DiSC). "The language of the narrative in your profile is supportive, personalized, and easily understood without the intervention of an assessment professional (DiSC)."

Unlike the previous assessments mentioned, Minnesota Multiphasic Personality Inventory (MMPI) is not a test that you can purchase online. It is considered a protected psychological instrument and can only be given and interpreted by a trained psychologist (Axelrod, 2016). This assessment's primary use is to identify mental health issues. However, it has been used for employment consideration of positions that are high risk of mental health issues, such as law enforcement (Axelrod, 2016). There are currently two different versions of the test: 567 true and false questions and another with 338 true and false questions (Axelrod, 2016). While a computer can administer the test, a psychologist reviews the results and creates a report evaluating the test takers' history and current psychological state (Axelrod, 2016).

Test	Number of Questions	Tool	Measures
16PF	185	Multiple-choice	Five global factors: extraversion, tough-mindedness, self-control, anxiety, and independence
MBTI	93	Multiple-choice	Levels of (extraversion or introversion), information (sensing or intuition), decisions (thinking or feeling), structure (judging or perceiving)
Caliper Profile	112 to 180	Multiple-choice / Likert Scale / True and False	Leadership/persuasiveness, problem-solving and decision making, interpersonal/service orientation, personal organization, and time management
CliftonStrengths	177	Likert Scale Rating	Levels of strategic thinking, relationship building, influencing and executing
MMPI	Either 338 or 567	True and False questions	MMPI-2 has ten clinical subscales that include depression, hysteria, paranoia, social introversion
DiSC	80	Likert Scale Rating	Levels of dominance (D), influence (i), steadiness (S), and conscientiousness (C)

Figure 3. Differences between the six popular psychometric tests.

As illustrated in these summaries, no one personality assessment is like another. Some programs generate codes, numbers, or reports. Some assessments provide information only to

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the employer, and others provide reports only to the test participant. The theory is that while personality and cognitive ability are separate constructs, they impact and relate to each other (Kyllonen, Kell, 2018). Each assessment company has a unique twist to measure current behaviors to predict future performance, and every website boasts having high levels of reliability and validity. With that being said, there is one assessment that is by far the most popular. It appears in publications and research alike. It is used in 26 countries, assesses employees, students, soldiers, and potential marriage partners (Menand, Kolbert, Aviv, 2018). "There are more than two thousand personality tests on the market, many of them blatant knockoffs of the MBTI, but Myers-Briggs is No. 1 (Menand, Kolbert, Aviv, 2018)." According to CPP, MBTI's exclusive publisher, around 80% of new hires at Fortune 500 companies are given the MBTI assessment (Chatterjee, 2015). However, in a conflicting statement, MBTI posts the following on their website under guidelines:

It is not ethical to use the MBTI instrument for hiring or for deciding job assignments.

However, knowledge of type theory may help people recognize why they may be satisfied or dissatisfied with their jobs, and knowledge of type almost always helps teams and co-workers communicate better. (MBTI)

Rationales why HR Practitioners use Personality Test for Employment

Despite the conflicting and complicated information presented in the previous section, many people advocate for using personality assessments in the workplace. One compelling reason to use personality testing for employment comes from Eric Krell. In an article published in SHRM's HR Magazine titled *Look Outside or Seek Within?* Krell compares hiring an internal candidate to an external candidate. The idea is that it is easier to promote internally than externally due to knowledge (Krell, 2015). With an internal candidate, management has intimate knowledge of their strengths, weaknesses, and past performance (Krell, 2015). However, identifying "fit" with an external candidate is very difficult. Adding

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personality assessments to the external candidate recruiting process helps uncover this key factor (Krell, 2015). Uzma Burki, a senior vice president at Amtrak, is quoted in a Society of Human Resource Management article suggesting personality testing is not a "silver bullet, but it is one piece of the strategy to hire the "right fit" individual (Meinert, 2020).

Another compelling reason to use personality tests for employment is cost. SHRM recently cited the Brandon Hall Group, a human capital research firm, with the below items to include in calculating a bad hire's cost.

- Recruitment advertising fees and staff time
- Relocation and training fees for replacement hires
- The negative impact on team performance
- The disruption to incomplete projects
- Lost customers
- Outplacement services
- Weakened employer brand
- Litigation fees (Frye, 2019)

Furthermore, Brandon Hall Group reported in 2015 that 69% of the companies they researched stated they have a broken interviewing process and are five times as likely to make a bad hiring decision (Laurano, 2015). Given this information, it is understandable why many HRP's enlist assessments to help with hiring decisions.

Criticism of Personality Tests

While there is some evidence that personality tests positively contribute to the decision-making process for employment, there is also much criticism of personality assessments. The first consideration is fakeability. Many personality assessments are self-reported surveys, which require a level of self-awareness and the ability to be honest (Moyle,

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Hackston, 2018). While this is not a problem if the results are reviewed exclusively by the test taker, it does become an issue if the results are used for future opportunities (Moyle, Hackston, 2018). Test takers could be influenced by impression management or self-presentation, which is the process by which people control how others perceive them (Leary, 2002).

When people are motivated to manage their impressions, the impressions that they try to convey are influenced by the roles that they occupy and the norms in the social context, the values of the individuals whose perceptions are of concern, how they think they are currently perceived, their self-concepts, and their desired and undesired selves. (Leary, 2002)

This theory leads candidates to select what they consider the "correct answers" instead of honest answers.

Another psychological concept that is mentioned in the criticism of personality tests is the Barnum effect.

The Barnum effect, also known as the Forer effect, is a psychological concept that refers to people's tendency to accept very broad generalizations as being accurate and specifically descriptive of their own personality or circumstances. This is especially true when the generalizations are positive, and the person making them is perceived as having some level of authority. (Ungvarsky, 2019)

The Barnum effect is one of the topics of debate for test validity. Those supporting personality assessments reference research studies with high criterion-related validities (Diekmann, Konig, 2015). This leads to a preference for using all relevant/compounded personality traits to maximize validity, thus reducing the Barnum effect (Diekmann, Konig, 2015). Contrary to this belief are researchers that challenge the correlations found in this

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research as the meta-analyses are too small to convince validity, thus reducing reliability (Diekmann, König, 2015).

In addition to the debates mentioned above, several legal issues arise with personality testing. Employment laws such as Title VII, the Americans with Disability Act (ADA), and the Age Discrimination in Employment Act (ADEA) all list requirements that employers must adhere to when giving personality tests. At the foundation, these laws state that personality tests would violate civil rights laws if used to discriminate against candidates for employment based on protected categories such as race, color, sex, national origin, religion, disability, and age. In addition to possible illegal disparate treatment from discrimination, tests can also be found illegal if they have a disparate adverse impact on a protected group (EEOC, 2014).

In one research article, it was noted that there were three possible ways personality tests could be discriminatory:

1. The test contains questions that employers would not be permitted to ask during an interview.
2. Tests eliminate candidates based on specific character traits that are typically possessed by certain minority groups.
3. Tests are standardized in a way that exhibits cultural bias against those that do not fit within a set norm (Cavico, Mujtaba, Lawrence, & Muffler, 2015).

Another legal protection comes directly from the EEOC's Informal Discussion Letter and involves medical considerations. The letter provides the below guidance as to if a test is considered to be "medical" in nature:

- Is it administered by a health care professional?
- Are they designed to disclose a medical condition, including mental impairment?

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- Is the employer looking to determine if the job candidate has a medical impairment? (Informal Discussion Letter, 2001)

Given these considerations from the EEOC, some consider the MMPI assessment to be a medical examination intended to identify mental conditions (Cavico, Mujtaba, Lawrence, & Muffler, 2015).

As mentioned above, discrimination has been subject to much debate over the years, and employers have been sued. Cases such as:

- Connecticut v. Teal (1982) - Requiring passing a written test that was not job-related and disproportionately excluded blacks is a violation of Title VII. (LexisNexis)
- Griggs v. Duke Power (1971) - Certain races can not be excluded from a job through testing even if there is no intent to discriminate. (LexisNexis)
- EEOC v. Daimler Chrysler Corporation (2005) – Violation of ADA when there was a failure to accommodate people for entry examinations and thus impacting employment. (Clearinghouse)
- Soroka v. Dayton Hudson Corporation (Target) (1991) – The use of a screening test violates privacy rights by coercing applicants to express their sexual orientation and religious beliefs. (LexisNexis)

These cases are all examples of discriminatory debates that employers should be mindful of to avoid legal liability (Cavico, Mujtaba, Lawrence, & Muffler, 2015).

Knowledge Gap Analysis

To a considerable extent, research has only been conducted recently regarding the knowledge gap between academics and the HRP with psychometric testing. To be clear, this is not to be confused with research on human resource topics, as there is a large volume of

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research articles on human resource management. In a reflective review, it seems that the knowledge transfer between evidence-based management (EBM) and organizational practice, let alone specifics for psychometric testing, has been a topic of debate for years.

Beginning research conducted on the knowledge gap appears in 1993 (Rynes et al., 2002). The growth in thought was developed by means of identifying the probability of its existence and then understanding reasons for failures to implement EBM (Rynes et al., 2002). Furthermore, a research study by Rynes and a team from the University of Iowa worked to understand to what level HRP's agreed with HR research findings and how HRP's obtained EBM knowledge. (Rynes et al., 2002) While the research looked at 35 HR-related research findings compared to HRP's beliefs, the result of this study indicated the following regarding talent selection:

- There is a notable difference in beliefs between research findings and HRP on the topic of performance predictions.
- There is a notable difference in beliefs between research and HRP's for both the nature and the usefulness of personality traits as a basis for selection (Rynes et al., 2002).

Moreover, this research reviewed sources that HRP's turn to for resolving problems. It was identified that the number one source for help is other HRP's. The second source was the SHRM website, and the last source HRP's would consider was academics (Rynes et al., 2002). In their conclusion, it was suggested that "the biggest gaps between research findings and practitioner beliefs concern some of the most central issues in HR: first, how to choose the best employees and, second, how to effectively motivate them through appropriate goal-setting and effective performance management (Rynes et al., 2002)." Rynes describes HRP's

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average level of knowledge as unimpressive and the survey results as a "best case" scenario given the sample group only contained the highest-level HRP's (Rynes et al., 2002).

What is essential to know is that this research study has been the benchmark for several additional studies. One of which was conducted again by Rynes in 2007. This time, the research focused on HRP journals and suggested that evidence was found that there is a lack of "coverage" given to academic research that would help bridge the knowledge gap of EBM (Rynes et al., 2007). There was also mentioned of obtainment of higher education for those in an HRP role. However, the suggestion of higher education was quickly refuted as not substantial enough of a fix. Two reasons given were:

1. academic texts books do not cover research findings,
2. those that teach in business school do not have enough credentials to transfer knowledge of the research process to bridge any gaps (Rynes et al., 2007).

Another follow-up research study focused on the cross-cultural difference with HRP's beliefs toward research findings. It replicated the Rynes et al. study among Dutch, Finland, South Korea, and Spain HR professionals (Sanders, K., van Riemsdijk, M., & Groen, B., 2008).

The results showed remarkable similarities with the American study: there are large discrepancies between research findings and practitioners' beliefs in some content areas, especially recruitment and selection. Dutch practitioners are somewhat more likely to agree with research findings when their education level is higher, when they read HRM professional journals more frequently and when they have a positive attitude towards the applicability and usefulness of academic research. (Sanders, K., van Riemsdijk, M., & Groen, B., 2008)

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Fast forward to 2017, Carol Gill, Associate Professor of Organisational Behavior with the Melbourne Business School in Australia, published a research review paper in the *Human Resource Management Review* titled *Don't know, don't care: An exploration of evidence-based knowledge and practice in human resource management*. In this paper, Gill not only acknowledges that part of the gap is how research articles are written and HRP's lack of exposure to the research, but she also suggests the following:

- HRP's lack the ability to implement EBM.
- The conflict between HRP's operating with humanism or utilitarian value proposition.
- Power dynamics in an organization between HRP, management, and employees.
- The low status of HR, leading to a rotation of HRP's into roles they are not adequately trained to hold and lack the ability to influence change.
- Poor continuing education of research knowledge updates post higher education (Gill, 2018).

Each of the above research studies focuses on the knowledge gap regarding research findings and HR practice in a broad scope. They all mention the talent selection process and even behavior prediction as one of the top issues HRP's fail to utilize academic research for assistance and best practice. Furthermore, a deeper dive into the specific topic at hand revealed several publications discussing perceptions and rank order of assessment usage, but only one article published in 2018 by Adrian Furnham examines the academic/practitioner knowledge gap regarding assessments. Titled: *The Great Divide Academic Versus Practitioner Criteria for Psychometric Test Choice*, a survey of 145 HRP's were asked about their knowledge with respect to choosing and using psychometric testing (Furnham, 2018). The results showed that the highest selection criteria were validity, reliability, candidate, and

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accessor feedback, along with employees' acceptability (Furnham, 2018). In the conclusion of the study, Furnham, a psychology professor with the University College London and person listed on HR Magazine's 2019 Most Influential list in the UK, states: "These results contradict the somewhat skeptical, if not cynical, personal observations in the first part of this article (Furnham, 2018) (Creber, 2019)."

Although these results seem promising, it appears that Furnham's research limitations identify significant study gaps. "It is an oversight that information was not collected from respondents as to whether they had these certificates or had attended any other similar course, as this would no doubt strongly influence their responses to the questionnaire (Furnham, 2018)." Additionally, a reviewer raised several selection criteria that were missing from the survey. Items such as training, ongoing support, and available advice, were not included in the survey and could have impacted the results (Furnham, 2018).

In switching perspectives from academic research articles to HR industry research publications, a telling survey was completed by Personnel Today in conjunction with Network HR in 2015 regarding psychometric testing (Moss, 2015) (Crush, 2015). With 350 HRP's responding to a survey on psychometric testing, results showed:

- 52% used psychometric testing for selection purposes (Crush, 2015)
- 70% believed that testing required specific training to understand the tools (Crush, 2015)
- 70% used tests from "off the shelf" (Moss, 2015)
- 30% said they were not required to participate in training before administering tests with candidates (Moss, 2015)
- 80% of respondents had never actually been through a test themselves (Crush, 2015)

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This survey has highlighted not only the appetite for a greater understanding of existing psychometric tools but also a desire to seek new and innovative methods of qualifying and assessing future hires, said Chris Rowlands, director at Network HR Recruitment. (Moss, 2015)

Unfortunately, these were the only relevant articles on psychometric testing that mentioned training and contained survey data. This search included a review of the SHRM online resource library.

Education Comparison Psychologists vs. HRP's

Up to this point, a limited research review has indicated there is a large knowledge gap between academics and HRP's regarding psychometric testing. Still, it is prudent to review the current training/education standards between psychologists and HRP's. While it is understood that there will be differences between training and education for the two roles as one position is clinical and the other is non-clinical, it is the degree to which expectations are established that is noteworthy to this study.

There are two professional organizations that appear to set benchmarks for proficiency in each profession. It would be the American Psychological Association (APA) for those in psychology, and for those in HR, it would be Society for Human Resource Management (SHRM). Each organization has published its own set of guidelines for professional knowledge and education.

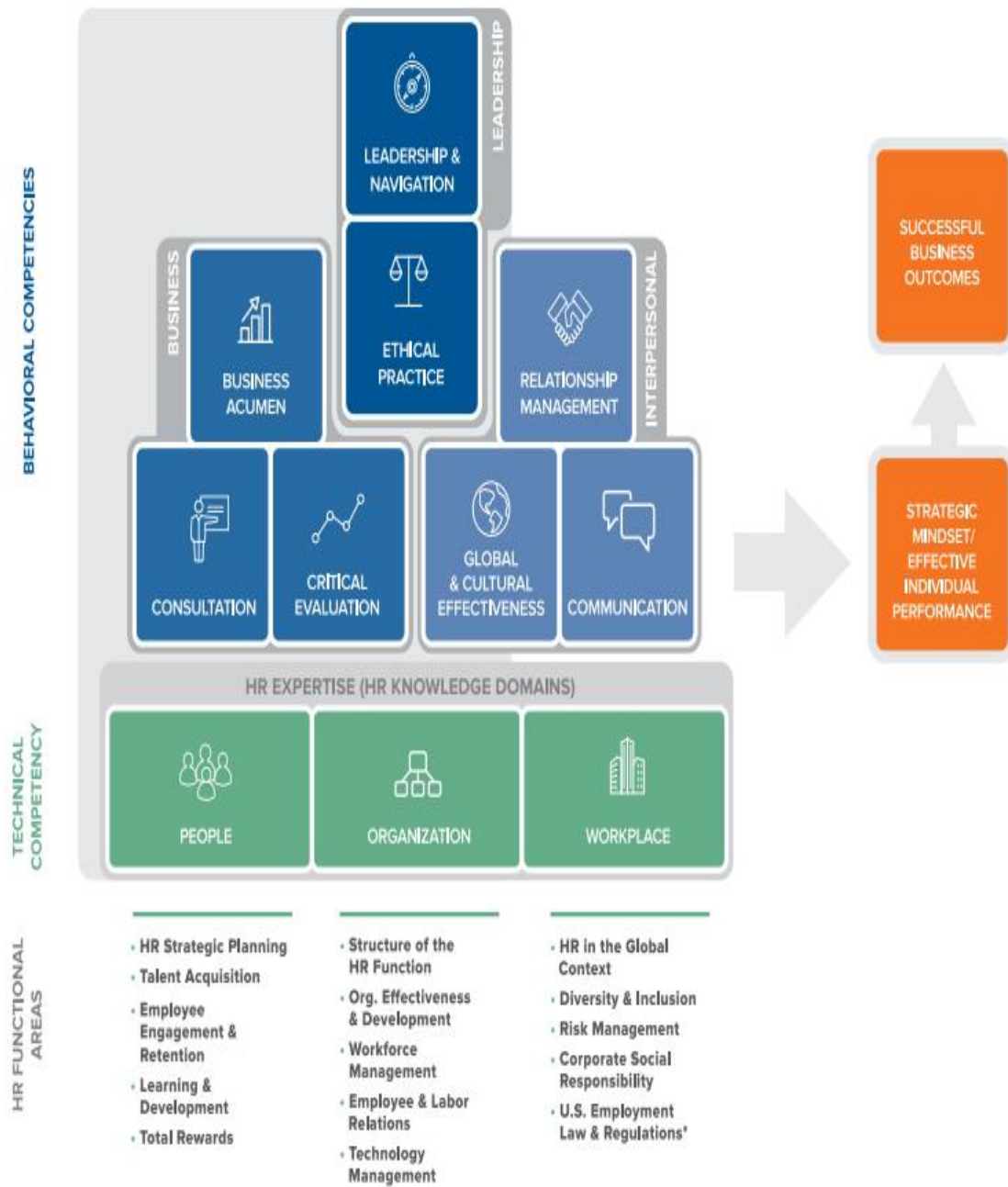
For APA, a task force containing diverse expertise in psychological assessments was created in 2017 to establish standards specifically for assessments (American Psychological Association, 2020). It is noted that there was a need for the guidelines as psychological assessments are a competency that is broadly agreed upon, and therefore training programs lacked consistency in standards (American Psychological Association, 2020). In response, a

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guideline (24 pages) was created to describe standards regarding seven domains of study: theory, psychological assessment process, psychometrics, tests and methods, ethics/legal/professionalism, diversity, and supervision for psychometric testing (American Psychological Association, 2020). It is important to note that APA is also an accrediting agency that many institutions and training programs set their curriculum's quality by seeking accreditation status. According to APA's accreditation website, there are currently 1,215 accredited programs in the US that use APA's guidelines. Therefore, students who graduate with a psychology degree from an accredited institution will have been exposed to and met psychometric training guidelines.

In comparison, SHRM published a 72-page guidebook titled *SHRM Body of Competency and Knowledge* in 2018. There are eight behavioral competencies and three technical domains within the guidebook with 15 functional areas of knowledge. (Figure 4.) On page 38 of the guidebook, the functional area of talent acquisition is outlined. It is here that there is a mention of knowledge of the concept of selection assessments that include job knowledge, non-cognitive tests, and assessment centers, along with interviewing (SHRM, 2018). Competency of knowledge is determined by passing a certification exam where only 17% of the exam contains people domain questions, the domain in which psychometric testing would fall under (Figure 5.) (SHRM, 2020). Thus, the likelihood of content from psychometric assessments to be present on the exam is low; therefore, exam prep classes would most likely not cover the topic in great detail. Furthermore, continuing education credits are needed to maintain credential levels; however, credit obtainment is up to the HRP to determine and again presents a low likelihood that with 15 functional areas of knowledge, that psychometric testing will be an essential training selected. This lack of priority in training is further supported by a recent article on Indeed, where the top 10 technical HR skills to include on a resume do not include psychometric testing (Indeed, 2020).

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* Applicable only to examinees testing within the U.S.

Figure 4 - SHRM Body of Competency & Knowledge (SHRM BoCK). Adapted from Society for Human Resource Management. (2018). SHRM BODY OF COMPETENCY AND KNOWLEDGE [Brochure]. Alexandria, VA: Author. Retrieved January 01, 2021, from https://www.shrm.org/certification/recertification/Documents/18-1534%202019%20BoCK_WEB.pdf. Copyright 2020 by SHRM.

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BEHAVIORAL COMPETENCY CLUSTERS	ITEM TYPE
Leadership (13%)	Situational Judgment (40%) Foundational Knowledge (10%)
Business (18.5%)	
Interpersonal (18.5%)	

HR KNOWLEDGE DOMAINS	ITEM TYPE
People (17%)	HR-Specific Knowledge (50%)
Organization (17%)	
Workplace (16%)	

Figure 5. Distribution of Test Items by Content and Item Type. Adapted from SHRM CERTIFICATION. (n.d.). Retrieved January 01, 2021, from <https://www.shrm.org/certification/about/descriptions-of-exams/Pages/default.aspx>. Copyright 2020 by SHRM.

While these two organizations dominate their respective industries, it was discovered that there is another professional association that has a focus on both psychology and the business environment. The Society for Industrial and Organizational Psychology (SIOP) published its own guidelines for training and education for master 's-level and doctoral student programs within the I-O psychology study (Botsford Morgan et al., 2016). According to APA, the I-O psychologist focuses on employee behavior and apply psychological principles to improve the work environment (American Psychological Association (APA), 2013). These guidelines, approved by the APA in August of 2017, include individual assessments (Botsford Morgan et al., 2016).

Individual assessment incorporates skill in individual testing, interviewing, and appraisal techniques for the purpose of evaluating ability, personality, aptitude, and interest characteristics. Individual assessment also requires identifying, developing, selecting, and/or using the appropriate means for such assessment, and communicating the results and interpretation of assessment accurately in both face-to-face and written form. (Botsford Morgan et al., 2016)

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General Knowledge & Skills	
1	Ethical, Legal, Diversity, and International Issues
2	Fields of Psychology
3	History and Systems of Psychology
4	Professional Skills (Communication, Business/Research Development, Consulting, and Project-Management Skills)
5	Research Methods
6	Statistical Methods/Data Analysis
Core Content	
7	Attitude Theory, Measurement, and Change
8	Career Development
9	Criterion Theory and Development
10	Groups and Teams
11	Human Performance
12	Individual Assessment
13	Individual Differences
14	Job Evaluation and Compensation
15	Job/Task/Work Analysis, Competency Modeling, and Classification
16	Judgment and Decision-Making
17	Leadership and Management
18	Occupational Health and Safety
19	Organization Development
20	Organization Theory
21	Performance Appraisal/Management
22	Personnel Recruitment, Selection, and Placement
23	Training: Theory, Delivery, Program Design, and Evaluation
24	Work Motivation
Related Areas of Competence	
25	Consumer Behavior
26	Human Factors

Figure 6. Areas of Competence to Developed in I-O Psychology Programs. Adapted from "Guidelines for education and training in industrial/organizational psychology," by the Education and Training Committee, 2016, SIOP Online. Retrieved January 2, 2021, from https://www.siop.org/Portals/84/Educators/SIOP_ET_Guidelines_2017.pdf. Copyright, 2016, by Society for Industrial and Organizational Psychology, Inc.

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	General Knowledge & Skills	Formal Course Work	Independent Reading/	Supervised Experience /Field Research	On-The-Job training	Modeling/ Observation	Involvement in Funded Research	Collaborative Research
1	Ethical, Legal, Diversity, and International Issues	*	*	*	*	*	*	*
2	Fields of Psychology	*	*				*	*
3	History and Systems of Psychology	*	*	*	*	*	*	*
4	Professional Skills (Communication, Business/Research Development, Consulting and Project-Management Skills)	*	*				*	*
5	Research Methods	*	*	*		*	*	*
6	Statistical Methods/Data Analysis	*	*	*		*	*	*
Core Content								
7	Attitude Theory, Measurement, and Change	*	*		*		*	*
8	Career Development	*	*	*	*		*	*
9	Criterion Theory and Development	*	*	*	*		*	*
10	Groups and Teams	*	*	*		*	*	*
11	Human Performance	*	*	*	*		*	*
12	Individual Assessment	*	*	*	*	*	*	*
13	Individual Differences	*	*	*			*	*
14	Job Evaluation and Compensation	*	*	*	*		*	*
15	Job/Task/Work Analysis, Competency Modeling, and Classification	*	*	*	*		*	*
16	Judgment and Decision-Making	*	*				*	*
17	Leadership and Management	*	*	*		*	*	*
18	Occupational Health & Safety	*	*	*			*	*
19	Organization Development	*	*	*	*	*	*	*
20	Organization Theory	*	*	*			*	*
21	Performance Appraisal/Management	*	*	*	*	*	*	*
22	Personnel Recruitment, Selection, and Placement	*	*	*	*		*	*
23	Training: Theory, Delivery, Program Design, and Evaluation	*	*	*	*	*	*	*
24	Work Motivation	*	*	*	*		*	*
Related Areas of Competence								
25	Consumer Behavior	*	*	*			*	*
26	Human Factors	*	*	*			*	*

Figure 7 -Means of Training the Recommended Competencies Adapted from "Guidelines for education and training in industrial/organizational psychology," by the Education and Training Committee, 2016, SIOP Online. Retrieved January 2, 2021, from https://www.siop.org/Portals/84/Educators/SIOP_ET_Guidelines_2017.pdf. Copyright, 2016, by Society for Industrial and Organizational Psychology, Inc.

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Unfortunately, I-O psychology degrees are not commonly known to be of value in the HR profession. According to the US Census Bureau 2018 reports, there are 2.61 million I-O psychologists. Of that number, the largest volume of graduates work as elementary and middle school teachers, and only 1.98% are HRP's (the Census Bureau, 2018). Likewise, 41.2% of HRP's hold a bachelor's degree with a business major compared to 9.08% with a psychology major. Data changes when filtering to view HRP's with doctorate degrees; 61.4% have a psychology major (the Census Bureau, 2018). This data suggests that as an HRP has the occupational experience, there is an increased awareness and interest in learning more about psychology, as indicated in the HR personnel magazine survey.

Diving a bit further into the suggested educational path for HRP's is an article on the SHRM site titled: "*Inspiration for Starting an HR Career without Prior Experience*" by Steven Lindner, Ph.D. As indicated by the title, the article suggests that one does not need a formal education to get into the HR profession.

Most of us got into HR by way of something, not directly HR related. Be it an internship, an opportunity to transfer into an HR role from another department, the result of a cross-functional corporate training program, or just happenstance.

(Lindner, 2020)

Another article posted on SHRM titled "*Is Earning an Undergraduate Degree in HR the Best Way to Prepare for an HR Career?*" The article, posted in 2017, presents two opposing viewpoints regarding HR candidates' priority getting a degree or obtaining work experience. One person argues that, yes, HR candidates should get a formal education degree due to SHRM survey feedback.

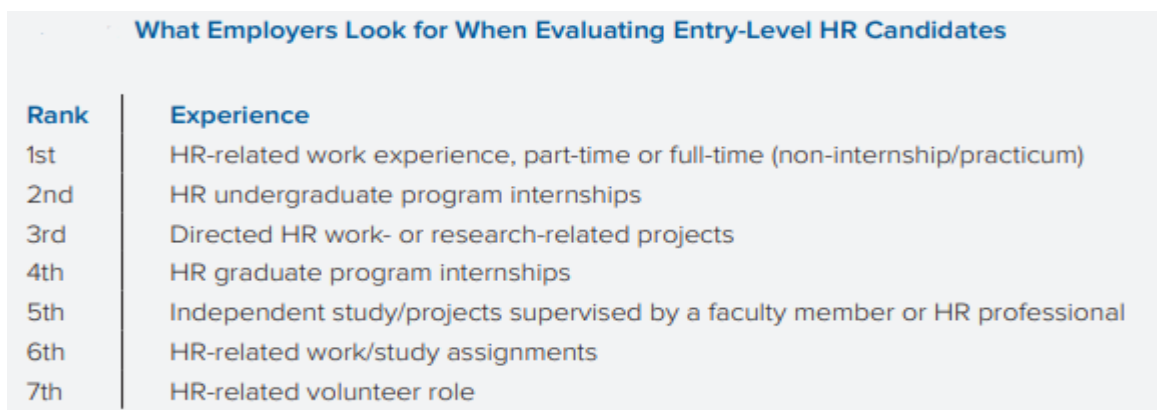
For example, in a recent Society for Human Resource Management (SHRM) survey, 70 percent of employers said they sought HR candidates with a bachelor's degree in

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HR, while 59 percent said they favored candidates with a bachelor's degree in business with an HR concentration. (SHRM, 2017)

However, in the same article, another person offered conflicting advice citing another SHRM survey. "The value of work experience was confirmed by a recent SHRM survey: Employers said their No. 1 preference when evaluating and hiring entry-level HR professionals is "HR-related" work experience (SHRM, 2017)."

Additional searching of the SHRM website did little to reduce confusion on the matter. Narrowing search requests to I-O psychology yielded no results. However, SHRM did publish a Human Resource guidebook for undergraduates and graduates programs (Lockwood et al., 2017). Initially created in 2006, it was updated in 2017. Interestingly, conclusions from 2004 and 2005 SHRM symposiums, focus groups in 2009, and surveys completed in 2012 and 2017 were used to shape perspectives for the guidebook (Lockwood et al., 2017). Survey participants were SHRM academic members, SHRM HR professionals, with Figure 8 and Figure 9 below illustrating feedback conclusions (Lockwood et al., 2017).



Rank	Experience
1st	HR-related work experience, part-time or full-time (non-internship/practicum)
2nd	HR undergraduate program internships
3rd	Directed HR work- or research-related projects
4th	HR graduate program internships
5th	Independent study/projects supervised by a faculty member or HR professional
6th	HR-related work/study assignments
7th	HR-related volunteer role

Figure 8. Ranking competencies from SHRM survey. Adapted from "SHRM Human Resource Curriculum Guidebook" Lockwood et al., 2017, SHRM. Retrieved January 23, 2021, from Copyright 2018 by SHRM.

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Figure 9. Selected content areas for educational needs from SHRM survey. Adapted from “SHRM Human Resource Curriculum Guidebook” Lockwood et al., 2017, SHRM. Retrieved January 23, 2021, from https://www.shrm.org/certification/for-organizations/academic-alignment/Documents/2019%20Curriculum%20Guidebook%20Update_FNL.pdf

Copyright 2018 by SHRM.

An important shift has occurred in recent years. Many of the practitioners who participated in the original studies believed that students were not adequately taught today’s business realities and real-world problem-solving skills. In response, SHRM has sought to solve the lack of business acumen and savvy among graduates of HR degree programs. The current research studies, however, show that the gap between what is being taught and what HR practitioners are looking for from recent graduates entering the HR field has narrowed significantly, especially regarding the study of HR within the context and framework of business. (Lockwood et al., 2017)

In November of 2020, SHRM posted plans for reviewing and revising the guidebook with a scheduled publish date in 2022.

Implications and Contributions to Knowledge

Discussion

As with many previous research papers, this paper reviewed data suggesting that there is still a knowledge gap between HRP's and academics and trained psychologists. The knowledge gap is present in the broad sense of EBM and HRP's practice and the specifics of psychometric testing. This article also links evidence that psychometric testing in the workplace is complicated and contains both legal and medical issues to avoid. Thus, it should not be assumed that HRP's have obtained enough practical knowledge to navigate their roles with the tool successfully.

Several reasons proposed for the knowledge gap of HRP's are lack of exposure to academic research (Rynes et al., 2007), low status of HRP's within an organization, inability to implement EBM's, and office politics (Gill, 2017). Additionally, there have been suggestions that this knowledge gap is not likely to be reduced due to its size and a lack of incentive for all parties to change their practices (Gill, 2017) (Rynes et al., 2007). Even though these items have been shown to contribute to the problem, this additional research increasingly suggests that there could be alternative reasons for the knowledge gap.

First, contrary to expectations, this research suggests that HRP's are interested in learning more about psychometric testing. As evident in the HR industry publications, HRP's are aware of their lack of competency regarding personality assessments, and there is a desire to know more (Chanler, Dye, Coppinger, Nieh, & Maris, 2019) (Moss, 2015) (Crush, 2015). There is also an indication that a percentage of HRP's seek out knowledge by continuing their educational obtainment and shift their focus from business acumen to psychology at the doctoral level (the Census Bureau, 2018).

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Second, this research study uncovered differences in proficiency expectations that lead to different educational standards between academics, a trained psychologist, and the HRP. Evidence is present in the guidelines for respective industries where psychologists and academia have detailed outlines for developing psychometric testing knowledge compared to HRP guidelines that only mention talent selection assessments.

At the same time, this research also questions the general educational path advertised for HRP as "best practice." The recommendations are currently for HRP's to earn a BS in Business Administration, focusing on Human Resources with leadership obtaining an MBA in Strategic Human Resource Management (SHRM) (HumanResourceEDU). "HR leaders are responsible for transforming words into actions -- for inspiring the desired employee behaviors and beliefs (O'Boyle, 2017)." However, the I-O Psychology degree teaches methods to improve the overall work environment, including performance, communication, professional satisfaction, and safety with psychology and research, not necessarily skills learned with an MBA (APA). The finding of less than 2% of HRP's with an I-O Psychology degree suggests the type of educational obtainment plays a role in the current knowledge gap in both the broad sense and specific to psychometric testing.

It should also be noteworthy to discuss research standards for SHRM. It appears that most feedback is solicited from current SHRM members. Due to the survey participant pool, there could be artificial support for the current educational path as the participant are paying membership dues and already invested in the established pathway. Asking a group of people if they believe the established norms are still true when there is nothing that allows them to consider alternatives might yield expected results and not necessarily uncover actual needs.

This research study discussion does not intend to suggest that HRP's who have obtained professional certifications or business degrees have the wrong education or knowledge for the roles they hold. However, the research suggests that there is both a need

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and a desire for more psychology training to better prepare HRP's for their roles. Especially if the trend to use psychometric tools in the workplace continues as expected.

Limitations of Research Review

Up to this point, a great deal of time was spent researching the current state of knowledge between HRP's and academics on psychometric testing in the workplace. However, limitations are present in this research of this multi-facet topic. First, consideration should be given to training psychologists and HRP's receive from psychometric testing vendors. Due to the large volume of vendors, a comprehensive review of training would be beyond this research paper's scope. However, it is recommended to further the knowledge gap conversation.

Another review consideration would be expectations of CEOs and company leadership of psychometric testing and HRP's role. It is rare that HRP's exclusively decide to use tests or assessments during the hiring process. HRP's facilitate and coordinate conversations and decision-making based on business needs and directives. Researching the possibility that there is a gap at the leadership level contributing to the knowledge gap between HRP's and EBM would be interesting to find out for this conversation.

Additionally, there seems to still be a lack of HRP's involvement in researching the knowledge gap. All formal research reviewed was conducted by those in the academic world. While HRP's were interviewed or surveyed, they did not necessarily participate in the research development. It would be constructive to research why HRP's still lacks a presence in the research itself when there is a desire to know more. Perhaps, the issue is inclusion? Were HRP's invited and declined or just not invited to participate?

Also, the research reviewed for this paper appeared to have a narrow focus, with only two articles mentioning the vast responsibilities an HRP must manage. Likewise,

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organizational structure and available resources for the HRP did not appear to be considered when research results were formulated. It could be advantageous to continue the knowledge gap discussion with a review of the HRP's scope of responsibilities and structure for efficiencies and time to participate in research studies and implement EBM.

Lastly, the previous knowledge gap research review seemed to reveal arrogant discussion tones that were assuming and pessimistic. In looking at the knowledge gap as a whole, it could be considered that the messaging of results contributes to the problem. In this respect, it is not exclusive to the technical language but the non-complementary language. Suppose one considers that it is difficult to hear what one is doing "wrong." In that case, it might be insightful to review if there are pessimistic and cynical tones to research discussions that lead to HRP's equally cynical views and then non-adoption rates of EBM.

Practical Implications

The section below contains practical implications for academics, SHRM, and HRP's. The implications come from a unique perspective as an HRP conducting this research. While this research initially looked at the knowledge gap of HRP regarding psychometric testing, it also scoped out to reviewed the knowledge gap between HRP's and academics. With this in mind, the recommendations below provide guidance on the broad knowledge gap, followed by proposing a specific research study regarding the I-O psychology knowledge gap.

Practical Implications for Academics

The implications for academics concerning HRP's are the same as previous suggestions, be relevant. In reviewing the various research articles for this study, much of the overall topics were not relevant to help the HRP with current occupational challenges. While the research might be insightful, it does not seem to solve a problem in current realities. Even Rynes, with the following quote, uncovered a research practitioner gap. "This would seem to be a particularly important finding; in that, it suggests that modern HR managers need to

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know far more than the "traditional" HR knowledge covered in HR textbooks and certification exams. Rather, they also need both cognitive and practical knowledge regarding how to get things done in complex social systems (Rynes et al.,2002)."

Unfortunately, while this quote is almost 20 years old, it appears to be as accurate today as it was then. However, this knowledge gap is not insurmountable. There are practical steps that those in academic research can take to fill in the gap.

The first suggestion is to invite HRP's to participate in research. Given that academic researchers have enlisted the help of SHRM to connect to HRP's to research, they could also use the pathway to extend invitations. Those interested and have time to assist will most likely step up to help move the HR knowledge forward. Research findings can also be packaged into presentations to share with fellow HRP's during SHRM annual conference, thus increasing exposure and insight.

The second suggestion is for researchers to shadow HRP's to gain insight into the role and its responsibilities. On a given day, an HRP might bounce from a legal issue to a benefits issue to a professional development issue and then to a compensation issue. There is no clear roadmap for a person to navigate such vastly different and, in some cases, highly regulated subject matters. Gaining perspective to the role and using that to facilitate relevant research work would help gain the attention of the HRP.

The third and perhaps the most essential item is mindfulness of the communication in research conclusions. Now, this was not an objective when this research was started. However, the tone displayed in research discussions developed a surprisingly negative trend. HRP's are in the business of taking care of the people around them. The work is done proactively by ensuring accurate payroll processing and being responsive when employee relations issues arise. However, there could be a study conducted to seek out approval ratings

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or appreciation levels of HRP's. One suggested hypothesis would be pessimistic as many employees do not turn around and give thanks for the role of an HRP. Not all work completed has happy endings. News articles, such as one posted on fastcompany.com, suggests that the best HR is invisible. With all this being said, it is not surprising that HRP's are not interested in reading research that labels them negatively, such as Rynes and Gill. Therefore, the recommendation is for the researcher to pause and understand what they need to communicate and how it can be communicated so that HRP's want to embrace their findings instead of ignoring them.

Practical Implications for HRP's

One revelation that was surprising to see was the level to which HRP's struggle with analyzing soft skills in the talent selection process and, therefore, looking to psychometric testing for assistance (Krell, 2015) (Moss, 2015) (Crush, 2015). However, many HRP's have little experience and training with psychometric testing but believe training is necessary to administer and interpret results (Moss, 2015) (Crush, 2015).

Considering the complexity of the HRP's position, the impact that psychometric testing has on potential employees, and the cost of a bad hire, it seems astonishing that HRP's are not more knowledgeable about the subject matter. For these reasons, the suggestion is for HRP's to own a level of responsibility for their continuing education. Resources are available to further develop competencies on this matter, and HRP's need to participate. However, if there is confusion about where to begin, the recommendation is to connect with the Society for Industrial and Organizational Psychology (SIOP). Specifically, the SIOP site provides an event and education page that list a schedule of virtual workshops. These workshops will expose HRP's to insights on workplace psychology and can help them begin a path forward on their learning journey.

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Another consideration is for HRP's to review the skillset on their team and diversify their hiring practices to include HRP's with I-O Psychology degrees. This recommendation might not be feasible for all teams and companies but could be added to those with openings. Job descriptions can be reviewed and updated to include openness to other educational requirements and subtly encourage students and future HRP's that see the job postings to investigate I-O psychology degrees as a possible pathway into the HR industry.

Practical Implications for SHRM

For several decades, there has been a push for HRP's to become a "strategic partner" with their organization. Being that HRP's background was administrative, this initiative requires business acumen, change management, organizational development, culture management, data analysis, employee engagement, and marketing. This concept appears in various HR industry magazines and more extensive publications such as HBR, Forbes, Inc., and CEO Today, along with SHRM research studies. This push naturally leads perspective HR leaders into education programs that are business orientated. However, at the core of the HRP's role is people. Whether hiring, firing, coaching, and developing, the role is surrounded by and supporting people.

Nevertheless, as defined by APA as the scientific study of the mind and behavior, psychology has little presence in an HRP's educational background. (McLeod, 2019). Thus, when an HRP uses a tool such as the psychometric assessments, HRP's are not sufficiently trained, and the research-practice gap remains.

Formal education expectations from SHRM are confusing at best. When there is a lean towards a specific direction, the focus is towards technical HR/business acumen and less on the education spectrum's psychology side. This push appears to be driven by feedback obtained from the CEO's perspective. The conclusion of this research study has two recommendations. First, SHRM should survey its members to find if HRP's feel prepared for

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their current role. The survey could be developed to understand the current state of industry responsibilities compared to the expected responsibilities and gathering levels of confidence to manage those responsibilities. Since SHRM can help guide the industry, the data could bridge educational gaps that are more likely to support the HRP's current challenges.

A second recommendation is to review recertification requirements and include mandatory learning topics such as I-O Psychology and research studies as course work to maintain credentials. Being that the benchmark for competency in the HR industry is an SHRM certification, the addition of psychology and the psychometric testing subject would aid the HRP with their knowledge on the subject. This addition would also help highlight the collaboration between SIOP and SHRM within SHRM's membership base and increase HRP's exposure to the benefits of awareness and partnership with academia and continued learning.

Recommendation for Primary Research

Within the last decade, a high velocity of change has accrued within the world of work and human resources. HRP's are experiencing pressure to adapt and anticipate changes to keep their competitive advantage. Attracting and retaining top talent is now top of mind for many roles within a company (Percy, 2018). As mentioned within this thesis is the adoption of psychometric testing or personality assessments to help aid the discovery of needed soft skills that influence hiring decisions and form high functioning work teams.

One primary concern is that trained HRP's with and without business degrees are tasked to manage situations and tools, such as tests or assessments, but lacks sufficient training. At the moment, many HRP's enter into their HR role in one of three ways;

1. Happenstance, without formal education.
2. Happenstance, with a formal degree that is not related to business or psychology.

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3. Happenstance, with a traditional business degree that may or may not have a concentration in human resources (SHRM, 2017) (the Census Bureau, 2018) (Moss, 2015) (Crush, 2015) (Lockwood et al., 2017).

However, there is a clear opportunity to bridge the knowledge gap by encouraging the obtainment of an I-O Psychology degree programs accredited by APA. These degree programs meet specific standards that ensure competency with all aspects of psychometric testing within the industry and occupational environments. (APA) (SIOP) Additional, the degree would help HRP's know about employee behaviors to manage employee relation issues proactively. Nevertheless, less than 2% of HRP's have obtained this education, and there does not appear to be efforts on behalf of SHRM to promote the degree as a valid pathway to an HR position (the Census Bureau, 2018). This is relevant as companies realize that their skilled and innovative workforce is the potential competitive advantage. This resource is also a limited resource with unemployment rates, pre-COVID, averaging around 3% (Patton, 2020). Therefore the overarching question for this proposal of primary research is:

Why are there not more HRP's obtaining an I-O Psychology degree?

Hypothesis

In 2017 Capella University awarded 9,072 degrees across all graduating students (the Census Bureau, 2018). Capella University is also named the educational institution granting the most I-O Psychology degrees that year, with 196 students obtaining the degree (the Census Bureau, 2018). With 132 degrees awarded that same year, the second-highest graduating class was at Teachers College at Columbia University (the Census Bureau, 2018). The most common occupation for those with an I-O Psychology degree is elementary &

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middle school teachers, social workers, other managers (not fully defined), and postsecondary teachers (the Census Bureau, 2018).

A suggested hypothesis are:

- Exposure to degree types influences student enrolment in and degree achievement.
- SHRM endorsements of higher education degrees influence what degree types are obtained by HRP's.
- Internal organizational leadership's perception of the HRP role within an organization influences the profession's visibility to future HRP's.
- Internal organizational leadership's perception of the HRP role within an organization influences external stakeholders' perceptions of the HRP's role.
- Obtaining a higher education degree in business leads to a successful career path for HRP's.
- Obtaining a higher education degree in I-O psychology leads to a successful career path for HRP's.

Direction of Analysis

The scope of the hypothesis suggests that the research is basic in nature. The study will look at corporate leadership, HRP's, and professional associations' beliefs about knowledge and education obtainment. If the hypothesis statement is changed to identify a type of problem to HRP's education obtainment, the research's nature will change to applied research. Because data reviewed to understand trends to confirm the hypothesis, the analysis's direction would be inductive. In this case, the dependent variable would be exposure to various educational pathways, and the independent variable is HRP's achievement of higher education degrees.

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Identification of Variables

While many variables could impact a person's desire to continue their education, things like resources of money, time, and support, this hypothesis would focus on exposure to educational options, mainly I-O psychology, to succeed in an HRP role. It is merely the thought that the degree option's lack of awareness prevents HRP's from seeking and obtaining the degree.

Research Outline

This section of the paper will provide an overview of data points and the methods used to capture the data. To ensure a clear understanding of research terms, this section of the paper will begin with conceptualization supported by research and then move to data collection's operationalization. It will end by outlining the validity and reliability of the data collection.

Conceptualization

The objective is to understand how and why HRP's have determined what education they want to obtain. For this study, the focus will be on professional certifications and higher education degrees. According to Britannica,

Higher education means any of various types of education given in postsecondary institutions of learning and usually affording, at the end of a course of study, a named degree, diploma, or certificate of higher studies. Higher-educational institutions include not only universities and colleges but also various professional schools that provide preparation in such fields as law, theology, medicine, business, music, and art. Higher education also includes teacher-training schools, junior colleges, and institutes of technology. (The Editors of Encyclopaedia Britannica, 2016)

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Operationalization

The primary methodology of this study will be conducted as grounded theory. This approach is used to discover and develop an explanation of the theory. Additionally, the study would be an inductive method that builds theory with data. This method was selected to allow for new ideas as the subject matter involves people and behaviors, both of which are subject to change given new data. Two surveys will be designed, one for HRP's and one for employment leaders (CEOs). Also, an interview will be designed to collect data from professional organizations and educational institutions. Due to the way data will be collected, the study will be both quantitative and qualitative.

Participants

Invitations will be sent to 5000 randomly selected HRP's, 2500 members of SHRM, and another 2500 from the Human Resource Certification Institute (HRCI) online directory. Position titles will range from chief human resource officer to human resource generalist. The sampling strategy will be designed to capture a wide range of HR positions from the respondents. Likewise, 5000 invitations will be sent to randomly selected members of the National Association of Chief Executive of Officers (NACEO) to collect data from a leadership perspective. To be included in the survey, respondents will have to be actively working in their respective fields. The study will not include students or those that are retired from the workforce.

As for the qualitative interviews with the professional associations and educational institutions, connections with Alexander Alonso, Ph.D., Chief Knowledge Officer, with SHRM, and the Instructional and Educational Officer, Marcus Dickson with SIOP, will be made, and invitations will be sent to schedule an interview. Additionally, invitations will be

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sent to 100 educational institutions that provide business and psychology degrees. This list will be compiled from data pulled from the Census Bureau.

Survey Method

The survey for HRP's will be divided into two sections. The first part of the HRP survey will be demographics, and the second section will focus on learning and development questions. Specifically what influences decisions. Respondents will be asked to rate each item of influence for knowledge obtainment from the past, the present, and the future. As for the CEOs survey, demographic questions will remain the same as the HRP's, with different survey questions in the second section focusing on what influences a CEO's hiring and termination decisions of HRP's. The target timeline to send out electronic surveys will be June through July to avoid year-end and year beginning administrative requirements of HRP's and cultivate an opportunity for increased response rates. Interviews with associations will focus on criteria used to promote their current curriculum standards. The communication tool Zoom will be used to have virtual conference calls that can be recorded for third party review.

Survey Sample for HRP's

The data collection will be sent in the below email.

Hello,

Below is a link to a brief survey. We are surveying to understand how human resources professionals obtain relevant training for their role in the workplace. Your opinions are essential, and this survey is your chance to express those opinions. Should you have any comments or questions regarding this survey, please connect with Sarah Ely at sarah.ely@abc.com. It is expected that this survey will only take 20 minutes to complete.

Thank you in advance for your time and participation.

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A survey link using Google Forms will contain the following questions.

Demographic questions include:

1. What gender do you identify as?
2. What is your age?
3. Please specify your ethnicity.
4. What is your work location? (include city & state)
5. What size employer do you work for?
6. What industry do you work in?
7. What is your current employment status? (fulltime / parttime / seeking employment / retired / other / if other please explain)
8. What is your current title?
9. What type of role do you hold? (Strategic / Operational)
10. Years in role?
11. What business sector do you work in? (Private / Public)

Learning and development questions:

1. What education have you achieved?
 - a. Doctoral degree
 - i. What was the focus of the study?
 - b. Master's degree
 - i. What was the focus of the study?
 - c. Bachelor's degree
 - i. What was the focus of the study?
 - d. Highschool diploma / GED
 - e. Professional certifications

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- i. List certifications (PHR/SHRM-CP/CPM/ other with entry field to self-disclose)
 - f. Other: _____ (with entry field to self disclose)
2. Please list the following factors (from greatest to least influence) that impacted your decision to obtain your education?
 - a. Price
 - b. Time
 - c. Quality
 - d. Career aspirations
 - e. Suggestion from a peer or friend
 - f. Recommendation from a professional association
 - g. A requirement of your employer
 - h. A charted pathway from an article
 - i. Reputation of program
 - j. Other: _____ (with entry field to self disclose)
3. To what degree was your decision influenced by professional organizations?
4. To what degree was your decision influenced by your employer?
5. To what degree was your decision influenced by the responsibilities of your role?
6. What are the benefits you have received since obtaining your education?
7. Do you feel that your professional development/educational obtainment has prepared you for your current role?
8. What continuing education have you completed in the last year? (select all that apply)
 - a. External conferences/workshops
 - b. Online Learning

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- c. On the job training
 - d. Instructor-led training
 - e. Certification achievement
 - f. Blended learning
 - g. Job rotation/job shadowing
 - h. Learning from peers/networks
 - i. Other (with entry field to self disclose)
 - j. None of the above
 - k. Nothing
9. What are the main challenges you are currently facing in your role?
10. To what degree, if any, are these challenges influencing your decision to seek out continuing education?
11. What continuing education do you anticipate completing in the next 12 months?
12. Where do you plan to research your future education/professional development opportunities?
13. What educational path would you recommend to a new HRP?
14. If you could change one thing about your professional development/ educational experience, what would that be?

Survey Sample for CEO's

The below questions will be used to gain insight into HRP's training and preparedness for their roles from the CEO's perspective. As with the HRP survey, a Google Form survey link will be created and emailed. The following questions will be included in the survey.

1. Please list the following factors (from greatest to least influence) that impacted your decision to hire an HRP
 - a. Education

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- b. Professional Certifications
 - c. Years of Experience
 - d. Experience Type
 - e. Seniority within the organization
 - f. Experience in interviews
 - g. Level of business acumen
 - h. Referral from colleague
 - i. Other Other (with entry field to self-disclose)
2. To what degree was your decision influenced by professional certifications?
 3. To what degree was your decision influenced by formal education obtainment?
 4. To what degree was your decision influenced by past work experience?
 5. What skillset do you see HRP's have that is an asset to the company?
 6. What skillset do you see HRP's lacking in their roles?
 7. What professional development or educational opportunities have you proposed to your HRP to help with skillsets that are lacking?
 8. What reasons have led to an HRP's being terminated from your organization?

Validity & Reliability

To ensure validity, content validity methods were used when creating the survey questions to reflect the research topic of decision-making influences. A balance of considerations is given to make sure that internal validity will also be achieved. Lastly, survey questions ask about past professional development / educational obtainment in addition to current and future training to maintain external validity.

As for consistency in the interviewing process, face validity will be used when reviewing the data, but data will be given to an external researcher for transferability. Two

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people will conduct interviews over three months. Interviews will contain straightforward and open-ended questions, time for the interviewee to ask clarifying questions, confidential space to encourage honest answers. Interviews will be recorded for external reviews. Reliability will be based on internal consistency both in the interviews and in survey gathering. As illustrated in the survey sample section, similar survey questions will yield similar results for reliability. A pilot survey will be sent out to a focus group to evaluate survey questions and ensure the respondent's consistency of characterizing the questions.

Limitations

The research proposal has a few limitations to be mindful of, and work should consider reducing. First, there is the limitation of representation of the target population. Since invitations to participate in the surveys will be emailed, and the goal is to get responses from HRP's across a whole range of positions, data will need to be analyzed to ensure that the responses are inclusive.

Second, there is a lack of control in the environment in which participants will respond to interview questions and surveys. Efforts will be made to ensure that interviews will be secure and comfortable to solicit as much feedback as possible. However, those responding to surveys will be within the environment to which the respondent chooses.

Lastly, there is a labor intensity that will come with the large volume of interviews. Interviews will be scheduled out over several months to allow for rest periods to minimize interview fatigue. However, there is the consideration that the schedule can not be pushed too far out as external impacts (for example, a pandemic) could impact responses.

Conclusion

This research aimed to understand the difference in viewpoints, training, and knowledge gap between HRP's and psychologists. It started by questioning the rationale for

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the HR department being assigned psychometric testing. Based on the analysis of published studies and guidelines from academic research and respective industry associations, this thesis shows the difference of opinions and complexity of psychometric tools used in the workplace. Not only is there a difference of opinions between the three perspective groups, but there are also differences of opinions within each group. It also highlights training and educational deficits for HRP's regarding general psychology and psychometric tools. Additionally, there was a discovery of awareness on behalf of the HRP's of these deficits, along with a desire to bridge the gap with relevant and meaningful training. Simultaneously, this research also uncovers I-O psychology study as a possible bridge for the existing knowledge gap.

While discovering the knowledge gap is not a novel idea, this thesis suggests that there could be other reasons for the gap than previously thought. In looking at how people enter into the HR field and then progress within their careers, it appears that there are various and ambiguous pathways. Some suggest that education is not needed, but experience in the role is beneficial, while others support business degrees with a professional certification. Contradictory at best, it seems that many HRP's are left unprepared for their roles. Thus the research results raise the following question, could the knowledge gap be attributed to incomplete training? Perhaps HRP's failure to be seen as a strategic partner within an organization is due to the deficiency in job scope within organizational management and the industry. With the current push for HRP's to get a business degree, is there too much focus on business objectives and not enough understanding of how to handle the people side of the work environment?

It is not the research's intent or the author to suggest that HRP's should abandon their business degrees. However, there is curiosity about if there was more research conducted, would it suggest that HRP's who also get an I-O psychology degree could begin to close the

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knowledge gap and be more successful in an HRP role? This consideration is critical as it keeps the conversation regarding the knowledge gap open and moving forward.

Future Research Suggestions

Upon reviewing the secondary research within this thesis, there was a proposal for primary research to understand what influences HRP's when deciding on their professional development and educational obtainment. However, there are other future research suggestions. Consideration to answer other questions to include:

- Why is the I-O psychology degree obtainment an underutilized path for HR?
- Would HRP's benefit from more exposure to psychology education?
- What is the HR industry's reputation today, and does it impact how future practitioners enter into the role?

It is understood that people are a company's biggest and most important asset. However, we still do not fully understand why HRP's continue to fail to be seen as critical support. One possible thought from this thesis is that education expectations could be a clue and should be investigated.

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