

The Information-Seeking Behavior of Experienced Researchers in Archives

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Abstract

This three-prong research proposal seeks to take an in-depth look at the information-seeking behavior of the users of National Archives and Records Administration Pacific Alaska Region, Seattle, Washington. Data from the study will offer insight into who the primary archival users are and describe the actions, thoughts, and emotions of experienced information-seekers researching in the archives. This information will help determine how archivists might better aid researchers in their archives. Additionally, this study may offer future researchers methods to conduct similar studies elsewhere.

Keywords: Information-seeking behavior, information search models, archives, genealogists, Carol Collier Kuhlthau, Wendy Duff, Catherine Johnson, archival patron surveys, National Archives and Records Administration.

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CHAPTER I: INTRODUCTION

Introduction

From the time of the French Revolution, archivists have placed their emphasis on the documents they acquire, preserve, and make available, rather than on improving their patrons' access to the documents (Freeman, 1984; Panitch, 1996). Only in the past two decades have archivists begun to study the information-seeking behaviors and the needs of their patrons (Duff & Johnson, 2003). Whereas, librarians and information science professionals began in the late 1960s to undergo a paradigm shift, ultimately, moving from a "bibliographic" or a collection-centered focus to a "client-centered" focus (Greer, Grover, & Fowler, 2007, p 41). Research into how patrons sought information to fill information gaps and the delivery of reference services dramatically changed and continue to impact how librarians deliver services to their communities (Case, 2007; Greer, Grover, & Fowler, 2007; Kuhlthau, 2004; Rubin, 2004).

Although there are numerous studies of information-seeking behavior of seasoned researchers in various professions, there are few studies looking at information-seeking behavior of archival users and whether archival reference services and tools, such as finding aids, meet researchers' needs. "At the heart of archival theory is the record, while the various types of researchers who visit archives seeking information receive scant attention," (Duff & Johnson, 2003, p 79). This study seeks further to close this gap in knowledge by determining who the primary archival user groups are at one archives in the Northwest, discovering whether their needs are served by the existing reference services and tools, and describing how they use archives and their information seeking behavior.

Purpose

The purpose of this mixed quantitative and qualitative study is to gain a deeper

understanding of the researchers in of the National Archives and Records Administration Pacific Alaska Region, Seattle, Washington. Once completed, the results of this study will offer insight into the information-seeking behaviors of more experienced researchers and to what extent archival reference tools and services aided their research. The experienced researchers in this study will have spent at least five years conducting various types of research. Previous surveys have implied that the traditional finding aids were either cumbersome or not sufficient tools; half of the researchers sought out the archivist or reference desk for assistance (Freeman, 1984; and Conway, 1994). Additionally, Paul Conway's extensive survey in the early 1990s of patrons of the National Archives and Records Administration gives only the most general understanding of users' needs, breaking the reason for using the archives into academic, occupational, personal, and avocational (Conway, 1994). This study will look at users' needs and attempt to recommend changes archival reference tools, such as finding aids, in order to improve their usability, as well as advance knowledge of the information-seeking behavior of experienced researchers who go to archives looking for specific information on deadline. These are archival users that the first president of the Academy of Certified Archivists Gregory S. Hunter calls "researchers of the fact" and they make up the bulk of all archival users (Hunter, 2003, p 216).

Significance

Although there have been various studies of the users of archives at different sites of the National Archives and Records Administration and other cultural institutions, including historical societies, art museums, and universities, many of these studies were concerned with type of documents sought by researchers, rather than what archives users needed to find information or how they conducted their searches for information (Duff & Johnson, 2003; Freeman, 1984). In the field of library science, numerous studies have been conducted on

experienced researchers, including judges, securities analysts, lawyers, nurses, and other professionals, (Baldwin, 1996; Kuhlthau, 2003; Wakeham, 1992). However, it appears that with the exception of genealogists (Duff & Johnson, 2003), there are serious gaps in our knowledge of the information-seeking behavior of experienced archival researchers. These researchers include lawyers, journalists, genealogists, and other professionals or hobbyists of a high competency and experience level who work in archives under limited time constraints (Hunter, 2003). Learning how these “researchers of the fact” (Hunter, 2003, p 216) seek information from archival documents will be valuable in making archives and archivists more user-friendly. Becoming more user-centered is an increasingly important quality in an environment where the competition for funding has grown increasingly fierce and the budgets of many nonprofits, including libraries and archives, are being slashed (ALA, 2010). Additionally this knowledge can aid archivists who seek to digitize their collections or organize finding aids in databases by providing a better understanding of users’ search methods.

Summary

Overall, this study would serve to provide archivists and librarians in historical societies with insight into how researchers seek information in archives. With these discoveries, archivists have information that could help them move from being gatekeepers to artifacts to a trusted and relied upon source of information.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

This literature review was conducted to identify the relevant research and surveys related to archival patrons and their information-seeking behavior. Secondly, this review discusses research that expands our knowledge of information-seeking behavior of experienced researchers, especially professionals who might seek documents in an archival setting. Several resources included in this proposal have been written by researchers in the field of libraries and information science. The qualitative aspects of this study will be dependent on the model set by the groundbreaking longitudinal studies of Carol Collier Kuhlthau. Finally, this review will delve into the research published since the 1990s that investigates information-seeking behavior of archival users.

A Survey of the Surveys of Archival Users

The paradigm shift in library science that began in the late 1960s, moving the profession from a collection-centered focus to a client-centered focus is well documented (Greer, Grover, & Fowler, 2007). Likewise, a few archivists in the 1970s and 1980s demonstrated (Freeman, 1984) that archivists were firmly entrenched in a “material-centered,” rather than “client-centered,” perspective (Hunter, 2003, p 217). In fact, much of the professional literature of the Society of American Archivists focuses on the organization and preservation of the materials and the competing perspectives and interests of the national and state archivists (Gilliland-Swetland, 1991), rather than on methods to improve reference services through analyzing information-seeking behavior, such as “sense-making” (Dervin, Foreman-Wernet, & Lauterbach, 2003).

At least one early study at the National Archives was based on forms used to request documents (Freeman, 1984), which did not capture the perspective of researchers who did not

locate an item they wanted to view. Other studies of the National Archives and Records Administration lacked details about users' professions, research goals, and the difficulties they encountered in their searches (Freeman, 1984; Conway, 1994; Duff & Johnson, 2003). The National Archives conducted one survey of its users in 1976 and another in 1990 (Freeman, 1984; Duff & Johnson, 2003). In an earlier survey of users of one national collection, 30 percent of people responding checked "other" as their profession (Freeman, 1984, p 117), a telling symptom that archivists were out of touch with archival users.

In her 1982 presentation to the 46th annual meeting of the Society of American Archivists and in her 1984 paper *In the Eye of the Beholder: Archives Administration from the User's Point of View*, Elsie T. Freeman, former director of Academic, Professional and Public Programs in the Education Division of the National Archives, put archivists on notice. The profession had not been thinking about the users in their archives. Freeman detailed the profession's lack of a user-orientation, especially toward nonprofessional researchers such as genealogists; the lack of knowledge of their users, the lack an understanding of the research process, and the inability to provide practical and sufficient help to users (Freeman, 1984).

Freeman wasn't the only one expressing concerns. Many professional researchers avoided archival reference tools in favor of referrals from other researchers or reading about collections in secondary sources, according to Margaret F. Steig's survey of 767 historians (as cited by Freeman, 1984). Steig also found that a number of historians didn't use indexes or abstracts at all, finding them "irrelevant" (as cited by Freeman, 1984, p 115). The reliance on secondary sources and word-of-mouth echoed conclusions made by Michael Stevens in a previous study (Freeman, 1984). Freeman argued that Steig's and Steven's findings cast "severe doubt on the utility" of archival finding aids (Freeman, 1984, p 115). At the time many archival

finding aids were published in an index. With many institutions posting finding aids online, there is a need to replicate Stevens' and Steig's studies. This will help determine whether historians' actions stemmed from inconvenient finding aids or whether they are relying on trusted sources of information, such as the people and books they know. Brenda Dervin theorized that human beings prefer information from sources they trust (Case, 2007), which would offer another explanation for the historians' avoidance of archival finding aids.

In 1990, Paul Conway took up Freeman's challenge to some extent and conducted surveys of patrons of using the National Archives. Conway found that "in spite of a fairly cumbersome, time-consuming reference process, researchers report that they are generally successful in identifying relevant information in the holdings" (Conway, 1994, p 81). Conway reported that 65.8 percent of the total researchers surveyed had success. Conway's surveys separated researchers using the National Archives into four categories: academic, occupational, personal, and avocational research. The academic group reported the highest success rate, 70.3 percent, and the personal, the lowest, 60.9 percent (Conway, 1994), a telling result considering that genealogists make up the largest group (Duff & Johnson, 2003). Conway did not disaggregate his findings by profession. As a result, a breakdown of specific professions and avocations is missing from his report. The survey did not ask archival users to say the distance they traveled to the archives or to select the type of documents sought. This type of information is necessary to most user surveys and would have helped give a more complete picture of the users of the National Archives. Future surveys of NARA users need to include questions that would elicit that type of information.

Conway's results are suspect to some extent because the surveys were administered at the end of the research process. There appears to be no tracking of people who aborted their

searches, leaving the archives unsatisfied. Conway qualifies that “more than half” of the researchers who reported dissatisfaction were in early stages of their research process. “Success in retrieving relevant information may tend to erase, at least for the moment, memories of difficulties or frustrations encountered earlier in the research process” (Conway, 1984, p 82).

Additionally, Conway’s survey appears to be aimed at looking into the satisfaction levels of archival users who are able to take considerable amounts of time to conduct research in the archives. His work does not appear to address the breakdown between archival users who are operating on a tight deadline -- such as a lawyer preparing a case, a journalist needing to turn a story around in a few days, or a genealogist on vacation in Washington, D.C. Like many archivists, Conway appears to have operated under the assumption that users will go through “cumbersome, time-consuming reference process” to find what they seek (Conway, 1994, p 45). Yet we know from Patricia Dewdney and Catherine Sheldrick Ross’ work that library users become frustrated and are turned off by cumbersome, clumsy, and insensitive librarians and library processes (Dewdney & Ross, 1994). It makes sense to wonder whether archival users experience the same problems described by Dewdney and Ross.

This flaw of material-centered focus and processes that guide interactions with archival users appears to persist into the early 21st Century. Among archivists, the perception that archives main users are “researchers of the interpretation” persists. In other words, archivists think their main customers are traditional researchers who expect to spend weeks pouring through documents (Hunter, 2003, p 216). In reality, “researchers of the fact,” people who must find information quickly to meet deadlines, are the main archival users (Hunter, 2003, p 216).

Development of Information-Seeking Behavior Models

A number of researchers in library, information, and social sciences began in the late

1960s to look at information poverty, gaps in communication, and how different socioeconomic groups used information. In 1977, Brenda Dervin critiqued many of the traditional assumptions that had been made about information and communication. “One begins to understand that much of the social sciences is based on mythical data collected by asking people to care about and make sense of things that have nothing to do with their own lives as they see them,” according to Dervin (as cited by Dervin, 2003, p 36). Dervin’s and other’s critiques of previous assumptions were major motivators for librarians and information science researchers shift toward Constructivist thought. Library literature became dominated by the Constructivist philosophy that library patrons’ experience shaped their knowledge and their ability to search for and use information. Dervin and Benson Fraser’s report to the California Library System identified 16 “affects” or emotions, such as happiness, confirmation, or feeling connected, that libraries helped generate (Nahl & Bilal, 2007). This paradigm shift to consider the library users’ needs and emotions has guided research of library patrons and other information seekers for the past 30 years. As a result, extensive research has been conducted on information seekers in a number of life circumstances and professionals, such as engineers, medical professionals, stay-at-home mothers, and public school, college, and university students, resulting in the development of the theory that emotion influences information seeking behavior and models of that information seeking behavior (Case, 2007; Nahl & Bilal, 2007).

Research into the Information-Seeking Behaviors of Experienced Researchers

There are numerous studies on the information seeking behaviors of experienced or savvy researchers. A search on WorldCat database reveals that savvy researchers from a number of professions, especially the medical and financial fields, have been the subject of dozens of doctoral dissertations or published papers in library sciences. Additionally, the role emotion

plays on information-seeking behavior has been well documented in various case studies of many groups (Nahl & Bilal, 2007). Several studies that are relevant to this proposal and suggest focuses for additional research into information-seeking behavior, especially experienced researchers who are searching in archives.

In 1996, Nancy Sadler Baldwin, a graduate student at Columbia University, N.Y., analyzed the securities analysts' information-seeking behavior in New York to satisfy part of the requirements for her doctoral dissertation. Baldwin's focus on modeling the behavior of people seeking information while under a deadline to analyze complex market situations has the potential to inform a model for archival users' information seeking behavior. However, closer examination of Baldwin's study indicated that the model she adapted -- based on a 1995 paper on the influences of voicemail -- may not be appropriate for archival users. Baldwin found that a number of her subjects didn't use the library inside or outside of the financial institutions they worked for. They also generally did not seek help from librarians, preferring to rely on other methods for obtaining information, such as subscribing to periodicals (Baldwin, 1994). Both Baldwin's creation of a survey and her coding and analysis, using a Lotus spreadsheet and a computer program called Statistical Package for the Social Sciences, are informative to the act of creating of a similar survey. However, her information model is not well suited to information seekers who use the library more than the securities analysts. Indeed, many of her subjects were motivated by financial gains directly tied to the outcome of their information searches and that is reflected in Baldwin's model. The only emotion she includes in her model is the level of satisfaction the information-seeker had upon completion his or her tasks.

Another information-seeking model that offered promise for this proposal was that developed by Brian C. O'Connor, Jud H. Copeland, and Jodi L. Kearns (2003). They looked at

two case studies of a bounty hunter and a retired Navy submarine tracker. They proposed a model based on what O'Connor and Copeland admit is a superficial analysis of anthropological theories of hunting and gathering behaviors. O'Connor and Copeland describe evolving information searches to the actions taken by the two participants in their two case studies. Additionally, O'Connor and Copeland adopted search tactics -- specifying, exhausting, parallel, pinpoint, and block (Marcia Bates, 1979, as cited by O'Connor & Copeland) -- to describe the actions taken by the case study participants. O'Connor and Copeland also proposed a "foundational model" to describe the each participant's actions. Their initial model indicates three steps with information-seekers encountering barriers to their research as first a "little bump in the road," then a bigger bump," and finally, a "major obstruction" (O'Connor, Copeland & Kearns, 2003, p 8-9). This model overly simplifies the complex actions taken by the participants in the two case studies.

O'Connor and Copeland relay the two case studies in a very matter-of-fact manner, including citing directly the bounty hunter's case files. As a result, there is little recording of the subjects' emotions during their respective searches, and O'Connor and Copeland's model explores the cognitive, rather than the effective. Considering that other studies indicate that emotion plays a strong role in information seeking (Nahl & Bilal, 2007), to not include emotions experienced in the O'Connor and Copeland case studies seems to be a major oversight. Ultimately, the model developed by O'Connor and Copeland seems best for describing the search for information about prey that moves independently, such as enemy submarines or a fugitive. It is not the best model to describe searches for information in archival collections that generally do not flee the researcher.

Including the emotions, actions, and thoughts of her subjects, Carol Collier Kuhlthau

developed a six-stage model for the information search process. Kuhlthau published her groundbreaking longitudinal studies of students' information-seeking behavior while researching term papers in the late 1980s and early 1990s and then in the book *Seeking Meaning: A Process Approach to Library and Information Service* (2004).

Kuhlthau's six stages are task initiation, topic selection, pre-focus exploration, focus formulation, information collection, and search closure (Kuhlthau, 2004). The stages also are called "initiation, selection, exploration, formulation, collection, and presentation" (Wilson, 1999, p 255). Kuhlthau also explored the thoughts, feelings, actions, strategies, and moods of the high school and college students that she studied finding that the students experienced similar emotions, thoughts, and moods at different points in their research process (Kuhlthau, 2004).

Over the course of the Kuhlthau's six stages, the information-seeker experiences different types of emotion. At the start of the search, the information seeker experiences feelings of anxiousness, frustration, and doubt. Over the course of conducting research, those feelings change, gradually becoming more confident until a feeling of relief is experienced upon completion of the research. Once the information-seeker had produced a product, such as a term paper, that person experiences either satisfaction or dissatisfaction depending on the outcome of his or her work (Kuhlthau, 2004). This model may be the best one to the information-seeking processes use by archival users, especially because Kuhlthau address the impact of emotion on decisions.

Investigating Information-Seeking Behavior

In order to determine the best methods to explore information-seeking behavior of archival patrons, it is important to consider how similar research was conducted in libraries.

Kuhlthau administered an extensive questionnaire (see Appendix A) at various points in

research process that asked students to check the boxes to describe their tasks, what actions they were taking, what they were thinking, and how they were feeling. She coded the questionnaire responses (see Appendix B) so that she could statistically analyze the students' statements about their actions, emotions, thoughts etc., at different points in the search process (Kuhlthau, 2004).

In a similar study conducted in 2008, Alison J. Head and Michael B. Eisenberg of The [sic] Information School at the University of Washington used 90-minute discussion sessions in 2008 with 86 sophomores, juniors, and seniors studying the humanities and social sciences at seven college or university campuses to conduct qualitative research on how students conduct research as part of Project Information Literacy. Head and Eisenberg's research liaisons recruited a voluntary sample and ranked the students' various perceptions of their information literacy on a 1-to-5 scale with one being the lowest level. Volunteers were obtained by recruitment through posters and recommendations of instructors. The use of volunteers, as well as the inclusion of an all-women's college, affected the gender demographics of the study, which had 70 percent female participants (Head & Eisenberg, 2009). Although this study was looking at information literacy, it yielded information that helps expand our knowledge of information-seeking behavior when it comes to college-aged adults working on papers or other assignments for the classes. A number of students earning Bs and above and participating in structured and unstructured interviews in focus groups told researchers that they would pre-research the background of a topic using *Wikipedia*, an online encyclopedia that anyone can edit provided they follow a set of rules, to make decisions about the direction of their information searches and guide the next step in their research (Head & Eisenberg, 2009).

Head and Eisenberg's research indicates that information seekers will use technology and other resources to condense the time it takes to move from the first to second steps of an

information search as defined by Kuhlthau, task initiation and topic selection. It is unknown what impact their actions had on the emotions experienced by the participants in Head and Eisenberg's study. The condensing of steps in an information search and the effect on emotions and actions is an area that needs additional research. Head and Eisenberg's methods of seeking volunteers are helpful to this proposal.

Relevant Methodologies to Investigate Archival Users' Information Seeking

There is a great deal of research on the information-seeking behavior of library patrons and professionals in non-library settings, such as medical centers, financial institutions, and colleges. However, there is a dearth of research of archival patrons, especially those patrons whose profession or avocation requires them to be experienced researchers. A recent search of the Society of American Archivists' database for the keywords information-seeking in papers published in the association's journal the *American Archivist* yielded 36 results. Yet only eight papers actually focused on archival users' behavior while searching for information. Similar searches in other databases in the professional literature related to archives yielded the same scarcity of results. Indeed, it was not until the 1990s that archivists began to study how archival users conducted research in archives (Duff & Johnson, 2003).

In the ensuing two decades, much of the relevant research has been conducted by Wendy M. Duff, an associate professor at the University of Toronto's iSchool; Catherine A. Johnson, who received her doctorate at the University of Toronto; Elizabeth Yakel, an assistant professor at the University of Michigan School of Information; and Deborah A. Torres, assistant to the associate dean at St. Catherine University in St. Paul, MN.

Duff and Johnson's (2003) study of ten Canadian genealogists information-seeking behavior in the archives through structured and unstructured interviews offers a way to analyze

interviews. Although the size of Duff and Johnson's study is too small to be generalizable, their work offers valuable insight into potential directions for future research and guidance for future, similar studies.

Common themes emerging from the genealogists' interviews indicated that the ten participants frame their searches in terms of their needs -- such as names, place names, and dates -- rather than the way the archival collections are organized. For about 200 years, archivists have organized their collections based on original order and provenance and written finding aids, the archival version of an index, which often contains less information than a typical entry in a library catalog. In Duff and Johnson's study, participants reported that they created parallel systems to bridge the difference between their needs and the way archives were organized and relied on their own networks, rather than help from archivists.

Among the ten participants were several professional genealogists. The professional genealogists told the researchers that they had to adapt their mindsets, especially when researching in large repositories, such as the National Archives. The genealogists had to become less "people related" and more "event related" or "system related" in order to find records about individuals who were at historic events (Duff & Johnson, 2003, p 87).

After transcribing the interviews, Duff and Johnson worked separately to code the data using NVivo and then comparing coding and resolving disagreements through discussion (Duff & Johnson, 2003). This procedure similar to peer-debriefing and seeking feedback (Gay, 2009) helped ensure the validity of the coding.

Although Duff and Johnson's work needs to be replicated, their paper yielded insight into how some genealogists' think in order to work around the archival indexing systems set to find information. Many genealogists develop parallel systems to help them retrieve records because

the “archival information system fails them” (Duff & Johnson, p 92). Although an expert genealogist can efficiently and effectively access information in archives, “...genealogists gain their knowledge in spite of the system, not because of it” (Duff & Johnson, 2003, p 91), reframing their questions in terms of events or locations, rather than the names of the people they were seeking information on. As a result, a number of the ten genealogists interviewed by Duff and Johnson expressed frustration and found they relied on networks of genealogists to assist their information-seeking efforts (Duff & Johnson, 2003).

Duff and Johnson’s work raises the question of what methods of archival organization would aid information seekers and whether duplication of records in an electronic database or migrating the information in the finding aids to an electronic database would help.

Duff along with four other researchers have been developing standardized questionnaires to evaluate archives from a user perspective (Duff, Dryden, Limkilde, Cherry & Bogomazova, 2008). Once completed and the validity is determined, it is possible their standardized questionnaires will be informative to an investigation into the information-seeking behavior of archival users. At this writing, it is too early to know whether their work will be relevant to this proposed study.

Summary

When it comes to understanding the needs and information-seeking behavior of archival users, the archival profession still is in the midst of its own paradigm shift toward user-centered services. Additionally, little research has been conducted on archival users’ needs, making it difficult for archivists to determine the best practices for working with researchers in their collections. Kuhlthau’s and Duff and Johnson’s work offer perspectives on the next research steps to take.

CHAPTER III: METHODOLOGY

Introduction

The following chapter will outline the mixed-method study that will be conducted at the National Archives and Records Administration Pacific Alaska Region, Seattle, Washington. First, a survey and a scale will be administered to between 100 and 300 archival users. Following the survey, five to ten experienced researchers who have volunteered will complete questionnaires and participate in at least one in-depth interview. This three-pronged approach will triangulate the data gathered in this study and help confirm the findings. As a result, this will add to our understanding of the information-seeking behavior of archival users in the Northwest and will potentially offer a research model that could be undertaken in other settings.

Research Questions and Statement of Hypothesis

This study seeks to begin to answer several questions: Who are the users of archives? What are their professions or avocations? What are their levels of experience conducting archival research? What time constraints do archival users operate under? How far do they travel to conduct research in the NARA Pacific Alaska Region's Seattle office? What are the stages of archival researchers' information seeking behavior? Which archival reference tools or services are the most helpful to archival researchers? What model of information seeking behavior might be appropriate to describe experienced researchers work in the archives? What levels of confidence or anxiety of archive users during their research? What are the emotions, actions, and thoughts do archival users experience when conducting research? How might this additional knowledge aid archivists in facilitating the archival research process?

Role of the Researcher

I received a Bachelor's of the Arts from the University of Nevada Reno in 1989,

majoring in printmaking and drawing, with a minor in museum studies and receiving both academic and art scholarships. Additionally, I took a number of science and political science classes and was just a semester short of completing a double major in political science. I pursued a career in journalism and worked almost 15 years as a journalist at several daily newspapers, including *The Salt Lake Tribune*, covering education, police and fire, courts, environment, and politics, including municipal, county, and state governments. In 2007, I also completed a computer-assisted reporting course offered by the Investigative Reporters and Editors, a professional association of which I am a member, in order to improve my skills at crunching data. In August 2009, I enrolled in Emporia State University's School of Library and Information Management to pursue my master's degree and expect to graduate in August 2011. This research proposal is to satisfy a requirement for LI-810. However, with a few modifications, especially approval from the Emporia State University's Institutional Review Board for Treatment of Human Subjects and the National Archives, this proposal could be used in part or as a whole to seek funding for a real-life study of archival users.

Participants

There will be two groups of participants in this study. All will be users of the National Archives and Records Administration (NARA) Pacific Alaska Region, Seattle, Washington. The first group will be between 100 and 300 people who chose to take two confidential surveys that will be administered mail, e-mail, online, or in person. A survey sample larger than 300 would not necessarily yield more informative data, as well as being cumbersome to tabulate. A sample that is smaller than 100 likely would not offer statistically significant findings. The total number of archival users surveyed will depend on how many people agree to participate. The surveys can be taken at their convenience and will last no more than an hour in duration. Some bias is

expected because the respondents will be self selecting and self reporting and likely will be regular users of the Seattle archives.

For the qualitative aspects of this study, a second group of participants will be needed. The researcher will seek volunteers who are experienced researchers through signs posted at the National Archives and Records Administration Seattle office and through cooperation with the archivists at the NARA Seattle office. An experienced researcher has spent least five years experience conducting research of many types and has conducted research at least once in the Seattle NARA office.

Based on anecdotal information obtained from Patty McNamee, a National Archives and Records Administration archivist, these volunteers could be lawyers, journalists and other writers, engineers, planners, and genealogists. Many of the people conducting research at the NARA Seattle office are looking for information on environmental and immigration issues (P. McNamee, personal communication, March 15, 2010). It is expected that most if not all of the participants will be “researchers of the fact” (Hunter, 2003, p 216), which are researchers who need information quickly. The participants’ backgrounds, experience levels, and reasons for researching at the NARA archives will be obtained through a questionnaire. These volunteers will need to commit to filling out questionnaires at least one or two points in their research and undergoing up to two half-hour- to hour-long interviews aimed at a deeper understanding of the participants’ actions, thoughts, and feelings during the course of one information search. The participants’ identities will be confidential and specific aspects or facts of the information they seek will be generalized, especially in the case on lawyers or people pursuing immigration claims, to ensure that confidentiality.

Materials

The materials used for this study will consist of survey instruments on paper or online in Survey Monkey and questionnaires on paper or online. It is possible that the National Archives staff in Seattle could set up a computer terminal in the office to administer the survey. The interviews will be recorded with a digital recorder, and the interviewer also will take written notes as a backup. These recordings and notes will be transcribed, but the recordings will be considered the primary source for analysis. Two of the three materials, Carol Collier Kuhlthau's questionnaire and the Library Anxiety Scale are located in Appendix A and C, respectively. There will be flash drives and other electronic media to back up the spreadsheets and other documents used in this study.

Design and Procedure

This study will be conducted over the course of a year in three phases. In the first three months, the quantitative data of this study will be gathered in two phases through two confidential surveys will be administered to users of the National Archives and Records Administration Pacific Alaska Region, Seattle, Washington through mail or e-mail by obtaining the archives logs of researchers or via the NARA office's webpage. The cooperation of NARA staff in the Seattle office is necessary, especially if the surveys were to be administered as part of the exit procedures as researchers leave the facility. If need be, follow up e-mails or mailings will be sent if the number of surveys returned isn't high enough.

The third phase of interviews will last for nine months at the most. Each participant is expected to only volunteer for one or two interviews and filling out Kuhlthau's questionnaire, a process that is expected to take a maximum of two hours.

The first instrument, Bostick's (1992) Library Anxiety Scale (Appendix C) (as cited by Nahl & Balal, 2007), will be administered over three months via the NARA's webpage for the

agency's Seattle office, at the physical office, and possibly through e-mail or mail to researchers who signed into the archives' visitors' log. Researchers using the webpage will be offered the opportunity to complete the Bostick scale when they browse away from the webpage. If they agree, they will be redirected to an online confidential survey created in Survey Monkey that will replicate the Bostick scale, which is a Likert-type scale.

The Bostick's scale will only be modified to change the words library and librarian to archives and archivist so not to confuse the participants. The modification of Bostick's scale will be tested on a small group from a local historical society but it is not expected to change the validity, which is detailed in Appendix C. Additionally, Bostick's scale showed "good internal consistency and construct validity" (Van Kampen, 2004, p 34) when looking a barriers in the library for graduate students. Graduate students are expected to be highly competent researchers working under deadlines to create a product, making them similar to the lawyers, journalists, and genealogists who use NARA's Seattle office on a regular basis. The data from the Bostick scale will answer the research questions: What levels of confidence or anxiety do archive users have toward the archives? Do they experience anxiety related the archival facilities or the archivists offering reference services?

The second instrument, a semantic differential scale survey that will be designed by this researcher and tested on a small group of volunteers gleaned from a local historical society and/or the Washington State Bar Association, will be administered simultaneously. The second instrument will also gather basic information, such as how far the researchers travel to use the archives, frequency of use, researchers' professions/avocations and years of experience in those professions, and perceptions on the difficulty level to obtain the information they seek in the archives, whether they must meet deadlines with the research, and their attitudes toward archival

reference services. This data will answer the research question: Who are the users of archives and what do they think about the services?

Volunteers for the in-depth interviews will be obtained from people taking the survey who volunteered or via referrals. The volunteers' identity will be kept confidential. Each participant will undergo no more than two interviews lasting from a half to an hour long over the course of the next nine months. The interviews will be set up at the participants' convenience and scheduled after the participant has reached the third or fourth stages of by Khulthau's six-step model (2004) of the information search process. The steps in Khulthau's model (2004) are task initiation, topic selection, pre-focus exploration, focus formulation, information collection, and search closure. Ideally, the first interview with each participant would occur after the completion of the third or fourth stages, pre-focus exploration and focus formation, respectively. The second interview or the first and only will occur after the sixth stage or search closure. The researcher expects that the participants' emotions and actions taken at the mid-way point of the research process will be considerably different than those at the end of the process. This level of interviews is important to describing the emotions experienced by the participants at different stages in the research process. Additionally, it is possible that skill and experience level of a researcher could impact the action decisions he or she makes or the emotions experienced. Data from Khulthau's questionnaire and the interviews will help answer the research question: What emotions, actions, and thoughts do archival users experience when conducting research in the archives?

Instruments

The data for this study will be obtained through three instruments and in-depth interviews. The first two instruments will be administered concurrently.

The first instrument that used will be the Bostick's (1992) Library Anxiety Scale (Appendix C) (Bostick as cited by Nahl & Balal, 2007). The study is a quantitative measure used to determine the level of library anxiety experienced by library patrons. The people taking the survey respond to 42 statements, choosing one of five responses: no anxiety, low anxiety, mild anxiety, moderate anxiety, and severe anxiety in response to statements about (1) barriers with staff, (2) affective barriers, (3) comfort with the library, (4) knowledge of the library, and (5) mechanical barriers (Nahl & Bilal, 2007). Coding the responses to the Bostick's scale is similar the coding of to a Likert-type scale. The professional literature indicates that the Bostick anxiety scale is relatively reliable for this limited purpose. Not using the Library Anxiety Scale, would leave a gap in this study (Van Kampen, 2004).

The second instrument, a semantic differential scale survey, will also gather information, such as how far the researchers travel to use the archives, how many times they have used the archives in the past year and the past five years, researchers' professions/avocations and years of experience in those professions, and their perceptions on the difficulty level to obtain the information they seek in the archives, where they are in their searches, and their attitudes toward archival reference services. The validity of this instrument is yet unknown.

The data from both first two instruments -- the Bostick's (1992) Library Anxiety Scale and the survey created by this researcher -- will be analyzed prior to starting the qualitative aspect of this study. That's because the findings from the two surveys could guide the in-depth interviews.

For the qualitative aspect of this study, nine-question Kuhlthau's questionnaire (Appendix A) will be administered to each volunteer participant prior to the start of each interview. The responses to Kuhlthau's questionnaire will be coded, using her coding in the chart

in Appendix B. The coding will be entered in a spreadsheet program, such as Microsoft Excel.

As stated above, up to two in-depth interviews ranging from a half hour to an hour will be conducted over the course of the next nine months with five to ten volunteers who have researched in the archives. Ideally interviews would occur after the completion of the third or fourth stages (pre-focus exploration and focus formation) and the sixth (search closure).

The recordings of the interviews and researcher's notes will be transcribed and coded and analyzed in NVivo. NVivo is relatively easy to use, and the program also codes the transcriptions in the text documents so it is effortless for researchers to double check the coding (Welsh, 2002). NVivo's searching tools allow for a deeper data investigation on some levels. However, the use of synonyms, jargon, or slang by participants can affect the NVivo's usability of the software (Welsh, 2002). To combat that problem, some hand checking of the NVivo coding will be conducted.

Institutional Review Board

Permission to conduct this research will be sought through Emporia State University's Institutional Review Board for Treatment of Human Subjects. Additionally, it is expected that the National Archives and Records Administration would review this proposal to ensure that archives users will be treated in accordance with agency policy, as well as ethically.

Summary

Using the data obtained from Library Anxiety Scale, the survey created by the researcher, and the NVivo analysis of the interviews, this study will provide a snapshot of the information seekers at the national archives level of anxiety toward the archives, a sense of who the researchers are that could be used to describe other savvy researchers in the Northwest, and an in-depth understanding of at least five researchers information seeking behaviors, actions,

thoughts, and feelings.

In addition to providing a direction for future research, this study will offer insight into ways that archivists could facilitate archival research conducted by more experienced researchers. This is important because some research indicates finding aids may not meet the needs of archival users. A significant portion of users do not use or have trouble using the existing archival references, such as finding aids, (Freeman, 1989; Duff & Johnson, 2003). More research is needed to determine whether these previous discoveries are representative of archival users in general and archival users in the 21st Century.

References

- American Library Association Office for Research & Statistics. (2010, March 4). A perfect storm brewing: Budget cuts threaten public library services at time of increased demand. Issue Brief. Retrieved from:
<http://www.ala.org/ala/research/initiatives/plftas/issuesbriefs/index.cfm>
- Baldwin, N. S., (1996). The information-seeking behavior of securities analysts. (Unpublished doctoral dissertation). Columbia University, N.Y.
- Case, D. O. (2007). *Looking for information: a survey of research on information seeking, needs, and behavior*. 2nd ed. Wagon Lane, Bringley, UK: Emerald Group Publishing Limited.
- Conway, P. (1994). *Partners in research: improving access to the nation's archive*. Pittsburgh: Archives & Museum Informatics
- Dervin, B., Foreman-Wernet, L., & Lauterbach, E., eds. (2003). *Sense-Making Methodology Reader: Selected Writings of Brenda Dervin, (Communication Alternatives)*. Cresskill, NJ: Hampton Press, Inc.
- Dewdney, P. & Ross, C. S. (1994). Flying a light aircraft: reference service evaluation from a user's viewpoint. *Reference Quarterly* 34 (2), 217-30.
- Duff, W. M. & Johnson, C. A. (2001). A virtual expression of need: an analysis of e-mail reference questions. *American Archivist* 64:1 pp 43-60.
- Duff, W. M. & Johnson, C. A. (2003). Where Is the List with All the Names? Information-Seeking Behavior of Genealogists. *American Archivist* 66:1, pp 79-95.
- Duff, W. M., Dryden, J., Limkilde, C., Cherry, J., & Bogomazova, E. (2008). Archivists' views of user-based evaluation: benefits, barriers, and requirements. *American Archivist*, 71:1, p 144-166

- Freeman, E. T. (1984). In the eye of the beholder: archives administration from the user's point of view. *American Archivist*, (47)2
- Gay, L. R., Mills, G. E., Airasian, P. (2009). *Educational research: competencies for analysis and applications*. Upper Saddle River, NJ: Pearson Education, Inc.
- Head, A. J. & Eisenberg, M. B. (2009). What today's college students say about conducting research in the Digital Age. Project Information Literacy progress report February 4, 2009. [Web site]. Retrieved from:
http://projectinfolit.org/pdfs/PIL_ProgressReport_2_2009.pdf
- Gilliland-Swetland, L. J. (1991). The provenance of a profession: the permanence of the public archives and historical manuscripts traditions in American archival history. *American Archivist* 54:2 pp 160-75. In Jimerson, R. C. (2000). *American archival studies: readings in theory and practice*. (pp. 123-141). Chicago, IL: Society of American Archivists.
- Greer, R. C., Grover, R. J., & Fowler, S. G. (2007). *Introduction to the library and information professions*. Westport, Connecticut, USA: Libraries Unlimited.
- Hunter, G. S. (2003). *Developing and maintaining practical archives: a how-to-do-it manual*, 2nd ed. New York, NY: Neal-Schuman.
- Kuhlthau, C. C. (2004). *Seeking meaning: A process approach to library and information services*. 2nd ed. Westport, CN: Libraries Unlimited.
- Nahl, D. & Bilal, D, eds. (2007). *Information and emotion: the emergent affective paradigm in information behavior research and theory*. Medford, N.J.: Information Today, Inc.
- O'Connor, B. C., Copeland, J. H., and Kearns, J. L. (2003). *Hunting and gathering on the information savanna: conversations on modeling human search abilities*. Lanham, Md.:

Scarecrow Press.

- Panitch, J. (1996). Liberty, equality, posterity?: some archival lessons from the case of the French Revolution. *American Archivist* 59:1 pp 30-47. In Jimerson, Randall C. (2000). *American archival studies: readings in theory and practice*. (pp. 101-122). Chicago, IL: Society of American Archivists.
- Pogrebin, R (2009, January 25). Arts Leaders Urge Role for Culture in Economic Recovery. New York Times. Retrieved from http://www.nytimes.com/2009/01/26/arts/26nea.html?_r=1&ref=national_endowment_fo_r_the_arts
- Prom, C. J. (2004). User with electronic finding aids in a controlled setting. *American Archivist* 67:2, p 234-268.
- Rubin, R. E. (2004). *Foundations of library and information science*. 2nd ed. William Street, New York, New York, USA: Neal-Schuman.
- Van Kampen, D. J. (2004). Development and validation of the multidimensional library anxiety scale. *College and Research Libraries*, January. Retrieved from <http://crl.acrl.org/content/65/1/28.full.pdf>
- Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17). Retrieved from: <http://pareonline.net/getvn.asp?v=7&n=17>
- Wakeham, M. (1992). *The information needs and information seeking behavior of nurses*. London, England: British Library Research and Development Department.
- Welsh, E. (2002). Dealing with data: Using NVivo in the qualitative data analysis process. *Forum: Qualitative Social Research*. (3)2, May, article 26. Retrieved from: <http://www.qualitative-research.net/index.php/fqs/article/viewArticle/865/1880>

Wilson, T. D. (1999). Models in information behavior research. *Journal of Documentation*, 55
(3), 249-270.

APPENDICES

APPENDIX A: Carol Collier Kuhlthau's questionnaire

60 4—Verification of the Model of the Information Search Process

Date _____ Number _____

INITIATION

1. What are you looking for?
2. Describe the topic in a short paragraph.
3. What is the title of your project?
4. Whom have you talked to about your project?
5. On the scale below indicate your confidence level at this point in the project.

	1	2	3	4	5	6	7	8	9	10
	Low									High

6. From the adjectives below, check those that describe how you feel at this point in the project.

<input type="checkbox"/> Confident	<input type="checkbox"/> Confused	<input type="checkbox"/> Disappointed	<input type="checkbox"/> Doubtful
<input type="checkbox"/> Frustrated	<input type="checkbox"/> Optimistic	<input type="checkbox"/> Relieved	<input type="checkbox"/> Satisfied
<input type="checkbox"/> Sure	<input type="checkbox"/> Uncertain		
<input type="checkbox"/> Other _____			
7. What is your task now? Please check one box.
 - To gather information pertaining to the specific topic.
 - To investigate information on the general topic.
 - To complete the information search.
 - To recognize an information need.
 - To formulate a specific topic.
 - To identify the general topic.
 - Other _____
8. What are you doing now? Check as many boxes as apply to you.

<input type="checkbox"/> Discussing the topic.	<input type="checkbox"/> Making a comprehensive search of the library.
<input type="checkbox"/> Browsing in the library.	<input type="checkbox"/> Outlining to organize information.
<input type="checkbox"/> Reading over notes for themes.	<input type="checkbox"/> Making a preliminary search of the library.
<input type="checkbox"/> Confering with people who know about the topic.	<input type="checkbox"/> Asking the librarian questions.
<input type="checkbox"/> Talking about themes and ideas.	<input type="checkbox"/> Making a summary search of the library.
<input type="checkbox"/> Skimming and scanning sources of information.	<input type="checkbox"/> Writing about themes and ideas.
<input type="checkbox"/> Reading about the topic.	<input type="checkbox"/> Taking detailed notes on facts and ideas.
<input type="checkbox"/> Taking brief notes of facts and ideas.	<input type="checkbox"/> Recording bibliographic citations.
<input type="checkbox"/> Rechecking sources for information initially overlooked	
<input type="checkbox"/> Other _____	
9. What are you thinking now? Check as many boxes as apply to you.
 - Organizing ideas and information.
 - Identifying possible alternative topics.
 - Becoming informed about the general topic.
 - Exhausting all possible sources of information.
 - Considering alternative topics in light of the information available to me.
 - Choosing the broad topic that has the potential for success.
 - Comprehending the task before me.
 - Recognizing ways to draw the project to a close.
 - Considering alternative topics in light of the time I have to complete the project.
 - Choosing specific concentrations within the general topic.
 - Considering alternative topics in light of the requirements of the project.
 - Confronting the inconsistency and incompatibility in the information encountered.
 - Getting more interested and involved in ideas.
 - Defining and extending my specific topic.
 - Gaining a sense of direction and clarity.
 - Recalling a previous project when I searched for information.
 - Predicting success of each possible concentration.
 - Identifying several possible areas of concentration in the broad topic.
 - Considering alternative topics in light of the things that are of personal interest to me.
 - Seeking information about my specific area of concentration.
 - Other _____

Figure 4.2. Process Survey.

(Kuhlthau, 2004, p 60).

APPENDIX B: Carol Collier Kuhlthau's Process Survey Coding

-
- Q1. What are you looking for?
- 1 = General information (Background)
 - 2 = Specific information (Relevant)
 - 3 = Pertinent information (Focused)
- Q2. Describe topic in a short paragraph.
- 1 = General topic
 - 2 = Narrowed topic
 - 3 = Focused point of view
- Q3. What is the title of your project?
- 1 = Vague concise expression
 - 2 = Clearer concise expression
 - 3 = Compromised concise expression
- Q4. Whom have you talked to about your project?
- 1 = Other (Friend, family member)
 - 2 = Peer (Person also doing project)
 - 3 = Expert (Person who knows about topic)
 - 4 = Professional (Person who knows about sources)
-

(Kuhlthau, 2004, p 60).

APPENDIX C: Sharon Lee Bostick's Library Anxiety Scale

Dimension	Definition	Reliability
Barriers with staff	Believes that librarians are threatening, unapproachable, too busy with duties to help students	.91
Affective barriers	Feels inadequate or inept in attempting library tasks, which are exacerbated by assuming that other people are more proficient	.86
Comfort with the library	Perceives the library as comfortable, welcoming, security, safe, and non-threatening place	.75
Knowledge of the library	Degree to which students believe they are familiar with the library	.60
Mechanical barriers	Discomfort stemming from using library equipment, including computers, printers, and photocopiers	.72

Sharon Lee Bostick's 1992 Library Anxiety Scale (as cited by Nahal & Bilal, 2007, p 237).