Distinctive 16 PF Personality Traits of Librarians

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Abstract: While there is a fairly extensive literature on core competencies of librarians, there is a paucity of research on personality traits that distinguish them from those in other occupations. The present study compared the personality traits of 88 librarians with a general norm group using the 16 PF, a widely researched normal-personality inventory. We found that librarians are more apprehensive, cautious, flexible, focused, imaginative, open-minded, respectful, self-reliant, serious, tender-minded, and trusting as well as higher on general reasoning skills than those in the norm group. Findings are discussed in terms of consistency with core competences of librarians. Practical implications were noted, including recruitment and coaching of job incumbents.

Keywords: Librarian competencies, 16 PF, personality traits, person-occupation fit, 21st Century skills

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Different jobs require distinctive strengths, and many essential occupational competencies are closely related to personality traits (e.g. Tett, Guterman, Bleier, & Murphy, 2000). As an example outside of librarianship, a desirable strength for firefighters is the ability to deal with pressure, and this is a quality associated with the personality trait of Emotional Stability. Similarly, many competencies that librarians are required to possess are related to personality traits. For example, the competencies listed as essential for librarians in the Faculty Assembly Bylaws of the University of Arizona Libraries include many "soft skills" which pertain to personality characteristics (Huff-Eibl, Voyles, & Brewer, 2011). As the authors note, "Another core theme across articles on competencies in librarianship is a focus not only on technical skills or competence in functional areas (e.g., collection management, instruction), but also in finding better ways to describe and evaluate competency areas such as interpersonal communication, conflict management, and collaboration. These competencies are generally thought of as 'soft skills'" (p. 677). Soft skills can be assessed via personality traits (Hough & Ones, 2001; Sackett & Walmsley, 2014).

We believe that studying librarians' personality traits can give insight into whether librarians possess important core competencies for their jobs that should persist across work situations, specific job positions, and over the course of a career. One may infer probable competency-related strengths and weaknesses from an individual's personality profile. For example, Hough and Ones (2001) have developed a taxonomy relating competencies to personality traits. The present study identifies a prototypical personality profile of librarians, based on their average scores on personality factors from

a comprehensive personality instrument, the 16 PF (Conn & Rieke, 1994). The purpose of the present study was twofold: to identify distinctive personality traits of librarians compared to general norms, and to assess how these traits align with occupationally important competencies described in the theoretical and empirical literature on librarians.

While many diverse personal attributes of librarians have been recognized as important for 21st century librarians and information professionals, there is a dearth of research on personality traits which typify them as an occupational group and distinguish them from other occupations. Before turning to the research goals of our study, we first review previous research on personal attributes of librarians, including soft skills and competencies.

Personal Skills of Librarians

A number of personal attributes have been shown to be important for successful job performance, including personality traits, soft skills, emotional intelligence, and 21st-century skills (Sackett & Walmsley, 2014). Many of these have been found to be important for librarians and information professionals (LIS).

Figure 1 presents the personal qualities listed as important for LIS professionals in five recent research publications (Goulding, Bromham, Hannabuss & Cramer, 1999; Howard, 2009; Nonthacumjane, 2011; Ome, 2008; Raju, 2014).

[place Figure 1 here]

As can be seen in Table 1, many soft skills—such as ability to accept pressure, flexibility, ability to deal with a range of users, innovativeness, and analytical skills—are listed as important in multiple sources.

Personality Traits of LIS Students and Librarians

Personality traits are recognized as significantly related to a number of work-related behaviors across a wide range of jobs and organizational settings. As summarized by Hough and Ones (2001):

> The importance of personality variables for work is obvious. They influence career and occupational choice, organizational choice, as well as reaction to testing programs employers use to select employees. Once hired, personality variables influence most of what happens at work including: (a) learning and training processes and outcomes; (b) health and safety on the job; (c) satisfaction with one's job, coworkers, and supervisors; and (d) which people emerge as leaders as well as which ones are effective leaders (p. 255).

Several meta-analyses (e.g., Sackett & Walmsley, 2014) have found that key personality traits such as Conscientiousness, Agreeableness, Emotional Stability, and Extraversion have modest to high correlations with overall job performance as well as key facets of job performance, such as task performance, organizational citizenship behavior, and counterproductive work behavior.

Despite the importance of personality, there have been few studies of the personality traits of librarians. Goulding, Bromham, Hannabuss & Cramer (2000) compared UK ILS students' personality profiles with desired personal qualities after administering the students the 16 PF Questionnaire. Before that, Goodwin administered an earlier version of the 16 PF to first-year students in professional schools at University of British Columbia, including 83 students in librarianship (1972). Subsequently, Lee and Hall (1973) gave the 16 PF to female library science students. While there are a few

studies of the personality traits of LIS professionals, we could find no English-language studies using the 16 PF Questionnaire to measure their personality traits. It is important for the study of personality in this area to avoid both a sampling bias by studying only students and a mono-method bias (Donaldson & Grant-Vallone, 2002) in relying solely or primarily on one personality measurement system, such as the Big Five or Big Five and narrow traits (e.g., Lounsbury, Loveland, Sundstrom, Gibson, Drost & Hamrick, 2003). The present study addresses this knowledge gap by reporting on the 16 PF results of practicing librarians in the United States. The 16 PF is a comprehensive personality instrument that measures 16 personality factors, some of which are distinct from and measure at a finer level of granularity than the Big Five personality traits of emotional stability, extraversion, agreeableness, openness to experience, and conscientiousness (Conn & Rieke, 1994). As well as measuring these fine-grained traits, the 16 PF also has five global factors similar to the Big Five factors, but we chose to use the narrower 16 factors in this study. Examining more fine-grained traits than the Big Five allows one to describe more specifically the personality traits that are likely to be related to soft skills. Because soft skills themselves are often specific, such as flexibility, they are best related to narrower personality traits or to combinations or facets of Big Five traits (Hough & Ones, 2001).

Research Question and Hypotheses

Our primary research goal was to identify personality traits aligned with the personal qualities or soft skills that represent important competences according to the library literature. To accomplish this, we drew on two theoretical models that have been applied to other occupations (see e.g., Lounsbury, Foster, Patel, Carmody, Gibson, and

Stairs, 2012; Williamson, Lounsbury, & Han, 2013). Holland's (1985) vocational theory contends that individuals gravitate toward, are satisfied with, and remain in occupations where there is a good fit between their personality and the work environment. Also, Schneider and colleagues' Attraction-Selection-Attrition (ASA) model holds that individuals are attracted to occupations which align with their personalities, that organizations select individuals whose personalities seem to be a good fit with the work, and a lack of fit on the job results in attrition (turnover) (Schneider, Goldstein & Smith, 1995; Schneider, Smith, Taylor & Fleenor, 1998). An important implication of both of these theories that alignment or fit between an individual's personality characteristics and job characteristics is adaptive, leading the individual to stay in the job, be satisfied with it, and remain in the job. In the current study, we compare librarians' personality traits with those of a general norm group, which allowed us to identify distinctive personality traits of librarians. Presented below are the study research questions and hypotheses. See Figure 2 for definitions of the 16 PF factors.

Hypothesis 1: Regarding the 16 PF trait Reasoning (B), we expected librarians' Reasoning scores to score higher than those of a general normative group. The occupational role of librarian is saturated with demands for general reasoning and higher-order cognitive processing. For example, among the core competences of librarianship listed by the American Library Association (ALA, 2009), are the following.

- Acquisition and disposition of (information) resources, including evaluation, selection, purchasing, processing, storing, and de-selection.
- Cataloging, metadata, indexing, and classification standards and methods used to organize recorded knowledge and information.

- The fundamentals of quantitative and qualitative research methods.
- Learning theories, instructional methods, and achievement measures; and their application in libraries and other information agencies.
- Methods of assessing and evaluating the specifications, efficacy, and cost efficiency of technology-based products and services.

Additionally, the cognitive complexity and general reasoning requirements of the librarian role can be seen in the U.S. Department of Labor's Occupational Network (O*NET, 2015) summary report for librarians and the many types of software technology they should know.

Then, too, a relatively high level of reasoning ability for librarians can be inferred from the fact that most librarian jobs require a graduate degree—usually a master's, though more and more now require a Ph.D or J.D. Many librarian jobs require more than 5 years experience, which also reflects higher-order reasoning processes.

Hypothesis 2: Regarding the 16 PF trait E Dominance, we expected librarians' scores on the 16 PF Factor E—Dominance—to be lower than those of a general normative sample. Low dominance is associated with deference, tact, amenability, and willingness to be accommodating. These are important traits for the components of a librarian role that call for a service orientation—to library patrons and other library personnel—and coordination, which involves adjusting one's actions in relation to others' actions (see, for example, the ALA core competences involving user services and providing information and service to "individuals of all ages and groups" (ALA, 2009, p. 3) as well as other library units). A lower level of dominance expressed in terms of maintaining a respectful, tactful interpersonal style is also important for the core competence of

community relations, notably developing "support for the library among a variety of groups" (Webjunction, 2014, p. 24) and communicating "the value of library services, products and policies to library management, library staff, key stakeholders, user groups and the community" (Webjunction, 2014, p. 24).

Hypothesis 3: Regarding the 16 PF trait F Liveliness, we also expected librarians to score lower. There are several components of low liveliness, including seriousness, introspectiveness, and reflectiveness. These traits have adaptive value for librarians when they have to fulfill job responsibilities and requirements in the two following areas:

- Self Control —maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations (O*NET, 2015).
- Concentration and focus on technical matters, such as computer systems, metadata, cataloging, indexing, storage devices, retrieval, scheduling, classification, and a wide range of Internet issues and applications (O*NET, 2015).

More generally, introspectiveness and concentration are required to some degree for most, if not all, of the non-interpersonal job tasks and duties of a librarian that s/he performs alone, usually in quiet surroundings.

Hypothesis 4: Regarding the 16 PF trait H Social Boldness, we anticipated that librarians would score lower than a general normative sample. There are several areas of alignment between this trait and key librarian competencies and responsibilities. First, cautiousness and heedfulness—which are components of low social boldness—are beneficial to librarians when they must address difficult situations with library users

(Webjunction, 2014). Second, cautiousness and deliberateness—which are also characteristics of individuals with low social boldness—are useful when librarians must use good judgment when following, as well as knowing when to deviate from, official library policies and procedures. These traits are also helpful when librarians must "deal with users' concerns efficiently and effectively" (Webjunction, 2014, p.9) and when they have to respond to patrons' complaints and problems in a professional manner. In addition to the above traits, low scores on social boldness are also associated with carefulness and avoidance of errors—which help librarians fulfill the safety and security requirements of their jobs as well as implement and manage official library policies and procedures. Finally, low social boldness is associated with being respectful and considerate of others, which can help librarians maintain good working relationships with the library stakeholders at all levels, including patrons, team members, staff, administration, and advisory boards.

Hypothesis 5: Regarding the 16 PF trait L Vigilance, we expected librarians to score lower than the general norm group, which means that librarians would score higher on trust at the low end of the 16 PF dimension L (versus vigilance on the high end). Trust is a foundational attribute for creating and maintaining positive working relationships with other people. In the context of the librarian role, higher levels of trust are important for all of the competences related to interpersonal demands. For example, trust is important for the general competence Establishing and Maintaining Interpersonal Relationships (O*NET, 2015). Trust is also indispensable for the general collaboration competence, which the Competency Index for the Library Field depicts as subsuming both working effectively in teams and "developing constructive and cooperative working relationships

with others, and maintaining them over time" (Webjunction, 2014, p. 7). Trust also is instrumental for the ALA competence of "developing partnerships, collaborations, networks, and other structures with all stakeholders and within communities served" (American Library Association, 2009, p. 5).

Hypothesis 6: Regarding the 16 PF trait Privateness (N), we expected librarians to score higher than a general normative sample. This trait aligns directly with a core competence of librarians—must understand privacy issues and protect user confidentiality (Webjunction, 2014). Privateness comes into play in all those situations where librarians must protect the confidentiality of library patrons when carrying out such tasks as responding to requests for information, maintaining a user database, and providing books, references, and the results of searches. In addition, privateness is associated with being diplomatic, professional, and displaying appropriate conduct on the job, including being polite and displaying good manners in the workplace.

Hypothesis 7: Regarding the 16 PF trait Q1, Openness to Change, we also expected librarians to score higher than a general normative group. Given the continual advancement of new technology—as well as improved procedures for documentation, retrieval, acquisitions, and database management—librarians must be open to change, innovation, and new experience. For example, one of the ALA Core Competences for Librarianship is: "The principles and techniques necessary to identify and analyze emerging technologies and innovations in order to recognize and implement relevant technological improvements" (American Library Association, 2009, p. 3).

The importance of openness to change can also be seen in The Competency Index for the Library Field (Webjunction, 2014), which was compiled from input provided by a

broad spectrum of library practitioners and leaders. More specifically, the competency index lists as a basic competence "Embraces change and fosters understanding and acceptance by all stakeholders" (Webjunction, 2014, p. 31) which includes the following:

- Recognizes the benefits of change and understands the principles, processes, and responsibilities for managing organizational change.
- Prepares staff, library board, users and other stakeholders for change through persuasive and effective communication to raise awareness, build commitment and ensure understanding.
- Anticipates change-resistant behavior (fear, conflict, negativity, complacency) and applies strategies to address it.

In addition, Openness to Change is directly related to continuing professional development—another competence in the ALA Core Competences (American Library Association, 2009)—and constant updating of knowledge (O*NET, 2015).

Hypothesis 8: Regarding the 16 PF trait Q3 Perfectionism, we expected librarians to score higher than a general normative sample. Individuals with a high Q3 score are perfectionistic, precise, organized, and detailed—all of which align with the occupational requirement of attention to detail, an essential work style attribute for librarians (O*NET, 2015). In addition, need for organization and attention to detail are consistent with the following ALA Core Competence: Organization of Recorded Knowledge and Information—which includes the organization and representation of recorded knowledge and information; developmental, descriptive, and evaluative skills needed to organize recorded knowledge and information resources; and systems of cataloging, metadata,

indexing, and classification standards and methods used to organize recorded knowledge and information (American Library Association, 2009). The personality traits related to high Q3 also align with the competence which O*NET (2015) labels Information Ordering — "The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules" (par. 5). From a broader perspective, organizing knowledge, a key component of librarianship, entails precise, detailed classification systems and accurate description of item, which are facilitated by librarians with high Q3 scores.

Research Question 1: On which of the other eight 16 PF traits not listed in the eight hypotheses presented above do librarians differ from the 16 PF comparison norm group?

Method

To answer the research question about librarians' personality traits compared to the 16 PF comparison group, we administered the online 16 PF Fifth Edition Questionnaire (Conn & Rieke, 1994) to 88 librarians. Demographic information was available for 87 of the 88 participants. Following convention, the 16 PF scores were converted to sten scores ranging from 1 to 10 with a mean of 5.5 and a standard deviation of 2.

Participants

The participants were recruited from the LIBREF (n=27), DIGLIB (n=28), and TLA (n=29) listservs. LIBREF-L is a discussion list for reference issues, especially the changing environment of reference services and activities. The DIGLIB mailing list is for librarians, information scientists, and other information professionals to share information about the many issues and technologies pertaining to the creation of "digital

libraries." TLA-L is a discussion conference for TLA members and other Tennessee librarians. Three participants chose not to identify the listserv from which they had received the invitation to participate. All participants were librarians or had been librarians in the past, and they all had a professional library or information science degree. Seventy-six participants were female, and 11 were male. Table 1 reports additional demographic data.

[place Table 1 here]

Instrument

The 16 PF (5th edition) measures 16 personality factors (as well as five global scales, not reported in this study). The 16 PF has a long history; validity and reliability data are summarized in the technical manual (Conn & Rieke, 1994). Figure 2 shows the meanings of the 16 factors, with low score descriptors on the left and high score descriptors on the right (Cattell & Schuerger, 2003; Conn & Rieke, 1994).

[place Figure 2 here]

Results

Figure 3 presents the means, standard deviations, and results of independent samples *t* tests comparing librarians and the general normative sample on the 16 PF personality traits. As can be seen from Figure 3, compared to the general normative group, librarians had significantly higher scores on B (Reasoning), I (Sensitivity), M (Abstractedness), O (Apprehensiveness) Q1 (Openness to Change), Q2 (Self-Reliance); they also had significantly lower scores on A (Warmth), C (Emotional Stability), E (Dominance), F (Liveliness), G (Rule-Consciousness) , H (Boldness), L (Vigilance), and

Q3 (Perfectionism).

[place Figure 3 here]

Discussion

Taken as a whole, and consistent with all but one of the hypotheses as well as some of the non-hypothesized differences, the present findings demonstrate a distinctive personality profile for librarians. These results are consonant with established librarian competencies and conceptual models of key attributes of librarians. As will be discussed below, the present findings align with theories of vocational fit and carry important implications for career planning as well as selection and mentoring of library professionals. Before turning to the implications of these findings, we discuss the results for each hypothesis separately.

As expected, librarians scored higher than the general normative population on Reasoning (B). High scores on reasoning have functional value for librarians in meeting the many diverse intellectual demands of their jobs. As mentioned earlier, several of the key competences for librarians involve executing tasks of high cognitive complexity and applying sophisticated technical knowledge acquired through many years of education (American Library Association, 2009; O*NET, 2015). As the role of librarians becomes more differentiated and expands to accommodate new and changing technology, and librarians continue to make the transition to digital content and deal with the "globalization of everything" (Matthews, 2015, par. 1), the mental demands placed on them will undoubtedly increase. Librarians with higher levels of reasoning will be well poised to meet such demands.

The results for Dominance were confirmed in that librarians scored lower than the general normative population. This means that they have higher levels of deference, tact, and respect—all of which are integral to customer service orientation. In their depiction of essential librarian competencies, the Competency Index for the Library Field avers that "The delivery of excellent customer service is a fundamental factor in effectiveness and needs to be prioritized throughout the organization" since librarians' "interactions users require trust, respect, and focus on the needs of the individual" (Webjunction, 2014, p. 8). A lower level of dominance, however, is a major impediment to leadership, which is also listed as a librarian competence by the ALA and in the Competency Index (American Library Association, 2009). As noted in the Competency Index, it is not necessary to have the term "director" or "manager" in one's job title to exercise leadership. There are varied opportunities to lead, such as project management, developing learning centers, implementing library service innovations, enhancing stakeholder engagement, mentoring junior colleagues and developing mentoring networks, changing organizational culture, and building effective relationships linking internal and external library stakeholders.

As predicted, librarians scored low on Liveliness. This result likely reflects the self-control and concentration needed for many librarians' job tasks. Also, a low score on liveliness is an important component of Introversion (Cattell, Eber, & Tatsuoka, 1970), which, in turn, is useful for the technical, impersonal functions of a librarian's role such as cataloging, indexing, classification, retrieval, selection, purchasing, and organizing recorded knowledge and information (American Library Association, 2009). A serious, focused, non-impulsive style is also useful when librarians interact with users and other

employees. Such attributes contribute to the professionalism that is expected of librarians; as Pagowsky and Rigby (2014) observed, "Librarians are in the business of presentation. Whether we are presenting information or presenting ourselves to the public, it is a constant of the profession. And all of our constituents—especially our served communities—judge our presentation, consciously and subconsciously, as to whether they can see us as reliable, authoritative, approachable sources of information" (p. 1).

Also as predicted, librarians scored lower than the general normative sample on Social Boldness (low Factor H). This result reflects the cautiousness and threat-sensitivity which help librarians to carefully manage resources in a safe, secure way, as in safeguarding privacy and confidentiality, protecting rare volumes, and keeping the library secure against those would steal or damage library books, periodicals, and other content (Webjunction, 2014). Being heedful and cautious also help librarians in following rules and policies of the library and governing bodies. Moreover, these attributes aid librarians in dealing with complaints and suggestions made by patrons.

Another hypothesis confirmed in the present study was that librarians would score lower on Factor L, which indicates trust. Being trusting and accepting of others is important for many aspects of a librarian's role, especially those involving serving library patrons and interfacing with other library stakeholders. As noted earlier, trust is of fundamental importance for those interpersonal competences which ALA (American Library Association, 2009) lists under "user services" and for what O*NET (2015) lists as "establishing and maintaining interpersonal relationships. Trust is also instrumental for what ALA describes as developing partnerships and maintaining constructive

relationships with all stakeholders both within the library system and the lager community served (American Library Association, 2009).

An additional hypothesis confirmed in our study was that librarians would score higher on Openness to Change (16 PF factor Q1) than a general normative sample. This is aligned with competences for librarians calling for adopting and managing new technology, such as mastering computer software and hardware, handling change at all levels, and engaging in continuous learning (e.g., Goulding et al., 1999). As one example, the ALA lists the core competence of being able to "identify and analyze emerging technologies and innovations in order to recognize and implement relevant technological improvements" (American Library Association, 2009, p. 3). On a more general level, the Competency Index for the Library Field (Webjunction, 2014) states that librarians must be able to deal with "dramatic changes in community needs and the tools available to serve those needs" (p. 1). Also, under the broad competence "Anticipates and adapts to change and challenges effectively" (p. 11), they list seven sub-competences, all of which contain the word "change" or adapting to new technologies and varied responsibilities. The importance of openness to change and new learning will surely going to increase in the future as libraries engage more fully with the digital revolution in information, which has been likened to a "tsunami of information" and "drinking from a fire hose" (Gore, as reported in Schutte, 2013). Librarians will need to master such topics as digital reading services, using online social networking sites like Facebook to promote library services, cloud-based collections, mobile-access websites, and a variety of new imaging and metadata procedures.

One hypothesis which was not confirmed in the current study was that librarians

would score higher than a general normative sample on Perfectionism; in fact, the results indicated the opposite, that librarians scored lower than the norm group on perfectionism. Why might such a counter-intuitive result occur? The answer may be, in part, a function of the complexity of the librarian's job and overall workload. Some librarians may not have the luxury of enough time to be perfectionistic or overly compulsive about details, precision, and quality standards. A lower Q3 score can also reflect an individual's flexibility and adaptability, which can be very useful for a variety of job functions, such as changing priorities and dealing with new technology. Further research is needed to determine the degree to which flexibility and perfectionism are uniquely and jointly important for the work of librarians.

Another hypothesis which was not confirmed in this study is that librarians would score higher on Privateness. In fact, there were no significant differences between librarians and the normative sample on Privateness. It may be that even though librarianship at times requires being discreet and confidential (i.e., when dealing with confidential information), librarians must also be open and forthright about library services, holdings, and user policies. Perhaps these countervailing requirements resulted in the average Privateness score for librarians.

Although not included in the study hypotheses, several other differences on the 16 PF traits of librarians were observed, including higher Abstractedness, lower Rule-Consciousness, higher Apprehensiveness, lower Emotional Stability, higher Sensitivity, higher Self-Reliance, and lower Warmth. Each of these will be discussed briefly below.

A lower level of Warmth (Factor A) likely reflects the importance of many

librarians' needing to focus on technical tasks without engaging in social interactions or being affable and warm-hearted on the job. (This may vary by type of job, however, with public services librarians needing to engage in more social interactions.) A higher level of Abstractedness (Factor M) can help librarians engage in thoughtful reflection and metacognition about improving their work processes as well as analysis and planning in many job tasks. It can also enable librarians to deal with the complex and nuanced issues involved in a variety of job demands, such as resolving freedom of information and privacy demands as well as learning and utilizing new digital resource technology and E-resource management, enterprising computing. That librarians scored lower on Rule-Consciousness (Factor G) may have resulted from the demand for them to be flexible and adaptable, as discussed above, and which are listed as key librarian attributes by O*NET (2015). Indeed, O*NET lists adaptability/ flexibility as one of the most important work styles and it notes that most librarians' jobs offer a lot of freedom to make decisions, which is consonant with low G. We suspect that the level of structure and thus the need for adhering to structure and rules required for a librarian may vary across type of library and job specialty area along with variations in job autonomy and complexity. By way of example, Patillo, Moran, and Morgan (2009) found that public librarians reported more job discretion than academic librarians and that such discretion varied by area of responsibility, while it was not related to the size of the library.

In addition, that librarians scored higher than the general normative sample on Sensitivity (Factor I) may have resulted from their need to be empathetic in dealing with a wide range of users. Empathy can also help librarians provide better customer service, which is demanded in many, if not all, librarian jobs. High sensitivity is also associated

with aestheticism (Cattell et al., 1970) which can have functional value for those librarians who deal with literature, art, imaging, rare books, special collections, preservation of old and rare holdings, and maps. That librarians scored higher on Self-Reliance (Factor Q2), may reflect those aspects of their work roles which require autonomy and independent decision-making, both of which are listed as important librarian attributes by O*NET (2015).

That librarians scored lower on Emotional Stability (Factor C) and higher on Apprehension (Factor O) might reflect higher levels of job stress and work-role strain experienced by librarians compared to other occupations, or it might reflect selective factors associated with the Attraction-Selection-Attrition process (Schneider et al, 1995, 1998). For example, librarian jobs may appeal to individuals who are more anxious and less emotionally resilient, perhaps because they perceive libraries as offering a more quiet, tranquil working environment than other jobs. These two explanations are somewhat contradictory, and they point toward a need for future research to determine whether libraries are more stress-inducing or stress-reducing work environments for the individuals who function as librarians and in different librarian specialties.

When the results of this study are considered in combination, the following distinctive personality profile emerges for librarians—respectful, serious, focused, cautious, vigilant, open-minded, imaginative, flexible, self-reliant, tender-minded, and apprehensive. They also displayed higher levels of reasoning, which can be interpreted as reflecting greater intelligence and mental ability. It will be interesting to see if future research can replicate as well as extend this personality profile when other traits are

considered, such as broad and narrow traits vis-à-vis the Big Five model of personality traits (Costa & McCrae, 1992).

Theoretical Implications

Since adult personality is fairly stable (Costa & McCrae, 1997) and traits from late adolescence through adulthood are unlikely to change as a person enters into an occupation and moves through a career, it is likely that that these traits which have adaptive value for librarians and distinguish them from other occupations represent the outcome of some non-random, systematic process which began before the librarians started their career. It should be noted that the distinctive personality traits of librarians are also consistent with both the Holland and ASA vocational fit theories (Holland, 1985; Schneider et al., 1995; Schneider et al., 1998). These theoretical models also point toward interesting future research questions. For example, are these distinctive librarian traits both individually and in combination related to job and career satisfaction and are they related to job performance and job turnover as would be predicted by the ASA and Holland models? Another prediction based on these models is that there would be increased homogeneity of librarians over time on these traits. Thus, for example, there might be less variability on these traits among high-experience librarians compared to that of new librarians beginning their careers.

Practical Implications

There are a number of practical implications of the present study. First, individuals considering a career as a librarian can compare how their own personality traits align with those profiled here before making a decision about a college major or a career in library or information sciences. Also, library administration could use this

profile as a consideration in recruiting and hiring new employees (e.g., Evans, & Alire, 2013) Soft skills reflecting personality traits are already listed as desirable or required competencies in many library job ads. For example, Promis (2008) found that interpersonal skills, collaboration and cooperation, service orientation, and communication skills were among the competencies presented in job ads at all levels of librarianship. In addition, those who manage or supervise librarians could use the profile when coaching, mentoring, and counseling librarians, especially as demands for coaching and mentoring librarians on the job increase with increasing pressure on libraries to perform at higher levels in the current library context (cf. Zabel & Knibbe-Haanstra, 2008). For example, a librarian with low openness could be encouraged to work with peers in the adoption of new technologies and in-library innovations in an atmosphere that would be non-threatening and supportive. Conversely, a librarian who is low on openness could be asked to serve as a resource on change projects to critique and challenge new proposals and configurations. Or, for librarians low on emotional stability and high on apprehension, library managers could strive to foster positive morale and a supportive emotional climate at work.

With a few exceptions, it is unlikely that individuals can change their personality-trait levels, they can be aware of the strengths and weaknesses of their trait levels and look for work situations which best use or accommodate their personality. A possible important exception in this regard is high Apprehensiveness and low Emotional Stability, which may be mitigated in a variety of ways, including stress management programs, resilience training, coaching, personal achievement and recognition on the job, and different forms of work success (see, e.g., Ollendorff, 1990; Seligman, 2011), as well as

modification in job duties, temporary duty assignments, and job rotation. The latter strategies employ a key premise of vocational fit theory—individuals with a trait deficit should seek out work situations that use their trait and avoid work situations which are not aligned with their trait.

Study Limitations and Directions for Future Research

There are several limitations of the present study. As noted above, the present study was limited to a single occasion of measurement. Also, the generalizability of findings to librarians in other types of library settings and geographic is unknown. In addition, we did not examine some potentially important factors such as librarian specialties, years of experience, and type of library. It would be interesting to see if the present results could be replicated and even extended using a more diverse sample of librarians representing different types of libraries (e.g., academic, public, proprietary, medical, law, and multimedia libraries) and different library specialties, such as reference librarians, subject specialists, acquisitions, collection development, rare books and manuscripts, web librarians, systems librarians, distance-education librarians, records managers, and library administration. Also, future research could examine whether the present findings vary as a function of gender, race/ethnicity, age, and level of experience of librarians.

Another fertile area for future research would be to expand the range or personality traits studied as differentiators of librarians. For example, one could investigate the Big Five personality traits of Conscientiousness, Agreeableness, Emotional Stability, Extraversion, and Openness. Then, too, some of the narrow traits which have been found to be important in other occupations (e.g., Lounsbury et al., 2003)

could be examined in relation to librarians, including, for example, Optimism, Customer Service Orientation, Intrinsic Motivation, Image Management, Teamwork Orientation, Tough-mindedness, Visionary Style, and Work Drive (e.g., Williamson, Pemberton, & Lounsbury, 2005).

One important topic for future research concerns the type of research design. In the present study, a single occasion of measurement was employed with all variables assessed concurrently. A much stronger design would be a longitudinal study involving repeated occasions of measurement. This would enable researchers to address issues of causality, such as whether personality traits appear to cause job performance and work satisfaction and whether, as predicted by the ASA model (Schneider et al., 1995; Schneider et al., 1998), there is increased homogenization of key personality traits within librarian job classes. An additional area for future research predicted by the Holland fit model (Holland, 1985) is whether these traits are positively correlated with job performance as well as job and career satisfaction.

Conclusions

In the present study a distinctive profile of personality traits emerged, which distinguishes librarians from a general normative group as being more apprehensive, cautious, flexible, focused, imaginative, open-minded, respectful, self-reliant, serious, tender-minded, and trusting. These results are consistent with core competences of librarians and with vocational-fit theoretical models. Hopefully, future research can determine and even extend the range and usefulness of the present findings for theory and practice in librarianship.

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