ABSTRACT

Personality Traits in the Museum Community

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The museum community relies on the cohesion of several different functional groups to successfully run an institution. This study investigates the personality traits among employees in medium-sized history museums across the country. Subjects were given a personality profile assessing the traits of the Five Factor Model of personality, and asked to indicate their affiliation with one of four museum functional categories, director/administrative, collections, education, or other. An analysis of the results indicates education staff possesses significantly higher *extraversion* than collections staff. Results also revealed that people in the director/administrative group possess higher *emotional stability* than both collection and education groups. The findings in this study can impact job placement and hiring for positions in museums. Also, a knowledge of how different groups communicate can help strengthen teamwork and understanding between members of the museum community.

Personality Traits in the Museum Community

by

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A Thesis

Approved by the Department of Museum Studies

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Submitted to the Graduate Faculty of Baylor University in Partial Fulfillment of the Requirements for the Degree

of Master of Arts

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May 2006

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ACKNOWLEDGMENTS

The author would like to thank all the museum professionals who took the time to contribute their information to this study. Without them, this project would not have been possible. Appreciation also goes to Dr. Stephen L. Williams for his relentless pursuit of a finely polished product, and dedication to expanding the museum community's body of knowledge. Thanks also to Dr. Wade C. Rowatt for his help with the statistical analysis for this project and to Dr. Thomas L. Charlton for his warm, constructive, and supportive comments. The author would like to thank the Class of 2006 Museum Studies graduate students for their support. Finally, she would like to thank her family and friends for their continuous love and support through a very difficult year.

CHAPTER ONE

Introduction

Museums are about people. People come to museums primarily to learn about different aspects of humanity's involvement in the world. Naturally, the specialty of the museum community is collecting, preserving, and interpreting objects. The primary responsibility of the museum community, however, is to educate people about the human experience, in the context of those objects. These objects largely document human events, human creativity, or the natural world. The museum community depends and thrives on the sustaining patronage of its members, the generous donations from the public, the service of its volunteers, and the dedication and experience of its staff.

The museum community has experienced many changes through the course of its history, with regard to personnel and their view on sharing information with the community. Ptolemy established the first museum, the Museum of Alexandria, in 290 B.C. (Burcaw 1997). The institution not only housed a library, astronomical viewing center, and zoo, but also had facilities for learning, research and teaching (Burcaw 1997). The decline and fall of the Roman civilization brought about deterioration of the amount of collections through the Dark Ages and Middle Ages. As the Roman Catholic Church began to gain more power and influence, it amassed collections of art and other cultural property from the plundering of the crusades (Glaser and Zenetou 1996). Many European cathedrals housed sacred relics in designated places in the church. In a special niche, the cathedral would keep some token, piece of clothing, or part of a saint as a

memorial (New Advent 2004). Visitors and travelers on pilgrimages came to see these sacred memoirs, and to remember people whom they respected greatly.

In the western world, the seventeenth and eighteenth centuries saw a rise in the number of private collections. The elite began to collect rare artifacts and natural specimens and displayed them in cabinets for viewing, prompting the name "cabinets of curiosity" (Burcaw 1997). These collectors had an affinity for the flora and fauna of the exotic lands undergoing exploration at that time. The collector did not display the collection to anyone except close friends and family. The cabinets of curiosities "constituted socially enclosed spaces to which access was remarkably restricted," to the point that sometime only the collector had access to them (Bennett 1995). Despite the interest in the New World and new people in it, collectors were reluctant to share these findings with the community at large. Into the eighteenth and nineteenth centuries, scholarship and research became a more prevalent way of looking at collection objects. As the popularity of museums spread and people established more of them, museums with exhibitions open to the public that focused on the perpetuation of knowledge became more popular. This brought the museum community closer in line to the museums of today (Bennett 1995). Today, according to the American Association of Museums's definition of a museum, these institutions are primarily for the education of the people. Henri Gregoire described museums as "temples of the human spirit" in 1792 (Weil 1995). People come to museums to learn more about the human spirit, where they fit into it, and how they relate to it.

The spirit of a museum lies in its staff. The people hired to choose the objects, protect and preserve them, and educate the community about them are the most important

parts of how the museum works towards its mission. The dynamics of museum staff have changed significantly, just as the dynamics of museum exhibit practices also have evolved. As the popularity of museums have expanded and grown, the staff needed to run the museums also has expanded. Researchers are needed, in addition to collection managers, to investigate the artifacts. As the focus of museums shifted more toward education, staff was needed to fill those positions. As the funding situation for today's museums becomes even more tenuous, marketing, development and grant writing positions are becoming necessary parts of a museum's staff (Hawley 1998). The success of a museum depends on the ability of these different functional groups to work together cohesively. Creating new exhibits, bringing in traveling exhibits, and formulating educational programming all require these groups to come together with their unique talents, in the hopes of finding those "golden moments when the team [has] a common philosophy and include[s] a good mix of personalities" (Duitz 1995). As with any organization, problems arise if communication does not take place effectively. People placed within these distinctive museum groups often have different agendas and different ways of communicating. It is proposed that individuals associated with distinct functions of a museum will have unique personality traits that will differ from other museum groups.

When groups come together with different ideas and different ways of communicating, it becomes difficult to work together. Museums have evolved into more complex places and now face more complex issues. In the 1970s, the museum community debated the nature of museum education (Fagaly et. al 1973; Savage 1973; Shannon 1974). One museum professional was asked whether she was a "people" person

or an "object" person in one of her first interviews (Jones 1998). It is this distinction that seems to differentiate collections or "object" staff from the education or "people" staff. Sometimes, the qualities that make collections and education people excel at their jobs do not make the best administrator. Each group of museum workers has different skills that make them good at what they do. The key is to get the people in these different groups to work together and communicate effectively. Certain personality traits, such as agreeableness, have been linked to teamwork (Mount et al. 1998). Compatibility as far as similar extraversion and low neuroticism also help in a team environment.

This study investigates the personality traits of four different museum groups. After assessing the most ideal personality inventory for this investigation, the personality profile is sent to possible respondents all over the country. The respondents are asked to indicate which museum category they work for, and then asked to fill out the personality profile and return it. The responses are subsequently coded and analyzed, and statistical tests are run. General descriptive statistics give a picture of the group of respondents as a whole. An analysis of variance gives a mean comparison of the four museum groups at once, and a post hoc indicates where differences between the means lie. By looking at these statistics, the personality traits unique to each of the museum groups can be pinpointed. From this analysis, suggestions are made on effective ways of applying this new information for the benefit of individuals, human resource management, and ultimately the museums that serve the public.

CHAPTER TWO

Literature Review

The United States has long been a land of new discovery and innovation.

Throughout its birth and existence, it has welcomed scores of people from different cultures, nationalities and creeds. Part of what makes the United States so distinctive is the inclusion of these differing cultures into a collective whole that makes up the domestic populace. With such a dynamic variety of cultures that Americans are exposed to in everyday living, a natural curiosity about those cultures and their history arises.

Since the early days of the first museum and botanical gardens at Alexandria in Egypt (Danilov 1994; Glaser and Zenetou 1996), humanity has wanted to learn more about its own history, and the curiosities of lands beyond their borders. It is the museum community that seeks to preserve the artifacts that carry this history and educate the local population about various subjects.

This country also has some other unique qualities that make it conducive to the development and continued growth of museums. One of the founding principles is the dedication to a democratic system of government, centering on the choice of a majority of the people. This is certainly a necessary requirement for nurturing a growing museum community. People need to be free to set up museums, and free to attend them. Because museums are set up for the benefit of the people, a democratic philosophy ensures that the museum's constituency will be involved and will be more likely to appreciate the museum's artifacts and exhibits. The United States also has placed a great emphasis on education. Education is of high importance, and resources are given for its dissemination

to the public (Lillys 1973; Suggitt 1993). By definition, museums are essentially aesthetic or educational in purpose (American Association of Museums 2005b). The importance that Americans have placed on education has allowed many museums to be created and flourish in their communities. The combination of these characteristics has made the United States uniquely receptive to new museums.

The personnel needs of museums have changed with the changing trends in the focus of museums. The earliest museums were merely collections of curiosities and artifacts exhibited in people's homes (Burcaw 1997; Danilov 1994). More professionalized museums would have a curator or collection manager for handling the collection objects. These museums were staffed by a rather elite group of educated people, and only certain groups of people came to see the artifacts (Lusaka and Strand 1998). As the focus of museums turned more towards education of the public, museum educators became a more important part of communicating information. With the freedom to establish any museum for the benefit of the public, museums sprouted up all across the country and covered any subject and all types of artifacts. Today, the public can choose from any number of museums to attend, all of which cover different topics. According to the American Association of Museums (2005b), the definition of a museum is "a non-profit institution, essentially aesthetic or educational in purpose, that utilizes tangible objects and displays them to the public on some regular schedule." This means that a museum can range from the well-recognized art, history, and science museums to children's museums and science centers, and even zoos, botanical gardens, and aquaria.

The natural diversity of the museum field affords it a distinctive variety in the personnel who work in museum settings. Historians, art historians, botanists, zoologists,

herpetologists, and archaeologists are among those who make up the unique collection of museum workers (American Association of Museums 2000). While this diversity gives the museum field a vast wealth of knowledge, it also seems to afford some difficulty in standardizing job responsibilities and educational requirements. Two curators chosen from two separate art museums may have entirely different educational strengths and experiences.

Diversity within only one museum is common also. Today's museum is a much more dynamic place than the cabinets of curiosities in the past. There are distinct functions that must be performed to ensure that a museum runs smoothly. Glaser and Zenetou (1996) define four broad divisions of the museum community: administrative, collections-related, public programming and coordinate functions. Roughly these same four divisions appear in an AAM publication on museum careers (American Association of Museums 2000).

The director and the administrative staff must ensure that the business and financial aspects of the museum are in order. The director would oversee the budget, meet with the board of trustees, converse with donors, and represent the museum to the larger community. The director, along with the administrative staff, must look after the day-to-day affairs of the museum. The director of a museum has been likened to a "beachmaster," a military commander, in charge of troops arriving on a beach, usually under harsh conditions (Dressel 1991). In this instance, the term refers to "those rare individuals who are self-reliant and strong and who thrive on the challenge of turning chaos into order" (Dressel 1990). These positions require multitasking and knowledge of different aspects of the non-profit world. It tends to be a stressful position, with new

problems and challenges often requiring quick and original solutions. The director would have to change and adapt to new situations and new information. Presenting information to the community and asking donors for money would require the necessary skills to accommodate and be pleasant to the people around them.

The collections related positions handles the objects in the museum's collection area and the information associated with those objects. Artifacts must be correctly and carefully chosen to serve the museum's mission. Objects must be accessioned so that the museum assumes complete responsibility for the object. After accessioning, the object must be catalogued, with every detail noted (Canadian Museums Human Resource Planning Committee 1997). Objects must be stored in an organized manner, with materials around it to ensure optimal preservation. Records about the museum exhibit and the environment in which the artifacts are displayed also would have to be taken. In some cases, investigation about pests might be necessary for integrated pest management. Research about the objects might need to be done to establish the history and provenance of the artifact. Collections staff excel at working independently, classifying and organizing objects into manageable groups. Unlike other positions in the museum community, people working in the collections section of the museum probably would have less contact with the public as compared to other sections of the museum. A job in collections requires attention to detail, and good research skills.

In recent years, the museum community has become more focused on public programming and the educational responsibilities to the community (Borun 1989; Davis and Gardner 1993; Lillys 1973; Savage 1973). The education section of the museum looks to bring the artifacts and the importance of those artifacts to the public. Whether it

concern school-related programming or adult programming, the education staff seeks to put the objects into a context where the community can learn about the artifacts. As museums have become essentially educational in purpose, the education section of the museum is very important to its success and marketability. People in these functions have to be able to communicate information clearly to their audience. Museum educators must be able to relate to people, and answer questions that visitors might have.

Besides these three sections of the museum, other jobs are necessary to keep the museum going. For instance, with the number of museums increasing at a rapid rate, marketing has become a way for museums to make a name for themselves in the community. Control of the museum has gradually shifted from the scholar, and is now shared with the visitors and marketers (Schwarzer 1999). There are many ways for the community to spend their leisure time, and the museum has to compete with these to get visitors to come view the exhibits. Also, graphic artists are needed for exhibits, banners, and letterheads and writers to make press releases and publications. Museum memberships can be one of the most revenue producing avenues for a museum. A good membership coordinator can convince important members of the community to continue their support of the museum through yearly memberships (Hawley 1998). Volunteers have long been a part of the museum work force, and having a volunteer coordinator on staff is often quite a useful way to keep volunteers organized and happy. In some cases, large or medium sized museums might be able to host some events or fundraisers at the museum. In those cases, an events coordinator might be necessary to keep the events scheduled correctly. Exhibit designers can be necessary to build, paint and construct the exhibits that will house the museum's artifacts. Each of these jobs requires different

skills, and in some cases different personality traits may be more common in one job than in another.

By looking at the different skills and functions of each of these sections of the museum, it becomes apparent that the positions of the museum community are difficult to put in one category, which makes evaluation and comparison of these jobs difficult. Furthermore, because these museum professions require different knowledge and skills, the people who generally fill each of these contrasting museum specialties may have very different personalities. Alexander (1999) writes that "directors, curators, educators, designers and other museum professionals will always have varied specialties." The AAM career handbook (American Association of Museums 2000) also states that "personal characteristics, attitudes and work habits have an impact on effectiveness and professionalism." The history of the museum community lends some credence to this generalization. Before the mid-twentieth century, curators, and researchers dominated the museum scene as far as personnel, compensation, and perceived importance of their contribution. Exhibits were geared much more toward what the curators thought was of highest importance and best educational value (Burcaw 1997). With the museum community shifting more toward educating the public, collections and exhibits began to change to meet these demands (Archabal 1991; Jones 1998). Exhibits focused more on what the public wanted to learn about, and catered to people's different learning styles. Curators and educators tend to have opposing viewpoints on issues regarding the artifacts and the exhibits (Fagaly et al. 1973; Shannon 1974). From this example, it is clear that the different groups within the museum have different experiences and different ways of looking at the same situation. They also communicate in different ways, and it would be

easier to collaborate with the different sections of the museum community if each knew a little bit about the other's common characteristics.

Personality

Personality profiling has been used by specialists in psychology for many years to identify traits and look to see what traits people have in common. Gordon Allport, a psychologist in the 1940s, began to study personality and traits—the observable consistencies of people's behavior (Nicholson 1998). Although Allport's "trait theory" was and continues to be hotly debated in psychology circles, it remains very compatible with quantifiable measures of personality, such as personality tests. From this theory, more personality measures came to life. Psychological personality measures began to grow and develop in usefulness and complexity.

These personality tests have helped researchers study the links between certain personality traits and issues of job satisfaction and performance. A study done by Holland (1996) confirms that without a good match between personality type and characteristics of the environment, dissatisfaction, unstable career paths and substandard performance may result. People's differing personalities give them unique characteristics and preferences. Naturally, they will gravitate towards doing something they are good at, and that highlights their talents and unique interests.

Holland (1985) also argued that every job can be classified in terms of a combination of one of six ideal types. *Realistic* jobs involve building, operating and maintaining equipment. *Investigative* jobs involve analyzing and solving problems, whereas *artistic* jobs involve entertaining people and designing or decorating. *Social* jobs involve helping people, and *enterprising* jobs require persuading and manipulating

people. Finally, *conventional* jobs require regulating people, data, and things. This theory lends itself to the museum community quite well. With positions ranging from collections, education, and marketing, to facilities, exhibit design, and administration, the required positions to keep a museum running can encompass competencies from all six of Holland's vocational 'types'. It also is theorized that certain personality traits are associated with some of the Holland vocational types (Hogan and Holland 2003).

The museum community continues its search for the best way to manage people in museums (Friedman 1982). The very nature of museum work includes coordinating projects as part of a team effort. Some responsibilities are common to all who work in museums, especially with the rise of education. According to Jones (1998), "part of everyone's job in any museum is education, just as part of everyone's job is security, development, public relations, marketing and visitor services." Putting an efficientlyworking team and promoting communication between people is one of the highest priorities in museum management (Farnell 1984). Farnell (1984) identifies four types of communication in museums: problem-solving, consultation, negotiation and information. Communication has always been important between the museum workers and the visitors, but it is of utmost importance between museum employees working together. Many problems in any organization come from poor communication practices. While functioning as object exhibitors, researchers, and educational facilitators, museum workers seldom function as a unified whole to successfully accomplish these objectives (Griffin 1987). With teamwork becoming a key aspect of successful institutions, "a focus on leadership and high quality communication" is preferable to workers becoming divided into specialized functional roles (Griffin 1988). Moreover, these once rigidly

defined roles are rapidly changing. Curator, a term that once referred to a person who was solely the "keeper of collections," now encompasses more responsibilities, such as "academic research, exhibit development, educational programming, public relations, fundraising, and non-profit administration and facilities management" (Chambers 2006; Parr 1964; Weizman 1988). Changing roles and responsibilities leads to confusion, and complicates team projects. In addition, museums have begun collaborating with other institutions. Successful collaboration requires three qualities: cooperation, coordination, and collaboration (Chesebrough 1998). Any understanding of how to better communicate and collaborate will improve the attainment of museum goals.

If members of the museum community can better understand the nature of their jobs, perhaps better job satisfaction can be reached. If an introvert is having trouble finding satisfaction with a job that requires a more extroverted personality, he can find the source of their dissatisfaction and take corrective measures by either adjusting his personality or by relocating. Similarly, if there are communication problems between groups, finding out how best to communicate with different museum professionals could enhance collaboration efforts. This study seeks to look into what personality traits might be stronger or weaker in the different sections of the museum community. The overarching goal of gathering this information is to develop better communication between the different groups, and impact career choices and hiring. Naturally, when substantial numbers of people work together, misunderstandings and miscommunications will happen. If these could be minimized or avoided, there is a chance for a more harmonious, more productive working environment. If administrators, curators, educators, and all other staff could recognize the differences between the groups, perhaps

a better understanding of their coworkers could augment cooperative activities between groups.

Personality Profiles

Some consideration must be taken to decide which of the personality profiles to use as an adequate assessment tool. A search of the literature reveals that many scales have been developed over the years to measure personality dimensions. Although most of these assessments measure many of the same dimensions, the tests usually have some differences. Within each of the assessment types, methods of testing may be different. Where one test uses a word- or phrase-choice analysis, others may use a semantic differential to look at the different levels selected for each trait. For purposes of comparison, three different personality measures are reviewed: the Myers-Briggs Type Indicator, the Five Factor Model, and the DiSC® Personal Development Profile. All of these personality measures have been used in some manner to look at personality traits and careers.

The Myers-Briggs Type Indicator was developed as a measurement tool for personality traits theorized by Carl Jung. Jung was a psychologist of the psychoanalytic school of thought. Having studied Freud's theories, Jung theorized that humans have a choice between two differing attitudes on each of four functions (McCaulley 2000).

Based on Jung's typology, Katharine Briggs and Isabel Myers developed the MTBI in the 1960s, as a psychometric analysis of those four types. The test is "a self-report, forced-choice questionnaire," in which the participant indicates preferences for each of the four dimensions (McCaulley 2000). As Isabel Myers said, "When people differ, a knowledge

of type lessens friction and eases strain. In addition, it reveals the value of differences" (The Myers & Briggs Foundation 2005).

The first of the dimensions determines where the applicant focuses their energy, whether introverted or extroverted. *Introverts* tend to do research before acting and probably work alone or perhaps in small groups. In contrast, extroverts learn by doing, and work in large groups, with more collaboration (Fekete 2003). The second set of dimensions looks at how people gather information. Sensing types gather information through the senses and relies on specific information and concrete facts, whereas *intuitive* types would be more likely to think about ideas, symbols and patterns in the information that is given to them (The Myers & Briggs Foundation 2005). The third dimension looks at how people make decisions. Thinking types are logical and analytical in their approach to decisions and will weigh the pros and cons to come up with the best solution. Feeling types more often take into account the impact on people, desiring harmony as the outcome (Fekete 2003). Finally, the last dimension looks at how one prefers to structure work. Judging types appreciate a more structured, scheduled, organized work environment to keep everything under control. *Perceiving* types prefer more casual, flexible schedules of getting things done. Depending on the choices made on these four dimensions, people can be described as one of sixteen types.

The Myers-Briggs has the advantage of longevity. It has been around, used, and studied since it came out in the 1960s. It emerged as a useable measure and comparison of personality traits. Quantifying personality into eight different traits and giving 16 personality types, makes comparison and understanding of other people much easier.

Also, because only one of the four-letter types is the exact opposite of another, having

some preferences in common can give a feel of connecting and understanding each other. It becomes easy to relate to someone with which one has some personality traits in common. However, the Myers-Briggs does have some faults. It is difficult to think that all personalities fall into one of only 16 categories. People's personalities have nuances that may not be measurable, but that give the individual some uniqueness. The Myers-Briggs also forces a bimodal distribution on each dimension. There is no middle ground; one is only on the extreme end of each dimension. This does not allow for much variation, which might naturally be seen in personality. Jung contended that these were the most important personality traits, but other models follow different views of the makeup of personality.

The Five Factor Model (FFM) developed as an evolution of the Myers-Briggs. Instead of only measuring four dimensions, the FFM looks at five slightly different domains: *openness to experience*, *conscientiousness*, *extraversion*, *agreeableness* and *neuroticism* (OCEAN). The FFM was refined significantly after its first genesis in the middle of the twentieth century. Raymond B. Cattell's research uncovered at least 12 factors, five of which were found to be replicable (Goldberg 1993). Tupes and Christal investigated a number of studies that confirmed five factors of personality. Later research by Warren Norman and others solidified these findings, although the number of personality traits is still a matter of debate in psychology circles (Goldberg 1993). It stands as a significant milestone in personality psychology because it gave the field taxonomy of traits and terms (Hogan 2004). These terms have been used to look at the personality traits of normal people as well as to compare the traits of people with personality disorders. These five factors tend to show stability across time and consensus

among many observers (Saucier and Goldberg 2003). Although the five factors used in the FFM are not considered human universals, and more critical studies of the model are needed, the FFM and several variants of it are commonly used to assess personality (Saucier and Goldberg 2003). Since the trait-based research has come out, the empirical support has grown, and the FFM is a significant part of this research (Chartrand et al. 1995). For example, the traits of *conscientiousness* and *neuroticism* (also called emotional stability) can help predict performance in many different jobs, while the other three factors relate to performance in some specific jobs (Barrick et al. 2003) *Extraversion* specifically seems to be a predictor for job performance for positions requiring interpersonal skills (Walsh 2004).

Unlike the Myers-Briggs, distribution along the dimensions follows the normal curve, so a measurement can fall anywhere on the spectrum. *Openness to experience* is the originality factor, measuring the degree to which one is open to new experiences or ways of thinking. People with high *openness* will be more unconventional and will try new methods, instead of relying on established ways. *Conscientiousness* is the consolidation factor, which measures the degree to which people control their impulses. Higher scores in this category indicate a person who stays away from trouble and tends to be considered reliable and intelligent. *Extraversion*, similar to the Myers-Briggs, looks at how much sensory information a person can tolerate from people. *Agreeableness* is the accommodation factor, measuring how people defer to others. Someone with high *agreeableness* would be tolerant and understanding of other people and their situations. Finally, though *neuroticism* may have a negative connotation, it merely measures the need for stability and the degree to which a person responds to stress. A person with high

neuroticism will worry and may not recover quickly from stressful situations (Spangler et al. 2004).

These five dimensions are similar to the four dimensions encountered in the Myers-Briggs. They do not describe how people act in specific situations, but are measures of how people react to daily life in general. Because the traits are measured on a normal scale instead of a bimodal scale, it yields a much more customized view of personality. The scale does not limit personality to one of 16 "types", but gives a unique look at each measure. These dimensions lend themselves to investigation into which traits correlate with leadership, teamwork and personality disorders. The FFM is currently the most popular mechanism for investigating and comparing personality traits in the psychology community today. Employers look at variations of the FFM to investigate compatibility of prospective employees. It also has been used to compare strength of personality traits with job satisfaction, performance and absenteeism (Judge et al. 1997).

The DiSC® Personal Development Profile has characteristics in common with both the Myers-Briggs and the FFM. Like the Myers-Briggs, this profile measures on four dimensions of personality. Like the FFM, the measures are taken on a continual scale, as opposed to a bimodal scale. A score from one to eight is displayed for each of the dimensions. Inspired by the psychology of William Moulton Marston, the test looks at the interaction of his four "primary emotions" as they are termed (Inscape Publishing 1996). The primary strength, according to a one research report, is that although it has much in common with many other measures of personality, it differs in methodology and purpose from other measures usually used to assess emotional health in clinical patients.

It is noted, however, that the only source of information on this particular profiling system is on the distributor's website (DiscProfile.com 2005). Whether the profile is too recent, is largely ignored by the psychological community, or not a proven method, remains to be seen.

To continue with a comparison, the DiSC Personal Development Profile looks at four different dimensions of personality: dominance, influence, steadiness and conscientiousness. Dominance indicates the degree to which people shape their environment by overcoming opposition to get things done. *Influence* involves the extent to which a person can shape their environment by persuading others. Steadiness refers to how much someone wants to cooperate with others to get things done. Conscientiousness addresses the degree to which one works within set rules and guidelines to ensure accuracy (Inscape Publishing 1996). A graphic illustration shows where a person falls on the continuum for each of the four dimensions. If one scores particularly high on one of the four dimensions, they are said to have a "high capacity" for that trait. High "D"s will react certain ways and will respond better to certain types of information than others. The same is true for all the dimensions. A textual report outlines some of the preferences the respondent might have for communication and work situations. If shared with other individuals, everyone can get to know how other personalities communicate and how they can work together more effectively.

Each of these different personality profiles has been applied and used to analyze personality and the work environment. The Myers-Briggs personality test has been used to look at librarians, whose profession often is used as a comparison to museum work (Teather 1990; Washburn 1985). An investigation of 1336 Texas library employees

revealed that librarians were overwhelmingly the "ISTJ" type. Sixteen and a half percent of those surveyed were ISTJ, followed by ISFJ with 11.2 percent (Bounds et al. 1994). ISTJ is recognized as "The Organizer", and people of this type tend to be analytical thinkers who are very productive, like facts and details, and work well independently.

The FFM has been used to look at which traits correlate with job satisfaction (Judge et al. 2002). It also was used to look at correlation of traits and training success in flight attendants (Cellar et al. 1996). It also has looked at the traits associated with salespeople, entrepreneurs, and trainers (Howard and Howard 2004). So there is already a basis for taking the information from these personality profiles and applying it to different professions. Choosing an appropriate personality measure for this study involves several factors. While the field of psychology in general, has had a long-term interest in personality traits, the subspecialty of industrial-organizational psychology has specifically looked at the correlation between personality traits and different jobs. There are many types of personality inventories with measurable traits that researchers have correlated into job groupings.

Problems come when trying to generalize the personalities in the museum field.

Librarians have the advantage in that they universally tend to work a standardized job.

Library work has certainly changed from the stereotypical image of a stuffy, bespectacled bookworm shelving dusty tomes. However, the American Library Association has established standardized, accredited programs that librarians must go through before moving into library work. Library training prepares them for sorting and organizing things into understandable categories and doing research to help library patrons. The museum community is in a different position. Museum studies programs are not

standardized, and there are many varieties of positions with vastly different requirements. Glaser and Zenetou (1996) list at least 30 major museum jobs and 21 other support jobs. That is over 50 different job possibilities in a museum, each with specific skills and responsibilities that differ from each of the others. Also, there are several different types of museums. Natural history, cultural history, and art museums all employ personnel of varying interests. Depending on one's definition of a museum, this also could include children's museums, zoos, aquaria, botanical gardens, and arboreta. Though all these establishments bring rich diversity to the museum community, it makes generalizations about the personality of a "museum professional" difficult to investigate. It would be very unlikely that all these museum professionals would generally fall under one personality "type," as the librarians do. Also, personality profiles rely on self-reporting to get their results. With this, the chance exists that the participant could potentially choose answers that would project an image of what he wants to be instead of what he actually is. The question of overgeneralization also arises. Some of the forced-answer self-reporting items may limit the responses, which could lead to inaccuracies in the report.

The purpose of this study is to compare the four generalized groups in the museum community to each other in terms of personality traits, using a personality inventory. By looking at the similar traits and strengths of these sections of the museum community, museum workers can find out what they have in common with each other, and become more knowledgeable about the strengths of other sections of the museum. This will, hopefully, help the sections will know more about themselves and each other. Also, future museum workers can assess their strengths and decide where they might best

fit within the museum community. A closer look at the people who make up the museum community can aid in communication, hiring practices, and job searches.

CHAPTER THREE

Methods

Participants

This study attempts to compare personality traits between the four museum functional groups by surveying museum workers throughout the country. A large sample size was needed to try to get the most responses and a good representation of the museum community. However, the United States contains over 17,000 museums (American Association of Museums 2006a), and gathering information is a multi-step process to establish criteria that would yield a useful sample for the investigation. The diversity of museums with respect to specialization, operations, staffing, and other factors, required identifying common characteristics for inclusion. For purposes of this paper, the investigation includes only museums that have achieved accreditation by the American Association of Museums. The AAM accreditation process establishes that the institution has a plan of pursuing and supporting its stated mission (American Association of Museums 2005b). It also recognizes the use of professional standards within the museum and seeks to unify the personnel behind the institution's mission. These criteria ensure that philosophies and operations are more or less standardized among differing institutions.

After narrowing the list down to AAM accredited institutions, the type of museums to survey had to be determined. In the United States, where history museums vastly outnumber all other types of museums, specifically 25 percent of all museums are history museums, according to statistics gathered by the American Association of

Museums (American Association of Museums 2006b). This does not take into account museums centered on the history of a particular object or concept (railroads, music), which make up another 11 percent. The list of AAM accredited museums was reduced to only those which AAM listed specifically as history museums in its 2004 AAM Museum Directory (American Association of Museums 2004). By crossing the AAM accredited list with those specifically listed as having history as their primary subject matter, the list was consolidated a bit more. Historic houses were excluded in this study, as they constitute a distinctively separate type of institution.

The list was reduced further by restrictions on the number of paid employees. Museums with under four staff persons were not used because there may not be enough people to fill the four distinct job specializations investigated by this study. Museums with over 50 full-time staff members were avoided because of the likelihood of overspecialization of the four job designations. It was decided that, for the purposes of this study, medium sized museums (4-50 full-time, paid staff members) would serve the needs of the study. Museums all across the country and from nearly every state were included in the initial invitation to participate in this research. Only 171 medium-sized, AAM-accredited history museums were asked to participate.

Survey

To get adequate information and to consider all factors, basic information about each respondent was acquired to evaluate the sample (Appendix A). The first question would naturally divide the respondents up according to the category of the museum in which they work. To simplify things, the designations used for this study were the four proposed by Glaser and Zenetou (1996) that were previously mentioned:

Director/Administration, Collections, Education/Public Programming, and a catch-all category termed "Other". The letter included a blank where a respondent could write in whatever term they felt accurately described their position in the museum. These data are the primary means of comparing the personality ratings.

Other demographic information was collected about each respondent, including gender, educational level, age range, length of time in the museum field, and length of time with current employer. This was done to better understand the demographic nature of the sample, even though considerable evidence is available to suggest that most demographic variables have minimal effect on a study of this type. Research concerns about the sample were taken into consideration. For example, studies in the field of psychology have continuously shown that personality traits tend to be quite stable over time, and very stable after age 30 (Costa and McCrae 1988; Costa, et al. 1999; Stevens and Truss 1985). One longitudinal study indicated that the traits of neuroticism, social extraversion and impulse control had considerably high stability over a period of 19 years (Conley 1985). Although some researchers contend that gender differences may exist with regard to personality traits (Feingold 1994), research also exists that the two genders might have more in common than might previously have been thought (Hyde 2005). As far as personality traits changing over time, even Feingold (1994) writes that "personality traits were generally constant across ages, years of data collection, educational level, and nations." For these reasons, the information gathered gave information about the sample in general, and the sample was not subdivided by their differences. Three previously discussed personality profiles were considered for this study, including the Five Factor Model (FFM), the DiSC®, and the Myers-Briggs Personality Inventory. Comparing

advantages and disadvantages of the various inventories, FFM is the method chosen for this study because the museum profession can be compared with studies done on other professions. Also, the statistics compiled can be looked at in terms of investigating job satisfaction and hiring practices.

With the decision to use FFM for this study in place, the next step involved selecting a suitable version of the FFM personality inventory. Brevity was the primary objective in choosing the best measure, but the test also had to have reliability and validity. Reliability is a measure of a test's consistency over time and validity is to what degree a test measures what it is supposed to measure (Kirk 1999). Gosling et al. (2003) gave two short measures of the FFM; one with five items and one with ten items (Appendix B). Both of the measures tested performed adequately in the study, but the ten-item test is recommended as better of the two. The more items that are used to determine personality, the more accurate the measure will be. The ten-item measure gives two statements for each of the five measures, instead of just one, which enhance the accuracy of the measure. Brief measures such as this have been used to type personalities (Lautsch and Thöle 2005) and how personality traits change in young adulthood (Robins et al. 2005). Although not as sophisticated, in-depth or labor-intensive as some of the other FFM personality inventories, the ten-item assessment has test reliability and validity, and does an adequate job of giving a correct FFM assessment in a brief form. For the brief test that was necessary for this study, the ten-item measure serves the purpose.

This ten-item test starts with a set of instructions, explaining that what follows is "a number of personality traits that may or may not apply" to the respondent. The subject

is asked to indicate to what degree they agree or disagree with the statement. A numerical scale from 1 to 7 is provided. "One" indicates "disagree strongly," "Four" stands for "neither agree nor disagree," and "Seven" stands for "Agree Strongly." The respondents are to write their numerical choice of one through seven, indicating how much they believe the group of two-word descriptors applies to them. The phrase "I see myself as" precedes the list of the word pairs. Pairs of adjectives like "critical, quarrelsome" and "reserved, quiet" are among the list. At the bottom of the list is a statement thanking the respondent for his or her participation and instructs that the survey should be sent back to the e-mail address listed.

As with any psychological study where potentially sensitive information is involved, an informed consent form is an essential part of the materials sent out to participants. The form indicates to the participants that their participation in the study was completely voluntary and that they are filling out a brief version of the FFM of assessing personality, as well as some demographic information. The form also established that the researcher ensures confidentiality for the participants, thus no name is required for submission, although naturally the e-mail address might furnish a name. In this case, each survey is supplied with a separate number and a cross-reference sheet with the names and numbers is kept by only the principal investigator having access to the information. The participants are cautioned about risks of electronic submission and instructed that if they had concerns their responses, that they could print out the sheets and mail them to the address listed. Contact information for the researcher and three faculty advisors is listed at the bottom of the page. The final line of the document

indicates that by returning the survey, the participant understands their rights and gives permission to include the responses in the study.

For the protection of the human subjects involved in this study and to comply with Baylor University policy, this study is approved by the Baylor University Institutional Review Board (Appendix C). The IRB ensures that all research associated with the university complies with ethical standards, and that human subjects are well informed of the nature of the study and their rights as participants in it. There is also an emphasis of maintaining the confidentiality of the subjects. All activities involving human responses must be approved by the IRB as a part of Baylor policy, to ensure the confidentiality of all participants. This survey meets all necessary elements, and is IRB approved.

Subject to director approval, the museums' staffs are invited to participate by the use of an e-mail message. The message indicates information contributed is used for research purposes and that participation is completely voluntary. If the museum employee agrees to participate, then the consent form, demographic information sheet and ten-item personality inventory are sent on to them. The employees fill out the information on both the demographic information sheet and the personality inventory, save it onto their computer and then attach it and include it in an e-mail returned for analysis. When all the survey responses came back, then tabulation and statistical analyses follows. To get a good comparison of the four different job designations, the responses are ideally equally divided among the four groups; if not, then e-mails are resent to the museums that did not respond.

The next step is to look at the five personality factors by museum category. Each of the five factors is split up according to the four museum categories of employment. Each personality descriptor heading, such as *extraversion*, has four subheadings of each category, each of which has its own mean and standard deviation. This gives a general picture of how the respondents in each category rated themselves with regard to *extraversion*, *agreeableness*, or other quality. The standard deviation gives a picture of where the museum community fits. Sixty-six percent of responses are within one standard deviation of the mean, so knowing the standard deviation gives a general range of where most of the responses fell. With the means for each department listed, they are compared to each other to try to locate any differences. An analysis of variance was conducted to test whether the five personality traits differed between the four museum groups and a post hoc identified where the differences lie.

CHAPTER FOUR

Results

Participants

Out of 171 medium-sized, AAM-accredited history museums contacted, responses were gathered from 25 different museums, representing 14 states. This is almost a 15 percent return from the museums that were asked to participate. On average, these museums had anywhere from ten to 12 staff people; some had significantly more and some had less. The final number of respondents was 123. Although some people chose not to answer some of the questions on the survey, the effort is considered successful in terms of getting people from all categories to respond to the survey. Two of the respondents did not indicate their gender, one did not indicate age range, and one did not indicate educational level.

Descriptive statistics were run for all of the demographic information. Frequency tables were run on the departments, duration in museum field, gender, age range, educational level, and length with current employer. Frequencies also included the percentages of the total respondents that answered in each variable category. Descriptive statistics also were run for the five aspects of the Five Factor Model: (1) Extraversion, (2) Agreeableness, (3) Consciousness, (4) Neuroticism, and (5) Openness to Experience. The descriptive statistics included the total number of respondents to the survey items, the range, mean and the standard deviation for all five of the personality factors. Looking at the mean score and standard deviation for each of the five dimensions provided a general picture of the respondents' overall self-evaluation. While a *t* test is usually used

to compare means, doing multiple *t* tests risks the chance of finding a difference that does not actually exist, which is called a Type I error. An analysis of variance (ANOVA) allows the comparison of many means without the hazard of a Type I error. An ANOVA was used to compare the means of the five personality traits by museum category to see if a difference exists between the four groups. If a difference does exist, then a post hoc test, such as a Tukey's Honestly Significant Difference test, is used to determine which means of those four groups are different.

Surprisingly, there was generally equal division of the respondents in each museum category. Thirty-four (27.6 percent) listed themselves as "Director/Administration". Twenty-eight respondents, or 22.8 percent, identified themselves as "Collections" workers, and 27 listed themselves as "Education", which comprised 22 percent of the total. Thirty-four respondents listed themselves as "Other". Some respondents used the available blank space to list their job titles. Among those listed were archives, special events, development, exhibits, marketing, graphic art, volunteer coordinator, preparator, librarian and visitor services. The generally equal division of the respondents between all four of the museum functional groups facilitated easier comparison of the groups for statistical analyses.

The question about how long the respondent had been in the museum field revealed diversity in the responses (Table 1). The highest percent (37.4) represented were workers with 0-5 years experience, followed by those with 6-10 years experience (25.2 percent); thus, over 60 percent of the respondents had been in the museum field for no more than ten years. The percentages decrease substantially after 10 years of experience.

Table 1. Duration in Museum Field

Years in Field	Frequency	Percent
0-5 years	46	37.4
6-10 years	31	25.2
11-15 years	10	8.1
16-20 years	13	10.6
21-25 years	11	8.9
26-30 years	7	5.7
31-35 years	4	3.3
36-40 years	1	0.8

The responses to the question of gender revealed that an overwhelming majority of the respondents are female. Of the 121 participants who answered this question, 88 (73 percent) of these are female and only 33 (27 percent) are male.

Age range provided a wide variety of responses (Table 2). Despite the fact that most respondents had ten or fewer years experience in the museum field, nearly half of the respondents fell between the ages of 36 and 55. About a fourth were younger, from 18 to 35.

About a third of the respondents hold a bachelor's degree, and even more have a master's degree (Table 3). Fifty-seven respondents (47 percent) indicated that they had their master's degree. Only six respondents had earned doctoral degrees. Fifteen

Table 2. Age Range

Age in Years	Frequency	Percent
18-25	12	9.8
26-30	16	13.0
31-35	16	13.0
36-40	9	7.3
41-45	10	8.1
46-50	14	11.4
51-55	27	22.0
56-60	8	6.5
61-65	8	6.5
66+	2	1.6
not reported	1	0.8

Table 3. Educational Level

Degree Type	Frequency	Percent
Bachelors	44	35.8
Masters	57	46.3
Doctorate	6	4.9
Other	15	12.2
missing	1	0.8

participants chose "Other" as the designation for their educational level. When prompted to specify, responded with "high school education" or an "associate's degree".

In looking at each subject's time with their current employer, the results showed 63 percent of the respondents had no more than five years, and 80 percent had no more than 10 years. Long term employees rapidly decline after 10 years. Table 4 illustrates that the percentages trail off considerably as the years increase.

Table 4. Length of Time with Current Employer

Years	Frequency	Percent	
0-5 years	77	62.6	
6-10 years	21	17.1	
11-15 years	4	3.3	
16-20 years	11	8.9	
21-25 years	4	3.3	
26-30 years	5	4.1	
31-35 years	1	0.8	

The Five Factor Model personality profile provides a holistic view of how these respondents perceive their personality traits. With the scale provided for this inventory, respondents chose a number from 1 to 7 to rate themselves on the five dimensions of personality. When each survey is coded, that data were manipulated such that a response of 7 indicates a higher affinity for the characteristic, and a 1 indicates a lower affinity for it. Table 5 summarizes the descriptive statistics for the five dimensions of personality.

Table 5. Five Factor Model Descriptive Statistics

Trait	N	Minimum	Maximum	Mean	Std. Deviation
Extraversion	123	1	7	4.81	1.54
Agreeableness	122	2	7	5.70	1.06
Conscientiousness	123	3	7	6.19	0.92
Neuroticism	123	1	7	2.36	1.24
Open to experience	123	2	7	5.84	1.08

As seen in the table, nearly all the respondents answered each of the items, with the exception of one for agreeableness. Extraversion is the first dimension analyzed. Responses ranged from 1 to 7. The mean for all the responses was 4.81. Extraversion was the most varied of the five dimensions. The agreeableness factor was a little less varied than extraversion, with a range from 2 to 7. The mean for agreeableness (5.7) was much higher than extraversion. Conscientiousness was rated very high for these respondents also. For this dimension, the range was 3 to 7. With an average of 6.2, it is apparent that most subjects rated themselves as very disciplined and dutiful. This was the highest mean of the five dimensions. Neuroticism, like extraversion, was one of the personality dimensions that provided some of the widest variability among the respondents. Also like extraversion, the range was across the scale, from 1 to 7.

Neuroticism had the lowest average (2.4) of all the dimensions. Finally, openness to experience was the final dimension measured. The statistics resembled the numbers found for the agreeableness factor. The range was the same, with 2 as the minimum and

7 as the maximum. The mean (5.8) was almost the same as for *agreeableness*. These statistics gave a general picture of how the museum community perceives itself in terms of the five dimensions of personality.

The five dimensions of personality were subdivided and investigated in terms of museum category. Using an ANOVA, the means were compared to see if a significant difference exists between the categories on any of the five dimensions (Table 6).

The Five Factors of Personality

The ANOVA revealed that differences did exist between some of the museum groups with regard to the personality dimensions. *Extraversion* was one of the two dimensions that displayed a significant difference between the museum categories. It was revealed that education staff (M = 5.43, SD = 1.34) rated themselves as having slightly higher *extraversion* than collections staff (M = 4.30, SD = 1.52). The degrees of freedom was 3 and the alpha level = .06.

Agreeableness and conscientiousness did not show any significant differences across the museum categories, with significance levels of .26 and .53, respectively. However, neuroticism was another of the five dimensions that does reveal a significant difference. Most of the museum categories indicated a low level of anxiety, but some departments rated themselves as more relaxed than others. The lowest of the means was director/administration with a mere 1.9. Next lowest mean was "other", with 2.3. Collections and education had almost exactly the same mean (2.7). Although the differences between the means is not as great as with extraversion, the significance level for these differences is even lower than extraversion, 0.046. This indicated that there are significant differences between the museum categories with regard to the neuroticism

Table 6. Personality Trait ANOVA Statistics by Museum Category (df=3)

Trait	Category	Mean	Std. Dev	F statistic	Significance
Ext	Director/Admin	4.71	1.53		
	Collections	4.30	1.52		
	Education/PP	5.43	1.34		
	Other	4.82	1.65	2.542	0.060
.gr	Director/Admin	5.88	1.24		
	Collections	5.43	0.94		
	Education/PP	5.89	0.84		
	Other	5.59	1.09	1.367	0.256
ons	Director/Admin	6.19	0.92		
	Collections	6.02	0.91		
	Education/PP	6.22	0.97		
	Other	6.37	0.86	0.739	0.531
eur	Director/Admin	1.94	1.03		
	Collections	2.70	1.46		
	Education/PP	2.69	1.40		
	Other	2.26	1.03	2.749	0.046
pen	Director/Admin	5.84	1.19		
	Collections	5.72	1.13		
	Education/PP	5.93	0.92		
	Other	5.82	1.08	0.159	0.924

factor of personality. The director/administrative group (M = 1.94, SD = 1.03) rated themselves as having lower *neuroticism* than both the collections group (M = 2.70, SD = 1.46) and education group (M = 2.69, SD = 1.40). This had a significance level of .046. Finally, the statistics for *openness to experience* showed most of the departments clustered together, according to Table 6. Director/administration had 5.84, collections has 5.72, education had 5.93 and "other" came in with 5.82. The significance level is 0.924, which indicates almost no differences between the departments along the lines of *openness to experience*.

Statistical Differences

The analysis of variance tells whether or not differences exist. A post hoc test is required to determine where the differences are between the groups. The most widely used post hoc test is a Tukey's HSD test, and this was used to determine where the differences in the means existed with regard to the four museum groups. The results of this analysis are shown in Table 7 with *extraversion* and in Table 8 for *neuroticism*. With *extraversion* and *neuroticism* being the two dimensions with the significant differences between museum categories, these two factors were investigated in more detail to see where exactly the differences lay. These factors were compared for *extraversion* in Table 7, and for *neuroticism* in Table 8. For *extraversion*, the greatest difference was between the collections category and education category. The difference between the means was 1.09, which is much greater than with any of the other departments. This gives a significance level of 0.045, which achieves the mark of statistically significant at the 0.05 level. In this population, there is enough of a difference between the responses of the

Table 7. Tukey Test Statistics - Extraversion

Category (X)	Category (Y)	Mean Difference (X – Y)	Significance	
Dir/Adm	Coll	0.367	0.781	
	Ed Other	-0.720 -0.118	0.262 0.989	
Coll	Dir/Adm Ed Other	-0.367 -1.087 -0.484	0.781 0.045 0.599	
Ed	Dir/Adm Coll Other	0.720 1.087 0.602	0.262 0.045 0.420	
Other	Dir/Adm Coll Ed	0.118 0.484 -0.602	0.989 0.599 0.420	

collections category and the education category to indicate that the two groups have fundamentally different personality traits.

Neuroticism was another trait that reveals differences worth investigating. The difference between the means of the collections category and education category was 0.74, which produces a significance level of 0.088. When directors were compared to educators, the difference between means was 0.744, giving a significance level of 0.089. Although 0.08 is not considered statistically significant in the traditional sense, the difference is noticeable enough for further investigation. When comparing the neuroticism ratings of collections to education, the numbers were almost identical, with a difference of only 0.007. Whereas there is a significant difference in extraversion between these two groups, their ratings for neuroticism are nearly exactly the same.

Table 8. Tukey Test Statistics - Neuroticism

Category (X)	Category (Y)	Mean Difference (X – Y)	Significance	
Dir/Adm	Coll	-0.737	0.088	
	Ed	-0.744	0.089	
	Other	-0.324	0.693	
Coll	Dir/Adm	0.737	0.088	
	Ed	-0.007	1.000	
	Other	0.414	0.545	
Ed	Dir/Adm	0.744	0.089	
	Coll	0.007	1.000	
	Other	0.421	0.540	
Other	Dir/Adm	0.324	0.693	
	Coll	-0.414	0.545	
	Ed	-0.421	0.540	

CHAPTER FIVE

Discussion

Personnel needs for museums have changed from the early years of the cabinets of curiosities. With the rise in the need for education of the public, museum educators became equally necessary with the curators and researchers. Now the museum community must compete for the attention of the public. Entertainment comes in many forms, and the museum competes with television, professional and college sports, theme parks, and other places for families to get together (King 1990). People take shorter vacations as families with two working parents or divorced parents have less time to schedule for these endeavors (Aageson 1999). To alleviate the situation, museum decision makers have begun to establish marketing departments to promote the institution to the public. According to Ames (1994), "marketing departments, almost non-existent in museums fifteen years ago, have today in many large museums become divisions, and media budgets that approach five percent of their museum's total budget are not uncommon." Museums also are bringing other professionals "to ensure that their messages are clear, consistent, and compelling" (Morris 2004). Events coordinators, volunteer coordinators and graphic designers are among the new positions that are becoming more prominent in museums. The four categories of museum jobs indicate that the museum community is made up of people with different talents and occupation preferences. The Canadian Museums Human Resource Planning Committee (1997) indicated that museum jobs as they used to be perceived are changing, and specialization is making its way into the institutions. By gathering information about personality traits

and the special competencies that accompany different museum positions, comparisons can be made between the museum categories to see where similarities and differences lie. The knowledge of these qualities can impact hiring practices, and can help workers in the different museum categories communicate more effectively with each other.

This study involved taking something commonly used in psychology and applies it to the museum community. There were a few considerations and improvements that can be made. Some of the adjective pair choices may have influenced how people rated themselves on the personality inventory. Words like "critical" or "uncreative" may have spurred some socially desirable responses. Altering some of the adjectives may reduce the chances of this tendency. Also, the sampling method for this study was more based on those who were willing, instead of taking a random sample. For future studies or an extension of this study, it would be administered at the institution, instead of by e-mail. A list of the staff would be numbered and every third name on the list would be asked to submit a survey. This would ensure a more random sample and, thus, more accurate results.

The results of this study did, in fact, reveal some of the distinctive characteristics in the museum categories. The number of respondents is not a considerably large number, but there are enough responses to make for a legitimate study of the museum categories. Fortunately, the respondents are evenly split amongst the four museum categories, with the percentages of the four groups ranging from 22 to 28 percent. This allows for an accurate comparison between the groups, because there is not too overwhelming a number of people in each group. For future personality investigations of the museum community, a larger number of participants would be desirable. The

designation of "Other" provides insight into the wide variety of new positions that museums are using. Although this item gives some new information about the expanded capabilities of the museum community, the variety of jobs listed by the respondents makes comparing that category to other categories difficult, in terms of the information it provided. Because the category does not specify which jobs are included, it is like comparing the more structured categories to a jumbled collection of vastly different positions; thus, the "Other" category has positives and negatives; it gives new information about what jobs are in these history museums, but does not yield much information when compared to the more structured categories.

General Descriptive Statistics

When the five factors of personality are evaluated, the results begin to show the general characteristics of museum professionals working in the field. The descriptive statistics of the five factors reveal that this sample generally feels calm under pressure, disciplined in striving towards goals, and sympathetic to people around them. They also rate themselves as somewhat outgoing and friendly and very creative and innovative. The descriptive statistics reveals a sort of tiered effect of the data. Of the five personality traits, *extraversion* and *neuroticism* yield the most information. Both have the widest dispersion of the data around the mean, and the range of responses for both is 1 to 7. For items concerning these two traits, the sample varies in their responses. It is interesting that the museum community's anxiety is so low (mean, 2.3). Museum personnel are under pressure to produce interesting, entertaining exhibits for the public, while also staying within the means of the budget. Nowadays, museums are "multi-functional, multi-tasking spaces accommodating varied consumer needs," which becomes much

more difficult because traditional sources of funding are becoming increasingly difficult to obtain (Schwarzer 1999). Despite trying to balance all the responsibilities of the institution, the respondents in this sample generally see themselves as calm under all this pressure, and emotionally stable. With *extraversion*, the results reflect that this general group of museum workers has a tendency toward higher enthusiasm. The 4.8 mean for *extraversion* is quite close to the middle score of 4, which indicates that the scores are probably equal for scores above and below 4.

The second tier of the five traits involves agreeableness and openness to experience. These two traits have the same range (2 to 7), almost the same mean (5.7 and 5.8 respectively) and close to the same standard deviation (1.06 and 1.08). Some of this similarity may be due to the adjective pairs in the ten-item inventory. One item used to measure agreeableness uses the adjectives "critical, quarrelsome", and another used to measure openness to experience uses "conventional, uncreative". Perhaps no one wants to see themselves as "uncreative", or does not want to admit to themselves that they actually are "uncreative". The items with these types of adjectives may have received scores based on how the respondent wants to be perceived. Adjectives without such negative connotations could have been chosen for these items to reflect a more accurate assessment of the respondents. Conscientiousness is another case where this might have happened. The mean is very close to the maximum score and the standard deviation reveals that most of the responses fell around this very high mean. Perhaps people like seeing themselves as self-disciplined and dependable, and they made their rating higher in that more desirable facet of personality. It would be interesting to change some of the

adjective word pairings on some of the inventory items and study the results of that survey.

Significant Differences

When the statistics were broken down by occupational category, statistical differences are found only with regard to extraversion and neuroticism; the other three personality factors showed no significant differences. A breakdown according to museum category reveals where the differences lie. With extraversion, the major difference in the means is between the collections category and the education category. Out of all four museum category means, education has the highest (5.4) and collections had the lowest (4.3). It is noteworthy that these two groups have historically had such different agendas (Borun 1989; Davis and Gardner 1993; Fagaly et al. 1973; Lillys 1973; Shannon 1974), and that they should differ significantly in this particular personality trait. Extraversion has to do with the way in which people communicate. The data from this study indicate that members of these two museum categories communicate quite differently, which could exacerbate the misunderstandings that occur. To communicate better, each must understand the preferences of the other group. The education category, on the whole, probably prefers a very social context and has a lot of enthusiasm. The collections category may prefer less of a social gathering, and may tend be more low-key. These are, of course, generalizations, and everyone should take individual preferences into account.

The other trait, *neuroticism*, still generally shows the sample as relaxed. The museum categories reveal significant differences between the means. Surprisingly, the director/administrative category had the lowest mean for *neuroticism*. This statistic could

be interpreted several ways. This researcher predicted that the number would be higher, and that people in the director position would have high anxiety stemming from the multitasking and responsibilities demanded of someone in that position. However, it may be the case that hiring practices favor choosing a more calm and even-headed person for the director position. It makes intuitive sense that employers would hire someone who does not get easily upset and who can respond well to change and unpredictability. Changing and coping with new situations would be needed most in the director position. A director may need to attend to "leaking roofs, intrusion alarms, budgets of endless complexity, education theories" in addition to other responsibilities throughout the day (Robinson 2004). This could be important in hiring concerns, especially for those who aspire to be the director of a museum.

The two categories with the highest mean for *neuroticism* are the education and collections categories (2.69 and 2.70 respectively). Despite the fact that they differ significantly in *extraversion*, the two categories have almost the exact same mean for *neuroticism*. Although all the groups see themselves as calm, the education category and collections category rate themselves as significantly more anxious than the director/administration category. Perhaps this score is higher because these positions see more stability in their tasks. If education people give the same types of tours everyday or collections people do many of the same repetitive tasks, it may be more difficult to adjust to sudden changes or unpredictable situations. Personnel in the director/administrative position would have more experience dealing with constantly changing situations than people in jobs requiring repetitive tasks.

Further Interpretation

This study focuses mostly on the differences between the groups. The investigation started out exploring why some of the museum categories do not get along or do not communicate well together. When working on projects, these autonomous groups and individuals of exhibit designers, conservators, educators, and object experts get together to create the project, but disperse once the project reaches its conclusion (Durel 2002). Some significant differences were found between the groups, which could explain why issues arise. However, there could be more in common between the categories than is commonly thought. Perhaps there is a group of personality traits that uniquely identify the museum community as a group, museum category notwithstanding. According to these data, the respondents all have a high capacity to work towards a goal, are organized and can be depended on to get things done. In addition, the sample reveals a group of people that like to try new things as well as creative and innovate new ideas and experiences. This group of respondents also scored very high with regard to agreeableness. They see themselves as very understanding of people, warm and sympathetic. Perhaps the nature of the museum, with its focus aimed at the public's education, the public's interest, and foundation in the public trust foster a caring attitude towards the community. Differences do exist between the museum groups, as noted here in this study. There may be more uniting the museum categories, however, than dividing them. An extension of this idea would be to compare the personalities of the museum community to those of other, similar professions. Museum workers have long been compared closely to librarians. Including field archaeologists, artists, teachers and biologists in such a study would reveal the commonalities among museum workers.

As the community begins to grow and change, the museum community also begins to adapt to its surrounding environment. The cabinets of curiosities of the past gradually began to shift into more public institutions. As society emphasized diversity, the museum community responded (Bunch 2000; Lusaka 2000). Faced with a paradigm shift stemming from the Belmont Report (American Association of Museums 1969), which insisted that museum programs focus on education as a part of its non-profit tax designation, the museum community underwent yet another shift. Museum staffs began to augment the public programming they offered their community, and espoused the commitment to be primarily educational institutions. In recent years, museum staffs have expanded their capabilities, "responding to outside forces, such as consumer trends, funders' interests, and a competitive leisure market" (Korn 2004). Through these periods of museum history in the United States, the identity of the museum worker also has changed. At one point, the museum worker was limited to those with specialized knowledge of the object. As changes occurred, cataloging and research the objects became necessary, and museum jobs expanded accordingly. With the rise in education, the museum educator has become an integral part of the museum. In recent years, museums are beginning to become more complex. In addition to education, the public demands that their learning experiences are entertaining (Glaser and Zenetou 1996). The demand for entertainment permeates the competition facing today's museums, and all museum workers, including educators, curators, designers, researchers, and administrators, must understand the desire for these interactive experiences (Adams et al. 2004). Marketing a museum is becoming more important to distinguish how a museum experience is educational, entertaining and family oriented (Morris 2004). As a result,

new staff members are being added to fulfill these needs. Website designers, copy writers, marketers, events coordinators, development officers are among the list of these supportive functions, a list that is diverse and growing as more functions are needed.

This is a time when a new shift is occurring. It is becoming more difficult to lump museum workers into one category. The importance of this new information about personality traits comes in assessing the identity of the museum community, and of individual museum workers. Students that know more about personality traits and those of the different museum categories will have an easier time deciding which museum category to pursue as a career path. According to the American Association of Museums Professional Practices Committee (1983), museum studies programs "should have specific placement objectives that reflect career aspirations." Knowing about each category's traits can help programs work with these different groups of students. Museum studies programs could help students narrow down their interests. By investigating these aspects of personality, program advisors may be able to coordinate students with different personalities and talents into a position they enjoy. Knowing what traits work best in different museum job categories also can help in hiring. If the director of a museum must approach donors on a regular basis and speak with the public, a more extraverted person may be desirable for the position, over someone who does not have an affinity for social interaction. If a job requires quick responses to unfamiliar situations, then a person who has higher emotional stability would naturally be preferred over someone with higher neuroticism. Sometimes, the qualities that make each professional excel at their position—"passion for the collections; love of research; preference for contact with stuff rather than people; talent for organizing inanimate objects into coherent groups"—did not prove useful in other aspects, such as leading a group of people or being part of a team (Graffagnino 2003).

None of these talents or personality characteristics are detrimental, however, as the complexity of an organization grows, communication between the special functions becomes more of an issue. Including a wide variety of job and philosophies can lead to a loss of cohesiveness among the employees (Teather 1990). Knowing more about each of the groups can make communication and collaboration between the groups easier. None of the museum categories exists in a vacuum; each has to coordinate with all of the others to ensure a smoothly running, successful museum. Even museums with few staff people have to coordinate with other museums, volunteers, or members of the community. Knowledge of these differences can only help the success of the museum.

Recommendations

The information gained from this study could impact museum studies programs. It is recommended that museum studies students investigate their interests and decide if they have the personality to match different museum positions. Through a self-evaluation of their own strengths, talents, and personality traits, museum studies students can further examine whether they prefer a collections, education, administration, or support positions. With further investigation, the personality traits unique to each museum position can be focused further. There is already literature that outlines the roles and responsibilities of those positions (American Association of Museum 2000; Glaser and Zenetou 1996). An appropriate place in an introductory museums course would allow students the opportunity to look at the responsibilities of each position. By assessing their own traits through a personality inventory of this type, each student may

develop a clearer idea of what position best suits their individual strengths. Psychology has developed several career assessment interest measures, including the Strong Interest Inventory, the Kuder Occupational Interest Survey and the Peterson and Seligman's Values in Action Inventory of Strengths (Hackett and Watkins 1995)

As far as future ramifications, the students who have made decisions and know where they work well might stay longer in their position, and be less likely to change to a radically different position. This could help the museum keep its personnel for longer periods. This is not to say that students should learn only about one type of museum position over another. It is important for every museum worker to know about the other members with whom they will be working.

Knowing the strengths and personality traits associated with each museum category helps in communication, planning projects, and using human resources to the greatest advantage of the museum. The diversity of the museum community is part of what makes museums so uniquely suited to providing a multifaceted experience.

Knowledge of everyone's strengths improves the quality of final products, whether that may be a collection, exhibit, or new public programming.

It is also recommended that the traits of individual positions be investigated as well. By investigating the roles and responsibilities of the museum positions, the desired qualities for these positions can be selected for when filling positions. For example, a museum educator must be able to greet the public, convey information effectively, answer questions, and facilitate a pleasant museum experience for the visitors. Students preferred for the Junior Docent Program at the New York Aquarium were those with "good oral communication skills, enthusiasm for learning and sharing information, and

poise and social skills", among other things (Hensel and Kafka 1986). Collections staff must pay attention to details for cataloging, condition reporting, and keeping track of environmental conditions. Research and writing skills are important for finding out the important information about the artifacts. Directors have to work effectively with the board of trustees and the museum's donors, as well as finding funding (Duitz 1995). The variety of challenges that present themselves throughout the day must be handled calmly and efficiently. By studying the responsibilities of these positions and the personality traits that fit best for each, employers can find the best matches to suit their museum's needs. Glaser and Zenetou (1996) list the responsibilities of a variety of museum positions. People with certain personality traits excel at some jobs more than at others, and will be more comfortable in jobs that conform to their preferences. A person who prefers to work independently would probably feel uncomfortable in a position requiring constant meetings with the public, donors, or the media. A more solitary position would be suitable for that applicant. Of course, consideration of personality traits is not the sole criteria for hiring. A person's knowledge, experience, skills, and abilities all contribute to a candidate's eligibility for any position. However, taking into account the personality traits unique to the position can help employers find someone who will reach the fullest potential at the job.

At any position within the museum, an employee must be able to effectively communicate with others. Creating a new exhibit is a team effort, and collaboration should involve combining the talents of curators, exhibit designers, education staff, and directors (Mayer 1998). Marketers also are included in to bring people to the museum. Designers may help fabricate and install the exhibit. Traveling exhibits also take a

similar collaboration between the departments. Receiving shipments, condition reporting, constructing exhibit spaces, adjusting lighting, making public programming, and marketing the exhibit are all aspects of installing such projects.

Collaboration also involves different institutions. When a museum uses a traveling exhibit or a staff member wants to use another institution's specimens for research, the communication between the two groups must be clear and effective. The importance of communication holds true for museums of all sizes, even museums with only one staff person has to work well with others. Employers consider oral and written communication as essential skills for all employees, and are seen as necessary for a worker to be involved in a team environment (Sorin and Sorin 2004). An understanding of personality traits between groups can help facilitate easier, more effective communication. Knowing the preferences and desired communication styles of the people they are working with, museum workers can plan better communication strategies with each other.

Further Research

This study assesses the personality traits of just one section of the museum community, specifically medium-sized history museums. With a bit of adjustment, the same study can identify the traits of other museum groups, such as art museums, natural science museums, and children's museums. It would be interesting to see if the findings discovered in this research are duplicated in other types of museums, or if museums with different subjects have trends towards different types of personalities than history museums. Besides the differences in *extraversion* and *neuroticism* between the museum categories, perhaps more of the similarities could be pinpointed. Finding out what unites

museum workers as a larger group would give the museum community more of an identity.

There is much information yet to learn about how understanding personality traits can help the museum community. This study investigated personality traits among four broad categories of museum jobs. Even more information could be gathered if the museum jobs involved are more specific than the four general categories. In some of the correspondence received in gathering these surveys, one respondent questioned the logic of such broad groupings, which is certainly a legitimate concern. Knowing that collections staff as a group tend to have lower *extraversion* than the other museum categories, finding out if that trait applies to all collection positions would be worth investigating. For example, collection managers and registrars work closely with cataloging and storing the objects in the collection. Curators may have a more public aspect to their jobs in dealing with donors, gathering research about the collection items, and coordinating exhibit design and installation. Details on the personality traits for specific staff positions could be useful to the museum community.

As revealed in this study, a wide variety of jobs involve the "Other" category, which made it difficult to compare this category to the remaining three museum categories. By differentiating between these different positions, specific information could be gathered about new positions in museums. A marketing director and volunteer coordinator may have different personality traits from a computer technician or graphic designer. As museums enter a new phase of focusing on marketing, technology, and high-tech interactives, any personality information about new positions might shed light on the transition that is happening.

This study is significant in that it is the first known attempt to correlate personalities with museum positions. There are studies that look at the relation of traits to other jobs or to positions requiring certain skills and teamwork (Barrick, et al. 2001; Barry and Stewart 1997; Kenrick and Funder 1988). Of course, psychology has been using personality traits to certain jobs, but applying this concept to the specific museum categories is something new. In doing so, there is now evidence that helps explain the distinctive strengths and weaknesses of individuals filling positions in collections versus those in public programming. More important is that this new knowledge creates opportunities for building effective museum staffs. There is still more research to do with regard to personality traits in the different museum groups and museum jobs. Although the field of psychology has led the way in research of this type, little has been done as far as looking at the museum field. Scholars in the museum community have had interest in managing people, hiring, and communication. Research into personality traits is just one step in a longer process of investigating the types of people in the museum community. With new studies looking into more specific details about museum positions, individuals in the museum community can make more informed decisions about careers, placement, and creating effective teams.

APPENDICES

APPENDIX A

Demographic Information Sheet

Personality Profile Demographic Information

	llowing museum functions best describes
your occupation Director/Administration	Education/Dublic Dragramming
Collections	Other (please specify)
2. Please indicate how long y	ou have worked in the museum field.
0-5 years	31-35 years
6-10 years	36-40 years
11-15 years	41-45 years
16-20 years	46-50 years
21-25 years	51+ years
26-30 years	
3. Please indicate your gende	er
4. Please indicate your age ra	inge.
18-25	46-50
26-30	51-55
31-35	56-60
36-40	61-65
41-45	66+
5. Please indicate your highe	est educational level.
Bachelors	
Masters	
Doctorate	
Other (please specif	·y)
	t of time with your current employer.
0-5 years	31-35 years
6-10 years	36-40 years
11-15 years	41-45 years
16-20 years	46-50 years
21-25 years	51+ years
26-30 years	

APPENDIX B

Personality Profile

Ten-Item Personality Inventory

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which *you agree or disagree with that statement*. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree Strongly	Disagree moderately	Disagree a little	Neither agree nor Disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:

1.	 Extraverted, enthusiastic.
2.	 Critical, quarrelsome.
3.	 Dependable, self-disciplined.
4.	 Anxious, easily upset.
5.	 Open to new experiences, complex.
6.	 Reserved, quiet.
7.	 Sympathetic, warm.
8.	 Disorganized, careless.
9.	 Calm, emotionally stable.
Λ	Conventional uncreative

Thank you for your participation! Please save this and e-mail back to leslee_elliott@baylor.edu when completed.

APPENDIX C

IRB Exemption Form

BAYLOR UNIVERSITY COMMITTEE FOR PROTECTION OF HUMAN SUBJECTS IN RESEARCH

Serving as the Institutional Review Board (IRB)

NOTICE of IRB REVIEW

IRB Project #: 149 Academic Year: 04-05

	Proposal: Personality Traits and the Museum Community
Principa	l Investigator: Leslee Elliott
Notice is was:	s hereby given that the Baylor IRB has reviewed your proposal. The action taken
	Approved Approval period is for twelve months and ends on
stipulatio	Approved with stipulations to be met Please see the enclosed list of
	Not all stipulations met Please see the enclosed list of stipulations not met. The project cannot begin until the investigator receives final approval in writing.
<u>X</u>	Exempt from review (Code of Federal Regulations, Title 45, Part 46, Subpart A, Section 46.101b)
	Tabled Please see the enclosed information.
	Not approved Please see the enclosed information.

Thank you for your cooperation. Please feel free to contact Dr. Matthew Stanford, Chair of the Baylor IRB, or his assistant, Ms. Nancy Ulman, at 254-710-2961 for more information or if you have any questions.

MAThou PANCOR	July 17, 2005	
Dr. Matthew Stanford, Chair, Baylor IRB	Date	

Baylor University IRB One Bear Place #97334 Waco, Texas 76798-7334

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