COMPETENCY DEVELOPMENT FOR PUBLIC LIBRARY DIRECTORS

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ABSTRACT

MARY WILKINS JORDAN: Competency Development for Public Library Directors
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The purpose of this study is to develop a set of competencies for public library directors, which can help them to successfully lead their libraries. The research objectives for this study were:

- to identify in the literature and report desired competencies for library manager/leaders drawn from the literature;

- to validate the competencies found in the literature through the opinions of current library manager/leaders; and,

- to refine the competencies found in the literature through the opinions of current public library directors.

In this study to develop competencies for public library directors, a content analysis of the literature was done to find the important ideas in the literature. Then a Delphi method was used to refine that set from the literature to establish a final set of competencies important over the next decade. No one will develop perfect mastery of all nineteen competencies – or on all of any competency set. But the important thing is that standards are established to guide directors, to give them the best chance to be successful – for themselves and for their libraries. The final set of nineteen research-informed competencies should help them achieve professional success, and help their libraries to be as strong as possible in serving their communities.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF CHARTS

CHAPTER ONE

INTRODUCTION

Public libraries play an important role in their communities and are being asked to meet community needs in new ways, including assisting with community education, addressing literacy issues, bridging the digital divide, and providing a place for all community members to gather. As McCook (2004, p. 75) has noted, "Librarians have worked hard to establish the public library as an essential community service, sought local, state, and federal funds to implement and expand public library services, and defined and articulated an ethos that defends the ideals of free inquiry". But with the pressures of changing demands and shrinking resources, the need is increasing for skilled library directors to run libraries that can continue to be successful in the future and to cope with a threatened present.

Many library and information (LIS) professionals are concerned about the shortage of experienced librarians as their rate of retirement increases (Cross, 2005, p. 193). A simple demographic overview demonstrates the potential problem: the Baby Boomer generation (born between 1946 and 1960), currently hold most of the upper-level leadership positions in public libraries, outnumbering significantly the next group of leaders, the Generation X librarians (born between 1961 and 1981). When they leave, they will take important professional and organizational knowledge with them. If the next generation of librarians is not trained to address the challenges of leadership, it will be unable to help libraries as they struggle to succeed and survive. A clearly defined set of competencies will give them a foundation they can use, in combination with other experience and training, to help them respond effectively to the pressures faced by libraries as needs change and resources shrink.

The current leaders in public libraries need to be prepared to help the next generation of directors to be as successful as possible. It is important that they are given the tools to help them succeed, but it is also important that opportunities that will help upcoming directors are defined. As Cross (2005, p. 193) puts it, "The problem is not only attracting people to the field, but also finding avenues for individuals to gain the skills and experience necessary to become tomorrow's library administrators". It is not enough for librarians who are, potentially, candidates for administrative positions to merely be present as things are happening and decisions are made around them; they need to be introduced systematically to the skills of leadership with a set of definite goals. Public libraries themselves will need to be more active in developing new library leaders, a need identified by Sager (1999, p. 91) thirteen years ago that was as pressing then as it is now. Without a generally accepted set of competencies, they are rudderless in this process, left to hand down leadership training haphazardly.

The LIS profession has not ignored the issue of the leadership shortage. Several local, state, and national library organizations have begun to address the training of future public library leaders and directors through organized training programs. However, many of these programs have not been sustained, due to budget cuts or lack of leadership follow-through. Most of the programs neither make the details of any of the goals they set for leadership competency development available nor provide any information about the effectiveness of their training. Information about these programs generally comes from satisfied graduates of the programs and may not represent a full picture of the training process. There are no published assessments of success in training and the profession has not entered into any long-term investigation into how to ensure its next generation of leaders is being adequately prepared for success. Without a well-developed set of competencies for directors to use as goals in their development, the training provided at present is merely a stop-gap process While it is

acknowledged that some leaders are getting the training and support they need and are emerging from programs ready to face the demands of public library management, it can be said that without a set of competencies to use as goals and benchmarks, there is no way of confirming that this is the case or of measuring progress in and effectiveness of public library leadership training. Development of competencies – specific knowledge, skills, and abilities – that arise from the evidence of research will help individual librarians wanting to develop their leadership skills, as well as helping the profession itself to provide the best possible preparation for library directors.

Problem Statement

As the speed of change in society seems to be constantly increasing, public libraries need to keep pace with change to serve their communities as effectively as possible. New technologies, new services, new demands all combine to make the job of a library director more complicated than it was a generation, or even five or ten years, ago. To continue to not only keep pace with the speed of change in technologies and services, but also to get out ahead of change and ensure that public libraries continue to be valued in their communities, public libraries need good manager/leaders. Public libraries in too many communities are in danger of losing staff, resources and hours, or of closing entirely. They need capable and competent directors, if they are to meet the current challenges and to sustain them into the future.

But, what makes a good director? How does a librarian know she has the competencies needed to be an effective manager/leader? How does the library board or community know what to look for in a director? What should the library profession look for in their rising managers? There are not clear answers to these questions right now. A review of library literature in this study reveals over 300 competencies that have been variously identified as

necessary for library directors. Without a consensus on which of these competencies are the most crucial, it will be impossible for current managers to develop opportunities for upcoming leaders through which they can learn the skills and qualities they need to be effective. The development of a set of research-informed competencies will give answers to these questions and provide a foundation for developing other research-informed ideas to assist manager/leaders in libraries. This study will develop a set of research-informed competencies for public library directors

Purpose and Research Objectives

The purpose of this study was to develop a set of competencies for public library directors, which can help them to successfully lead their libraries. The competencies mentioned in the literature, used in previous training or developed as informal lists by members of the profession are pieces of a puzzle that need to be assembled to give a clear picture of the ideas being advanced by the profession. Disparate opinions on the knowledge, skills, abilities and other less easily measured personal attributes necessary for library directors to learn need to be brought together and examined systematically. Using those ideas as a basis, the competency set developed in this study will be further refined by current public library directors in successful libraries, thus helping to ensure that the most important competencies identified from the literature of the profession are confirmed and enhanced by the people who actually carry out these tasks of leadership and management in public libraries.

The research objectives for this study were:

- to identify in the literature and report desired competencies for library manager/leaders drawn from the literature;

- to validate the competencies found in the literature through the opinions of current library manager/leaders; and,

- to refine the competencies found in the literature through the opinions of current public library directors.

The research-based development of competencies for public library directors will provide a foundation for those who wish to build up their own skills as they move toward director jobs and will give libraries and professional organizations a useful set of competencies for use in developing training programs, which will ensure they are helping grow and develop those who will be moving up leadership ranks. It also provides a foundation for future research. Good directors are very important for ensuring the success of their libraries, but they do not function alone; other leaders and managers, with or without qualifications or titles, also contribute to the success. Their contributions should also be analyzed and methods developed for their competency development through research that extends the scope of the set of competencies developed in this study.

Definition of Terms

For the purpose of this study, the following definitions will be used:

Competencies: LIS authors often use the term competency in a casual way, without clear definition, but apparently meaning almost any idea that can be used to identify something important about the position they are describing. Consequently, some ideas of what competencies are that have been derived from the literature review may not fit a classic definition of competency. However, in the interests of inclusiveness and gathering as many ideas as possible for this initial foundation study, everything mentioned by LIS authors as important

for leaders will be considered to ensure that important ideas are not overlooked. Later studies may want to build on this study by focusing on a stricter definition of competency.

For the purposes of this research study, competencies will be understood to be knowledge, skills, and abilities that can be taught and evaluated (Dole, Hurych & Liebst, 2005, p. 125), but will also expand to include less easily measured attainments important for a manager/leader in public libraries. Improvement may exist on a sliding scale and an individual may never achieve perfection, but the possibility and awareness of and progress toward an ideal will be sufficient for a concept to be included in this study and called a competency.

Manager/leader: Warren Bennis (1991) has said the difference between leaders and managers is that managers do things right and leaders do the right thing. However, when looking at the needs of public library directors, the distinction between these two concepts is necessarily blurred. The best directors combine the skills traditionally associated with managers and with leaders, and this study is aimed at producing a set of competencies for use in helping to create successful directors. In this project, the term manager/leader will be used to describe people who exhibit the skills associated with both "doing things right" and "doing the right thing."

Assumptions and Limitations

The underlying assumption of this study is that a set of competencies, useful to current and future public library directors, can be developed from ideas expressed in the literature and gathered from current directors. It is assumed that using the ideas and experiences of members of the profession to build research-informed competencies will provide a foundation for training for future directors.

Competency identification for public library directors is an issue that will need to be revisited repeatedly, to ensure public libraries employ the best people to serve as directors. The

competencies developed in this research study will not be immutable. However, devising a method to identify important competencies will give aspiring and new manager/leaders a set of specific goals to strive for in their own professional development and will give library institutions a set of competencies for use in recruiting, hiring and training. While a set of competencies may not stand for all time, developing that first set with a firm basis in research is an important step toward building skills for successful public library directors. Future research can build on the ideas presented here.

The benefit of looking at the past, through the literature and the views of current public library directors, could be questioned as a basis for developing competencies for the future. But this is the body of knowledge, and the collection of our ideas, as expressed in the words of members of the profession. Building a definition of the competencies necessary for the future should start with a clear understanding of the ideas already presented as important to the profession. Future research into the subject can look to other bases for development of competencies, to ensure the most complete view for public library directors and for the profession as a whole.

Significance

Leadership development is critical, not only in LIS, but also across professions. Many training programs for library leaders at all levels have been advanced by libraries, library systems and national organizations. These include: Library Leadership Institute at Snowbird (Salt Lake City Public Library), Pacific Northwest Library Association Institute, Synergy: The Illinois Library Leadership Initiative (Illinois State Library), ACRL/Harvard Leadership Institute For Academic Librarians, Mountain Plains Library Association Leadership Institute, Library

Leadership Massachusetts (Massachusetts Board of Library Commissioners), and The Emerging Leaders Program (American Library Association).

However, there has not been a formal set of research-informed goals and standards advanced for any of these programs, nor has the effectiveness of the programs been evaluated. Without a definite set of goals at the outset of any kind of training program, the success or failure of the program cannot be evaluated. Therefore, we have no real evidence of a positive contribution to the profession by any of these programs, and we have no basis on which to begin building the development of our directors.

This research study will develop that first set of competencies for public library directors, based on information derived from literature and current professionals. It is hoped that additional research will be conducted to continue to hone in on the competencies most significant and most useful for directors and for other leaders in libraries. The development of manager/leaders in the library world is too important to be left to chance. Using a research-informed set of competencies as a foundation should help in the development of training opportunities for librarians who wish to be successful in their positions.

CHAPTER TWO

LITERATURE REVIEW

This section will examine the literature on competencies from two directions. The first is a review of ideas on leadership from the LIS literature and literature from other professions, sharing ideas on competencies important for manager/leaders. The second is a review of the leadership training programs offered by the library profession, to see what ideas they are already providing to librarians interested in leadership positions.

Brief Review of Leadership Theories

To provide a more complete understanding of the ideas about what is needed for the development of good leaders, the theories of leadership in the last century will help provide a good background of material. While this review is not comprehensive, it should provide adequate coverage of the different theories advanced for good leadership.

One of the first formal schools of thought on management in the United States was Scientific Management, which focuses on discovering the best way to do a job, on increasing worker efficiency, and on defining the best way to do a task. Frederick Taylor was the first theorist in this area, publishing *The Principles of Scientific Management* in 1911. In this work he focused on figuring out the best ways to increase worker productivity through standardization of procedure. Frank and Lillian Gilbreth followed in this school, focusing their efforts on motion studies, working to create action with the minimum amount of motion and the most efficiency. In their account of family life in the first two decades of the twentieth century, first published in 1948, *Cheaper by the Dozen,* one of the Gilbreths' sons and one of their daughters write of the

procedures their parents used to develop their method and describe how the Gilbreths practiced their efficiency and motion studies on their twelve children. Also in this theoretical school is Henry Gantt, who is best known for his scheduling charts (Gantt charts) which allow tasks to be seen and planned out in a graphic way so users can see both tasks and the timeframe for completion. He also focused on efficiency, looking to managers to improve the performance and environment of the staff to ensure the best performance. This kind of management strategy is still seen today in different organizations or, at least, in tasks within an organization. For example, it is not uncommon in libraries for the circulation staff to develop a best practice set of procedures to ensure that everyone does the same tasks in the same way every time.

The Administrative School of management and leadership theories was the next to develop to help managers to be successful. Frenchman Henri Fayol developed six primary functions of management, promulgating them in 1918, still in use by many in management training today: forecasting, planning, organizing, commanding, coordinating, controlling. He also developed his fourteen principles of management – his attempt at a competency list – which included discipline, order, equity, initiative, and esprit de corps (Brodie, 1967). Mary Parker Follett was a Boston-based theoretician in this school, who focused on the holistic aspect of an organization and on the need to build reciprocal relationships between managers and staff during the 1910s and 1920s. This Administrative School represents a step closer to the management ideas used by many managers today. The focus on identifying tasks that managers can do to help staff is important, and is a shift in attitude from the more rule-bound Scientific managers.

In the 1920s and 30s, the Human Relations School of thought rose to prominence. Chester Barnard wrote *Functions of the Executive* in 1938, in which he outlined his ideas on organization and the functions that managers and leaders should carry out in the workplace. His

top three functions were: to establish and maintain an effective communication system; to hire and retain effective personnel; and to motivate those personnel. The perspective of managers and leaders as taskmasters is by now really shifting from that of Scientific Management proponents to focus more on looking at staff as individuals and on the need to work with them as individuals to accomplish the strategic goals of the organization. Some of the specific incentives he suggested to help improve staff performance were:

- Money and other material inducements;

- Personal non-material opportunities for distinction;

- Desirable physical conditions of work; and

- Ideal benefactions, such as pride of workmanship, etc.

These are all ideas that are used in workplaces today, as managers struggle to motivate staff to keep working and to produce high-quality products. It is a manager's job to make people work, but there are many ways to carry out that job, as these different theories illustrate. While there may not be a single approach to being a good manager/leader, looking at different methods others have tried can help managers reflect on their own skills.

Some of the theories of good management and leadership that have arisen in more recent years include:

- Contingency Theory. In his 1967 book *A Theory of Leadership Effectiveness*, Fred Fiedler theorized there was no one best way to manage and that, instead, leaders need to look at each situation (situational favorableness) and fit their leadership style to suit the circumstances of the situation.

- Total Quality Management (TQM), which focuses on building quality in the workplace by understanding and defining quality, and then building up procedures and assessments to ensure it is achieved. This theoretical model of leadership, which emerged in the mid-

1980s, requires leaders to be constantly watching the organization and the products (or services) to ensure the best definitions are created and the best assessments are carried out. This model encourages manager/leaders to have their employees develop the skills necessary to meet the quality standards (Oakland, 2003).

- Theories X and Y. Douglas McGregor wrote *The Human Side of Enterprise* in 1960 to lay out two different kinds of workers. Theory X says that employees are naturally lazy and need to be constantly prodded to work, requiring a lot of hands-on intervention from the manager. In Theory Y, employees are presumed to want to work and to be interested in being successful, and that managers only need to help bring out the inner self-motivation of their employees. Each style of manager can be useful in bringing out the best work from different types of workers.

- Theory Z. William Ouchi wrote the book *Theory Z: How American Business Can Meet the Japanese Challenge* in 1981, when Japanese businesses were booming and American industry was declining. He based his theories on ideas he saw in Japanese businesses, in particular that workers want to have close relationships with people at work, that social/family-style aspects of an organization are as important (or more so) than the work people are doing, and that managers need to be responsible for the well-being of staff. In the application of this theory, managers would function both as facilitators of work and as pseudo heads of a family.

There have been many books on managing and leading organizations and people, some of which are more scholarly than others and some are more pop psychology than anything useful to a manager/leader wishing to develop competencies to meet the needs of libraries or other organizations. Among popular management and leadership books in recent years are:

- *Fish! A Remarkable Way to Boost Morale and Improve Results* (Lundin, Paul & Christensen, 2000)

- *The One Minute Manager* (Blanchard & Johnson, 1982)

- *Our Iceberg Is Melting: Changing and Succeeding Under Any Conditions* (Kotter & Rathgeber, 2006)

- *First, Break All the Rules: What the World's Greatest Managers Do Differently* (Buckingham & Coffman, 1999)

- *Good to Great: Why Some Companies Make the Leap... and Others Don't* (Collins, 2001)

- *The 7 Habits of Highly Effective People* (Covey, 2004)

- *Who Moved My Cheese?: An Amazing Way to Deal with Change in Your Work and in Your Life* (Johnson, 1998).

None of these titles provide what is needed specifically by managers and those with leadership aspirations in libraries. The next section moves beyond the foundations of general management theory to consider literature more specifically focused on libraries and the leadership ideas and competencies needed to run them effectively

Library Leadership Competencies

Just what can be considered a competency differs from author to author. The language used in Dole, Hurych, and Liebst's definition seems to be very common in discussion of competencies: "competencies are skills and knowledge that can be learned and can be measured" (2005, p. 125). Although this definition might exclude a number of things referred to as competencies in the literature, it gives clarity to the process of competency development – if something cannot be learned it is not helpful, and if it cannot be measured it cannot be evaluated and is consequently not helpful to the process of training. Osa (2003, p. 37) defines

competencies as "the combination of knowledge, skills, and abilities which are relevant to a particular job position and which, when acquired, allow a person to perform a task or function at a high level of proficiency". Again, the idea of improving these task or function performances plays a key role in defining what is a competency and what is not.

This is specifically different from traits as discussed in older leadership literature, in which trait would be something that is inherent in an individual – it is either present or not and is not something that can be improved on with training. In some of the literature, the concepts of personal skill and personal trait are fused, and the idea of looking at competencies is discarded as foolish (Suwannarat, 1994, p. 20). Older literature looking at leadership traits often measured things like height, gender, weight, health, or personal appearance, and considered them important for leaders. These may or may not be relevant for manager/leaders, but they do not provide useful information in the context of competencies, either because no training or improvement can be provided for developing these traits – for example, it is not possible to train someone to be taller – or because they are not applicable to our understanding of what constitutes a good leader.

While it may be difficult to create one standard list that will detail the competencies required to become a successful director, it does not mean the profession can ignore the need to struggle toward this ideal. As Helmick and Swigger (2006, p. 62) have noted, "Librarians have listed, debated, revised, and negotiated lists of competencies for 125 years, since the beginnings of formal education for librarianship." Comparing and contrasting the lists created by practitioners and researchers will help to discover if any consensus exists about what the competencies should be.

Not all authors make fine distinctions between competencies, traits, and the ideas they believe important to leadership success and the lack of precision in vocabulary hinders the

search for competencies. To gather a complete understanding of the diversity of views about the most important competencies for public library directors that are being discussed as significant in the profession, this section will look at materials in which the authors use the words behavior, or characteristic, as well as the word competency.

Looking broadly at these ideas gives an understanding of the views of the profession as expressed in the literature, without considering the extent to which these views can be incorporated into training. Regardless of whether or not these ideas can be defined as specific knowledge, skills, or abilities, they are the ideas currently held out as important in the literature of the profession, and, therefore, need to be examined for relevance to a set of usable competencies. Further research will be needed to update the list of competencies to be sure they continue to be as useful as possible for new and potential library directors. This process cannot end with a literature review, but a literature review provides a place to begin studying the best ideas for manager/leaders already being shared in the profession.

<u>LIS leadership competency development research</u>

There has been little research of good quality into the competencies most useful for directors in the LIS profession. Competency lists that have been derived from methodological research are, quite reasonably, preferable to those with no explanatory statement about what they include or how they were created. This makes the studies that have been completed even more valuable in any attempt to develop a standard set of useful competencies for librarians to use as they seek to improve their own skills. (The lists of leadership competencies developed by LIS researchers, and identified in the literature reviewed here, are provided in Appendix A.)

One of the most prominent studies of library leadership competencies is the research done by Arthur Young, Peter Hernon, and Ronald Powell. They were looking at current library

directors to find desirable leadership attributes in both public and academic libraries. They used multiple research methods to identify and rank ideas, to compare these ideas, and to suggest some ideas for training (Hernon, Powell & Young, 2003). They list several competencies, including credibility, multitasking, focus on change, and communication skills. They emphasize that these leadership competencies can be used by people at any level of an organization. This idea of leading from any position is a powerful one, and its leadership implications could be explored in future research (and is discussed in other literature).

They also emphasized the need for flexibility in defining competencies for library leaders: "One set of attributes does not fit all: there is room for creative packaging of leadership attributes for particular organizational expectations, which change over time" (Hernon & Powell, 2004, p. 35). This description of a Contingency Theory view of leadership is repeated by many writers, who emphasize the flexibility that manager/leaders need to show to be successful. The manager/leader competencies developed in any one study or any one situation will not be universal. However, there is sufficient overlap among the many lists of competencies already created for them to be used in an attempt to make a general list that is helpful to most directors in most situations.

As a follow-up to this study, the researchers worked with ten Generation X academic library leaders, using a Delphi study, to examine their perceptions of leadership attributes. Competencies this group regarded as important included good interpersonal skills, comfort with change, building working relationships with others, and articulating a vision that inspires others (Young, Hernon & Powell, 2006).

Winston and Dunkley (2002) researched academic library job ads, looking for competencies, which they define as position qualifications. From these ads they developed a list of the most commonly used words and phrases in job ads for library development positions.

Some of the competencies they found to be most important to hiring authorities include interpersonal skills, evidence of being a team player, vision, and flexibility. Knowing what competencies hiring authorities are looking for should help give a sense of what competencies are important for new and upcoming leaders to develop, not only to keep their skills sharp but also to be hired for director positions.

Hernon and Rossiter look at leadership in terms of emotional intelligence, a term popularized by Daniel Goleman and others in the 1990s. Their study consisted of two parts: a content analysis of job ads for academic library directors, and; a survey of current university library directors to see how they characterize competencies from the job ads in terms of emotional intelligence (Hernon & Rossiter, 2006). Many competencies were considered, with the five most important on each of four groups of emotional intelligence ideas identified. The four groups were; self-awareness, self-regulation, motivation, and empathy. Some of the more important competencies included optimism (even in the face of failure), exercise good judgment, effective at leading charge, comfortable with ambiguity, and building rapport with a wide circle of people (Hernon and Rossiter, 2006).

Helmick and Swigger carried out a study of leadership competencies for librarians, looking at those working in the western part of the United States. Although the focus of the research was not on leadership, the management-related items they discussed seem to be heavily weighted toward leadership skills, and thus appropriate for inclusion in this review. Their competencies include: build positive staff-patron relationships; respond to customer needs and demands; apply creative thinking and problem-solving skills, and; articulate the value of positive attitude (Helmick & Swigger, 2006).

Murphy (1988) looked at the leadership competencies of twelve corporate librarians. After considering several different viewpoints from these leaders, she concludes with a list of

competencies observed by these leaders to be important for successful library leadership. They include communication, persistence, empowering others, and vision. Although this study looked at special librarians in the corporate world, the results of her research seem to accord with those already reviewed and could be applicable to other types of libraries.

Ameen (2006) explored some of the educational challenges of preparing library professionals to obtain leadership positions in Pakistan. He gathered data using mixed methods: survey, content analysis and focus groups (p. 204). Several competencies were found to be important to the LIS professionals for education of new leaders in the profession, including creativity, a vision, self-confidence, and high professional morale.

LIS leadership competency lists compiled using means other than research

Many authors discuss competencies they themselves have developed to be successful as leaders; others discus those that they have seen others use successfully. Some other authors discuss ideas without giving any basis for their selection. Collecting these lists should give some perspective on the competencies felt to be important by people in the profession and should be considered in a wide-ranging content analysis. Although these lists may individually have less validity for a wider population than lists created using research, when they are considered as a group they can provide some valuable insights into the definition of successful leadership for librarians. (The lists of leadership competencies not developed by formal research processes, examined in the literature here, are provided in Appendix B.)

Schreiber and Shannon assembled a list of competencies (which they refer to as leadership traits) based on ideas they have gathered over many years of training and consulting with leaders. The competencies they identify as important include self-awareness, customer focus, and embracing change (Schreiber & Shannon, 2001, p. 46). Although they are not

18

identified explicitly in the materials made available about their training programs, it would appear that they try to incorporate these aspects of leadership into the training they provide.

Maureen Sullivan (1999) brings forward her leadership competency list in a discussion about leadership on a national level in the profession. Competencies she believes important include collaboration, persistence, and investment of time and energy (Sullivan, 1999, p. 141). In their discussion of the urban library council training program, Nicely and Dempsey (2005) discuss the effects the program has had on the mentee sponsored in their own library. Competencies they see as developing as a result of this program include confidence, decisiveness, and savvy at building networks (Nicely & Dempsey, 2005, p. 297).

Hernon and Schwartz (2006) discussed a Ph.D. program introduced recently at Simmons College focusing on leadership in libraries. One of the outcomes they hope their graduates will attain is mastery of the area of leadership, which they define using some competencies such as demonstrating teambuilding skills, functioning effectively in a political environment, self-awareness, and showing reasonable risk-taking skills (Hernon & Schwartz, 2006, p. 2).

Riggs (1997) discusses leadership in academic libraries. Writing about leadership, he discusses change in vision for leaders: "Transformational leaders have to be excellent strategists, strong planners, synthesizers, change agents, and visionaries. No one leader will have all these attributes" (Riggs, 1997, p.4). Again, the Contingency Theory is evident in this expression of the need to use different skills at different times. Weiner (2003) also looked at academic libraries and the challenges in leading them; she completed a literature review looking at the leadership styles of university librarians and library directors. Competencies she identified as significant included power, diversity issues, and boldness (Weiner, 2003, p. 9).

Three authors considered the competencies required for leaders in academic library reference departments. Unaeze (2003) developed a set of leadership competencies for academic

librarians, focusing on competencies appropriate for the head of a reference department, as opposed to the library director. Although he does not attempt to generalize these to a director position, it is not much of a stretch to apply leadership competencies identified for leaders of reference departments to library directors' positions. Competencies he regards as significant include time management, courage, decisiveness, enthusiasm, and honesty. Osa (2003) also developed a set of competencies for leaders of reference departments of academic libraries. His competencies include setting expectations, motivating, and creating and maintaining a positive and nurturing workplace, climate and culture. Thirdly, Howze (2003) discussed leadership competencies necessary to become a successful head of reference. His competencies include reference experience in more than one library, an understanding of service quality and how it is measured, and open and honest receptivity to cultural diversity.

Orenstein (1999) investigated leadership in a total quality management process; the competencies that emerged include communication, building trust, and emphasizing teamwork. Von Dran (2005) discussed studies, which she did not cite or identify, bringing forward other competencies, including the desire to lead, honesty, and self-confidence. She also discusses the difficulty of defining what leadership really is. She, like others, emphasizes the idea that no one list or one set of standards will be correct for every situation a director faces.

Ideas for leadership competencies are not developed by consultants and researchers alone. Moniz (2001) looks at leadership of libraries from a different perspective, comparing it to military leadership. The need to delegate responsibility and authority are emphasized. He also brings forward the idea that good leadership, though difficult to define, is recognized by employees: "People have a tendency to enjoy their work if the leadership is superior. They cherish the opportunity to work for, and learn from, excellent leaders, and dread working in an organization with poor leadership" (Moniz, 2001, p. 21). Although it may be difficult to capture

the concept of leadership in a concise definition, employees recognize leadership when they see it, and they want to work for good leaders. Providing good directors for libraries may have an additional benefit of attracting and retaining good employees to public libraries.

In public libraries, library boards are responsible for hiring new directors. The selection and hiring of a new director is an important, if not the most, task of a board (Wyrick & Brothers, 2003, p. 23). It is, therefore, extremely important for library boards to be able to articulate the competencies they are looking for in a new library director. Competencies Wyrick and Brothers believed were important in the search for library directors included finding a dynamic individual with integrity and vision.

McAbee's list (2002) focuses on the importance of the idea of the leader as the force behind not only efficient library operations, but also the motivation and organizational environment of the staff. McAbee's competencies include raising morale, handling conflict constructively, and initiating a team approach. She believes that by developing these competencies, leaders can make their staff happier and make them want to work harder for the director. Lester (1990) discusses leadership and refers to some competencies leaders can develop. They include caring, quality versus quantity, and delegation: "There is ample evidence that something so simple as caring for one's employees improves leadership effectiveness" (Lester, 1990, p. 18). The ample evidence is not cited, but may include Lester's personal experience or anecdotal evidence.

Osif (2004) reviews a series of books on leadership and defines leadership for librarians with a set of competencies, including training and courage (Osif, 2004, p. 166). Gary Deane (2005) discusses a difficult situation with the administration of his library, an experience from which he distilled several leadership competencies, including sharing the power, acting with conviction, taking responsibility, and going to the community.

21

In discussing library leadership in a school setting, Frost (2005) emphasizes the importance of training for development of good directors. Leadership will have a different focus in different kinds of libraries, and in school libraries leadership generally needs to include reminding the school community that the library exists, as well as extolling the benefits and services the library can provide students and teachers. Other important competencies noted by Frost include vision, passion, and humor.

Like many other library organizations, the American Association of Law Libraries has put renewed focus on leadership and leadership development. Holcomb discusses competencies librarians need, including leading conflict, leading change, and leading differences (Holcomb, 2005, p. 733). The Western Council of State Libraries, led by project director Catherine Helmick, assembled a set of core competencies for librarians, including a set for library managers. Included in their competency list are vision, empowerment, feedback, and personal energy (Helmick & Western Council of State Libraries, 2004, p. 12). Former ALA Executive Director Robert W. Wedgeworth discussed his view of leadership competencies in a presentation made at Rutgers School of Communication, Information and Library Science in 1988. His competencies include knowledge, power, seizing opportunities, and vision (Wedgeworth, 1989, p. 39).

Sheldon (1999) discusses an interview she did with Julie Todaro, who was at that time the incoming president of the Texas Library Association. Competencies she believes important for library leaders include: vision, successful work with groups, change, and conflict management (Sheldon, 1999, p. 142). Sheldon also discusses some of the leadership competencies she herself has learned in her career as a library leader, including decision making and articulation of vision.

Lubans (2002) discusses an interesting twist on leadership -- the idea of followership. Although he does not use this exact term, the idea has been making the rounds of the leadership literature. Being a good leader will sometimes involve following others; making this idea explicit

could help overcome any uncertainty leaders may have about relinquishing their own sense of authority. Other competencies he defines as important for a leader include being imaginative, independent thinking, and articulate.

Important competencies are not always immediately apparent. According to Winston (2001, p. 517), "Cutting-edge research into this study of diversity in the private sector has highlighted a documented connection between the investment in diversity and overall organizational success in performance". Although Winston does not cite the research he is referring to, he discusses the importance of leaders bringing diversity into a library; common sense would seem to confirm that diversity of ideas, opinions, backgrounds, and suggestions would make a library stronger, and should, therefore, be important for library directors. This would seem to be particularly true in public libraries, as these organizations need to be extremely flexible to respond to the needs of their diverse and changing communities.

"Although the world in which librarianship exists has changed radically in the last few decades, the qualities needed in new librarians are much the same as those of previous generations of the profession" (Parker-Gibson, 2003, p. 161). Parker-Gibson identifies competencies that will be useful for leaders in the future, including curiosity, a broad education, a tolerance for change, flexibility, and a sense of humor. This idea of leadership as a relatively stable set of competencies is important because there needs to be some constancy, but the changes in the environment within which libraries operate will call for constant fine-tuning of the competencies library directors will need in order to be successful.

Also looking to the future, Shoaf (2004) put together a list of library leadership competencies emphasizing the speed with which changes are occurring in libraries. They include knowing how to articulate a vision of the future, living a service ethic, and creating a culture of leadership in the library. "If the library leader can't be on the front lines, who better to have

23

there than staff operating in an environment of leadership, where they are free to interpret and respond to events rather than follow the rule book" (Shoaf, 2004, p. 365). This can be a frightening idea for some directors, but working with staff to build their own leadership competencies seems like a useful idea for leaders interested in developing staff in helping build morale.

<u>Summary</u>

Looking at competencies that members of the LIS profession hold as important, whether they have been developed from research or drawn from personal experience and observation, is a valuable first step in determining what kind of competencies will be most helpful to new and future leaders of public libraries. These ideas may or may not be suitable for inclusion in a competency-based training program, but, as the ideas expressed in the literature can be taken to represent what is important to the LIS profession, their close examination is central to the discussion of a suitable set of competencies for manager/leaders in libraries. A literature review is only the first step and allows a broad view of the profession through the accumulation of ideas put forward as important, which is a helpful beginning in determining a standard set of competencies for public library directors.

<u>Leadership Competencies in Professions other than LIS</u>

Leadership is not something entirely dependent on the profession or type of work a person is doing; the competencies required for a good leader in one profession can be similar to those needed in another profession. Hirzel (2003, p. 373) views leadership competencies as "intended to help us better understand the complexities of leadership excellence so we can improve our leadership abilities". Learning about views of leadership in other professions can

help us to understand competencies for LIS leadership. Although the focus of this project is developing competencies for public library directors, examining the competencies other professions hold as important should help give a more complete picture of leadership in general.

<u>Competency development research</u>

In other professions leadership has been investigated using more formal research methods, instead of relying on the less systematic and less organized approaches. This section will look at the different ways that competencies have been developed in a variety of fields using research methodologies, in order to see what is important for manager/leaders in those fields.

<u>Healthcare fields</u>

Strand (1981) looks at leadership competencies in the public health field in the northeast United States. The idea of leadership is important in the public health area, as practitioners are likely to face a wide variety of situations they need to handle in the course of a day. In this study, researchers in six states visited 697 community residents, urban and rural, giving them each a questionnaire, which "consisted of 39 leadership competencies which were used by community resident respondents to rate the extent to which it is important that an identified community leader uses each competency listed (the community leader was a person identified as such by the respondent)" (Strand, 1981, p. 398). The idea that leaders should have leadership competencies so they look like leaders to the public is unusual in the literature, but customers (of any sort) who perceive people as leaders may be more likely to follow them without really knowing much about them.

The characteristics identified as most important were: problem solving, demeanor, budgeting, needs assessment competencies, promoting feelings of importance in community

members, group organization and communication competencies, organizational leadership

competencies, leadership attitudes/principles, and management of change competencies.

Although it is unusual to develop competencies based on the end-recipient's perceptions of their

importance, the idea of bringing forward competencies for training that have been identified as

important is not new and is a good strategy for developing training programs.

Nowlin and Hickok (1992) looked at healthcare CEOs and developed a 360-degree

evaluation process using leadership competencies and leadership development. They used a

survey that listed the leadership competencies they had decided were important to evaluate the

leader's effectiveness. It was "designed to elicit data on 16 key leadership dimensions:

- Planning
- Motivating
- Listening
- Flexibility
- Creativity
- Organizing
- Delegating
- Leading meetings
- Conflict management
- Coaching
- Teamwork
- Time management
- Personal integrity
- Technical knowledge
- Communications (oral and written)
- Problem-solving and decision making (Nowlin & Hickok, 1992, p. 66).

Although they do not go into detail as to how these competencies were selected, they

used those competencies to look at 99 different leadership practices, each of which was related

to one of their competencies. This specific definition of each competency for a successful

manager/leader allows a stronger training and evaluation process to help develop the

competencies identified as important. Nowlin and Hickok (1992, p 67) claim that "The profiling

process offers something that is sorely lacking in many organizations – a specific vocabulary for

26

describing leadership behavior." Combining good competencies with a good evaluation process should assist leaders in any organization to develop their own skills.

In a sidebar of this article, the authors look at another set of leadership competencies developed by the 3M Health Care Leadership profile. Employees working under 81 upper and middle hospital managers were asked how important different skills were when they were working with their leaders. They were ranked as follows:

Highly important
- Integrity
- Communication skills
- Listening skills
- Problem-solving
- Motivating
- Planning

Slightly less important
- Teamwork
- Organizing
- Flexibility
- Conflict management
- Coaching
- Delegating
- Creativity

Moderately important
- Time management
- Leading meetings
- Technical knowledge (Nowlin & Hickok, 1992, p. 66).

Although the exact source of this ranking is not made clear, having yet another ranking of necessary skills, one provided by employees evaluating their supervisors, can assist leaders who are looking for ways to improve their own leadership skills. Most of these skills, particularly those ranked as highly important, are mentioned in other competency lists; the overlap of competencies would indicate their widespread importance to manager/leaders wanting to be successful.

Manager/leaders in the healthcare field face a variety of challenges similar to the public library field. The Healthcare Leadership Alliance (HLA) looked at the competencies necessary

27

for successful leadership in the field, undertaking an "extensive project to define the unique leadership competencies in health care", from which "a leadership competency directory composed of 300 specific leadership competencies within five domains of leadership" was created (What does it take to lead?, 2006, p. 78). Under each of the five domains are knowledge competencies and skill competencies.

The first of the five leadership domains is communication. The skills in this domain include building relationships and working with teams. Leadership is the second domain (although using the word "leadership" as a competency domain to help build leadership skills seems to challenge the definitions). The domain focuses on an understanding of leadership styles and techniques (What does it take to lead?, 2006, p. 79). Understanding the different ways people choose to lead can be beneficial when developing one's own individual leadership style – a use of Contingency Theory of leadership.

The third leadership domain is professionalism, which if leaders possess it makes them behave "in accordance with ethical and professional standards that include a responsibility to the patient community served, a service orientation, and a commitment to lifelong learning and improvement" (What does it take to lead?, 2006, p. 79). This one is somewhat unique in this review; it reflects the importance of professional behavior on the part of a leader, but it also discusses the need for leaders to get involved with the community they serve. No publicly supported organization can survive without the support of the public they serve, and it is the leader who is responsible for ensuring that the community not only is well-served but feels well-served. This is as true in public libraries as in healthcare.

Knowledge of the healthcare environment is the next leadership domain. Manager/leaders are responsible for keeping up with their profession and to do this they need to do such things as reading journals, writing articles, attending conferences, and networking with

peers. The final leadership domain is business knowledge and skills: "Healthcare management leaders should be able to apply basic business principles including organizational and analytical thinking, to the healthcare environment" (What does it take to lead?, 2006, p. 80). Business knowledge and skills are becoming more important for public library leaders as budgets tighten and the requirement increases for them to justify their spending to their funding communities. An understanding of where the money comes from, what happens to it in their library, and where it goes is basic knowledge for any leader who wants to be successful.

Krejci and Malin discuss leadership competencies for nurses, claiming that "From staff nurses at the point of service to nurses in expanded and management roles, nursing practice has become more complex" (Krejci & Malin, 1997, p. 235). In this changing environment, nurses, like librarians, are expected to lead regardless of the changes going on around them. They describe the application of the Leadership Competency Instrument, "a 48-item tool, developed by the researchers, to specifically measure the impact of training on 12 specific leadership competencies identified to assist nurses to be effective leaders in the present health care environment" (Krejci & Malin, 1997, p. 237). It is not clear from the article how they developed the leadership competencies they used in their training.

The competencies were:

- Effective communication
- Effective conflict resolution
- Accurate problem diagnosis
- Systems thinking
- Personal power
- Effective group dynamics
- Change agency
- Oppressed group behaviors
- Decision making/reframing
- Nursing's unique contribution to patient outcomes
- Healthcare environment
- Leadership: Influence on patient and organizational outcomes (Krejci & Malin, 1997, p. 237).

29

While some of these are only relevant to nursing and other healthcare occupations, most are typical of the leadership competencies developed by other authors, both in healthcare and in other professions. Participants were measured before and after training on both their understanding of these competencies and their ability to demonstrate these competencies. Significant differences were found after their training. Although the return rate in a follow-up three months after training was low (29%), those participants who did respond continued to show significant improvement three months after their training.

<u>Business areas</u>

Daniel (1992) discusses a leadership training development program run in Texas Instruments (TI) for their leaders. The first stage of the study of this program developed competencies and the second attempted to test those competencies in the TI leaders. The researchers used critical incident interviews as their methodology. The competencies were divided into the following groupings:

Achievement Orientation
1.   Goal orientation
2.   Bottom-line orientation
3.   Communicates and enforces standards
4.   Initiative

Skillful Use of Influence
5.   Strategic influence
6.   Communicates confidence in people
7.   Interpersonal sensitivity
8.   Develops and coaches others
9.   Gives performance feedback
10.   Collaboration and team building

Conceptual Skills
11.   Systematic problem solving

Concern for Image
12.   Image and reputation
13.   Self-confidence (Daniel, 1992, p. 62-63)

In the second study they used a questionnaire to attempt to see if high-performing leaders, selected by their supervisors, differed on any of these competencies from a random selection of managers. Daniel (1992, p. 68) reported that, "Given the combined results, it was determined that the following 7 competency dimensions represented true distinguishing competencies within the context of the present studies: a. Goal orientation, b. bottom-line orientation, c. initiative, d. collaboration and team building, e. systematic problem solving, f. image and reputation, and g. self-confidence". Distilling the essential competencies using research methodologies brings a significance to this final list of competencies that is lacking in other lists which do not detail how the competencies they find to be important were selected.

Hunt (1996) discusses leadership competencies he codifies as significant at the London Business School. Developing that list is helpful to the new leaders, to help them learn what to do in their positions. One of Hunt's persisting findings was "that those who are effective understand the political processes of leadership and quickly learn to separate or differentiate themselves from the rest. Force of character, specific knowledge or skill, and analytical ability are some of the ways leaders differentiate themselves" (Hunt, 1996, p. 81). Interestingly, he also discovered leaders are like actors and participate in what he calls the social drama. This view of leadership places emphasis on communication and learning.

However, leaders do not have to be masters of every skill, unattainable wizards set on a pedestal above the rest. From his survey Hunt identified the best leaders as "exceptional on four competencies, good at another four, and only just above average on the rest" (Hunt, 1996, p. 81). To be an effective leader does not mean a person has to be perfect, which is an interesting point for those aspiring toward manager/leader positions to consider. It perhaps not only emphasizes the importance of good training for the most important competencies but also allows for greater flexibility in the topics covered by training, since excellence in all areas is not

necessarily attainable. Additionally, leaders need to have something to overcome through the training process. In his research Hunt "found that the best leaders actually have a real flaw and far from attempting to overcome it, will make a feature of it and use it as something that humanizes themselves and shows their fallibility" (Hunt, 1996, p. 81).

Looking at the needs of successful companies, Tichy (2002) writes of the steps they take to build their leaders. He, like several others, discusses the importance of building leaders at all levels of a company – leading from every position. His list includes competencies that reflect action orientations in leaders. Tichy views the development of ideas and visions for the future as separating leaders from the other company employees.

Leaders can be distinguished in other ways. They have a strong sense of values and live up to them. It does not seem to be important what the specific values are; what is important is that leaders share these values with their organizations. Tichy identifies leaders as "not only highly energetic people themselves, but they actively work to create positive emotional energy in others" (Tichy, 2002, p. 25). Having the drive and energy to motivate staff and keep going to face the difficult tasks that leaders have to take on in their positions requires successful leaders to have a good store of personal energy.

Tichy found that good leaders can make hard decisions, and they encourage decision-making in others. Leaders do not have the luxury of looking to others to see what is going to happen; they have to be out front, making decisions, even when they are hard, and when there does not seem to be a good solution. Tichy (2002, p. 26) notes that "Winning leaders personalize their visions and ideas by telling stories that touch people's emotions as well as their intellects". Leaders need to have those visions for people to follow, so they will get excited and want to keep working toward a goal. This is particularly important in a public library, where the external

rewards may not be excessive, but the needs may be great. Encouraging people to work towards the goals of the organization is part of the job of a good manager/leader.

Brown and Posner also conducted a study looking at the relationship between leadership and learning of which the "guiding hypothesis was that individuals who are better learners are more engaged in leadership principles" (Brown & Posner, 2001, p. 276). They used standard scales to assess both leadership competencies and learning. To define competencies for leaders, they used the leadership practices inventory (LPI), which "yields five scales, each of which represents a separate set of leadership behaviors:

1.   challenging the process,
2.   inspiring a shared vision,
3.   enabling others to act,
4.   modeling the way,
5.   encouraging the heart" (Brown & Posner, 2001, p. 276-277).

The four learning tactics they measured were action, thinking, feeling and accessing and they found that "respondents who reported using more frequently any one of the four learning tactics…also reported engaging more frequently in leadership behaviors like challenging, inspiring, enabling, modeling and encouraging" (Brown & Posner, 2001, p. 278). Their research also makes the point that learning is an important part of good leadership, claiming "Importantly, creating a culture of leadership and learning is the ultimate act of leadership development" (Brown & Posner, 2001, p. 280). Leaders who continue to learn better ways to keep their skills sharp and keep advancing their own leadership abilities will be the most useful to their organizations.

Fulmer and Wagner (1999), along with the American Society for Training and Development and others, developed benchmarks for leadership competencies after working with a variety of leading organizations. Although the benchmarks they developed using best practices methodology did not involve leadership competencies directly, they did feature the

competencies developed by the Gallup Organization in years of interviews, which "identified 20 key leadership talents or 'themes' – which Gallup defines as natural predispositions or recurring patterns of thoughts, feelings, and behaviors that can be applied productively" (Fulmer & Wagner, 1999, p. 31). They are grouped into four categories with specific competencies under each.

> Direction: Relates to a leader's abilities to provide direction
> o   Vision
> o   Concept
> o   Focus
> Drive to execute: relates to motivation
> o   Ego drive
> o   Competition
> o   Achiever
> o   Courage
> o   Activator
> Relationships: relates to the capacity to develop relationships with others
> o   Relater
> o   Developer
> o   Multirelater
> o   Individualized perception
> o   Stimulator
> o   Team
> Management systems: relates to management abilities
> o   Performance orientation
> o   Discipline
> o   Responsibility and ethics
> o   Arranger
> o   Operational
> o   Strategic thinking (Fulmer & Wagner, 1999, p. 31).

The approach taken here, and in other literature reviewed here, of defining larger competencies by breaking them into smaller, more manageable pieces, would seem to lend itself well to development of effective training programs.

For many years, Kouzes and Posner (2002) have investigated leadership and the process leaders need to follow in order to succeed. As they investigated more deeply into the dynamic process of leadership, using case analyses and survey questionnaires, they "uncovered five

practices common to personal-best leadership experiences" (Kouzes & Posner, 2002, p. 13).

They refer to these as the Five Practices of Exemplary Leadership:

- Model the Way.
- Inspire a Shared Vision.
- Challenge the Process.
- Enable Others to Act.
- Encourage the Heart (Kouzes & Posner, 2002, p. 13).

They identify these competencies as the ones any leader will need to be successful, claiming that they have "stood the test of time, and our most recent research confirms that they're just as relevant today as they were when we first began our investigation over two decades ago – if not more so" (Kouzes & Posner, 2002, p. 13-14). That kind of consistency in competencies over a large span of time would seem to be important itself. Although some ideas of good leadership may change, there seem to be some basic ideas that remain useful over years. They could have positive implications for training programs, in that they might offer more stability in curriculum and more opportunity to assess and compare graduates over a longer period of time.

They have carried out extensive research into discovering what leadership competencies are identified by business and government executives as important, having "administered this questionnaire to over seventy-five thousand people around the globe," and updating "the findings continuously" (Kouzes & Posner, 2002, p. 24). People are given a list of 25 characteristics that Kouzes and Posner have previously identified as important in their research and are asked to check the seven they think are most important. The results have been very similar over the years: "Although all characteristics receive some votes, and therefore each is important to some people, what is most striking and most evident is that, consistently over time and across continents, only four have continuously received over 50 percent of the votes"

(Kouzes & Posner, 2002, p. 24). These four are: honest, forward-looking, competent, and

inspiring.

The rest of their list of characteristics of admired leaders is as follows:

- Intelligent
- Fair-minded
- Broad-minded
- Supportive
- Straightforward
- Dependable
- Cooperative
- Determined
- Imaginative
- Ambitious
- Courageous
- Caring
- Mature
- Loyal
- Self-controlled
- Independent (Kouzes & Posner, 2002, p. 25).

This list is the order given in the 2002 edition of their book; the percentages of respondents who

choose each of these characteristics that were published in the 1995 and 1987 editions are also

given and indicate that they have not changed greatly over fifteen years. This would seem to

indicate there is some validity and stability in the characteristics they are describing as important

for leaders.

Other careers

Twehous, Groves and Lengfelder (1991) looked at leadership in an unusual profession –

outdoor adventures. They were attempting to measure the success of the competencies they

identified as the most significant and did so by reviewing the literature "to identify important

competencies in the outdoor adventure field"; they also incorporated "competencies covered in

the AYH [American Youth Hostels] Leadership training course" (Twehous, Groves &

Lengfelder, 1991, p. 113). They sent questionnaires to all current leaders in the AYH, asking

them to rank the nine competencies they found in the literature, so they could identify the most important competencies. They determined the five most important ones were judgment, interpersonal relations, group dynamics, risk analysis and management, and safety skills (Twehous, Groves & Lengfelder, 1991, p. 114). Most of the competencies on this list could translate to important leadership competencies in any field (with the possible exception of "safety skills" which are not usually needed in public libraries).

Warren Bennis (1991) discusses his own leadership frustration as president of the University of Cincinnati. He looked at other leaders to see what they were doing to develop their skills and to see what made a leader successful. Based on his years of observation and discussions he developed four competencies for successful leaders, the first of which "is the management of attention through a set of intentions or a vision, not in a mystical or religious sense but in the sense of outcome, goal, or direction" (Bennis, 1991, p. 14). Vision is a leadership competency frequently mentioned by other leadership theorists. The second leadership competency he identified was management of meaning – "To make dreams apparent to others and to align people with them, leaders must communicate their vision" (Bennis, 1991, p. 14). Communication is more than just telling others things; it is a complex process of give and take in discussions and sharing of ideas. Leaders have to be able to do this with their staff to get everyone moving in the same direction – toward the vision.

Trust was the third competency, which Bennis sees as essential to all organizations, noting that its "main determinant of trust is reliability, what I call constancy" (Bennis, 1991, p. 15). His observations showed that the successful leaders were focused and constant in their actions. They did not change from day to day, and staff members and others who rely on leaders need to see that kind of reliability to develop trust that leaders really have a plan and can help everyone fulfill that plan. The fourth of Bennis's leadership competency is "management of self,

37

knowing one's skills and deploying them effectively", which is critical and "without it, leaders

and managers can do more harm than good" (Bennis, 1991, p. 15). He compares bad managers

to iatrogenic illnesses – those caused by doctors and hospitals, suggesting that "There should be

[a term] for illnesses caused by leaders, too" (Bennis, 1991, p. 15). Untrained leaders may not

understand what they are supposed to do when leading staff, and their own ignorance and

frustration can be taken out on the staff, making a bad situation even worse. Developing

adequate leadership competencies and training for all public library leaders should help to avoid

these problems while helping the leaders to be successful.

<u>Leadership competencies without professional focus</u>

Daniel Goleman is one of several to attempt to model emotional intelligence. In *Primal*

Leadership (Goleman, Boyatzis & McKee, 2002), he brought his ideas on the importance of

emotional intelligence to the leadership field. He discusses his leadership competencies in

Appendix B of this book, although he gives no details about how he developed them. They are

broken into groups, with meta-competencies defined further by supporting competencies, as

some other writers have done.

- •Self-Awareness
- o   Emotional self-awareness
- o   Accurate self-assessment
- o   Self-confidence
- •Self-Management
- o   Self-control
- o   Transparency
- o   Adaptability
- o   Achievement
- o   Initiative
- o   Optimism
- •Social awareness
- o   Empathy
- o   Organizational awareness
- o   Service
- •Relationship management

- o   Inspiration
- o   Influence
- o   Developing others
- o   Change catalyst
- o   Conflict management
- o   Teamwork and collaboration (Goleman, Boyatzis & McKee, 2002, p. 253-256).

Breaking the larger competencies of emotional intelligence into more specific, and maybe more measurable and trainable, competencies seems like an effective way of developing an entire set of competencies that can be used in training programs. Good definitions will help make competencies more widely understandable for new and developing manager/leaders.

Stephen Covey investigates the competencies of a principle-centered leader and isolates "eight discernible characteristics of people who are principle-centered leaders" (Covey, 1991, p. 24).

- •   They are continually learning
- •   They are service-oriented
- •   They radiate positive energy
- •   They believe in other people
- •   They lead balanced lives
- •   They see life as an adventure
- •   They are synergistic
- •   They exercise for self-renewal.

These competencies (he uses the word characteristics) are a little more amorphous than others, but are still things that library manager/leaders could be trained to integrate into their own leadership behaviors. Covey notes specific skills that make up each competency, giving some basis for his selection of them and a format with which to apply them in training. Like Goleman, he does not describe the exact methodology used to develop these competencies, but he does claim to have conducted a study of some sort in arriving at these competencies.

Many articles discuss the competencies they have found to be important, without detailing the research process in their development, if any was used. This does not mean these ideas are not worth considering, but it does mean that their uncertain origins may preclude them as the first choice for competencies. As discussed with LIS lists compiled with no apparent basis in research, studying the literature in a widespread analysis such as this one means that ideas that are important to many people will be uncovered, and for this reason they are considered important for this study.

Healthcare fields

The healthcare field is perhaps more similar to the library profession than is the business world. Healthcare workers and librarians are both concerned with providing assistance to people, and for both of these groups there may be no direct profit motive to encourage leaders to develop their skills. This does not diminish the need for good leaders in the slightest. Farrell and Robbins (1993) noted that the competencies needed by physician leaders vary with the needs of the organization in which they are working. Competencies they identified as important for physician leaders are:

1. Group leadership.
2. Direct persuasion.
3. Organizational awareness.
4. Initiative.
5. Relationship building.
6. Planning/organizing (Farrell & Robbins, 1993, p. 40).

All organizations undergo periods of change, and the library and healthcare fields have been no exception in that they have been transformed by technology, at the pace of change that does not look as if it will slow anytime soon, if it ever does. A leader needs to be skilled not only in shepherding an organization through periods of change, but also in getting beyond the changes.

As Farrell and Robbins (1993, p. 41) note, "In reviewing the changing role of physician leaders, the Hay Group has identified several competencies that will cause and predict superior physician leadership performance in an integrated setting", which are

- Strategic business orientation
- Empowering/developing others
- Mission articulation
- Group leadership
- Negotiation skills
- Stakeholder relationship building
- Organizational awareness

These competencies are general enough to be relevant to leaders in most types of organizations, including public libraries. Farrell and Robbins (1993, p. 41) also mention competencies that are "more important – and more difficult to spot – … relating to intellectual abilities, motives, and traits as well as self-concept, attitudes, and values." It is the process of searching for those more "difficult to spot" competencies, trying to name and measure them, which makes the sweeping review of a large body of literature so valuable.

Wright, Rowitz, Merkle, and Reid (2000) discuss the leadership competencies created by the National Public Health Leadership Development Network (NLN), which provides a system for leadership development. In setting up the NLN, a workgroup gathered to develop competencies useful to their members, and "began the process of identifying major areas of leadership practice and corresponding competencies by defining the following core categories and their characteristics: transformational, legislative and politics, transorganization, and team and group dynamics" (Wright et al, 2000, p. 1204). Within each of these four groups they developed the competencies that make up the group, and listed examples of how each competency is actually defined in practice:

1. Core transformational competencies
   a. Visionary leadership
   b. Sense of mission

      c.   Effective change agent
2.   Political competencies
      a.   Political processes
      b.   Negotiation
      c.   Ethics and power
      d.   Marketing and education
3.   Transorganizational competencies
      a.   Understanding of organizational dynamics
      b.   Interorganizational collaborating mechanisms
      c.   Social forecasting and marketing
4.   Team-building competencies
      a.   Develop team-oriented structures and systems
      b.   Facilitate development of teams and work groups
      c.   Serve in facilitation and mediation roles
      d.   Serve as an effective team member (Wright et al., 2000, p. 1205-1206).

Although some of these are a little wordy and jargon-filled, the basic concepts seem sound, and the additional listings of specific definitions help to fill out the skills needed for successful leadership.

Contino (2004) discussed the leadership competencies needed by critical care nurses, from the perspective of her own professional experience and from material she has read during her career. She groups them into four categories: organizational management skills; communication skills; data/operations analysis and strategic planning skills, and; creative/visionary skills. She notes that "although the categories are an artificial separation of skills that intertwine and overlap, the skills are discussed separately for the purpose of explaining each skill and demonstrating its applicability" (Contino, 2004, p. 52). This idea of integration reoccurs in the competencies literature, which supports the emphasis on the fact that no quality exists in a vacuum but depends on the others around it for successful integration into exemplary leadership.

Hirzel's organization, ASQ's Human Development and Leadership Division, has defined seven concepts of leadership: personal characteristics that would be useful leadership competencies, although Hirzel does not use the word competencies at all. They are: accountability, courage, humility, integrity, creativity, perseverance, and well-being (Hirzel, 2003, p. 374-375). But he does not look at them working independently in isolation: "Of course each of these competencies by themselves is insufficient to define what a leader truly does. It is the integration of these competencies, the simultaneous implementation of more than one competency, which provides leadership its complex nature" (Hirzel, 2003, p. 374). Leadership is not something that happens in a vacuum. There is a constant flow of ideas and people and situations going on around a leader. Good leaders will need to bring forward different competencies at different times to be successful. Again the Contingency Theory of leadership supports the need to have many skills available to meet shifting needs and situations.

Romano's description of a leadership training program in the Federal Executive Institute (FEI), brings forward several different leadership competencies, a keystone of which is "working with people to improve their ability to communicate" (Romano, 1999, p. 23). The program is structured to emphasize the omnipresent need for communication in every facet of a leader's job. Other competencies include motivating, resolving conflict, and giving responsibility through practice and reinforcement (Romano, 1999, p. 24). Although details are not given about the training process, the competencies listed are similar to others discussed in the literature: difficult to measure without a careful design. The FEI also understands the importance of leadership and leading from every position within in an organization; as Romano (1999, p. 26) states "If there is any dearth of leadership today, smart companies recognize that the solution is to grow leaders at

43

every level of the organization". Building competencies for leaders in all positions to lead should

be a good step toward building a more efficient and well-run organization.

In discussing the development of training programs for leadership competencies, Conger

and Ready (2004) list the leadership competencies used by Eli Lilly and Company to assess their

managers, which include

- Model the values.
- Create external focus.
- Anticipate changes and prepare for the future.
- Implement with quality, speed, and value.
- Achieve results with people.
- Evaluate and act.
- Share key learnings (Conger and Ready, 2004, p. 42).

These competencies are very general, as are many others in this review, and would be

difficult to integrate into any sort of training program for leaders.

Other careers

The development of good leaders is absolutely essential in military environments, as lives

depend on the decisions that military leaders make. Moilanen (2002, p. 57), writing of leadership

and military readiness, identifies the four main leadership competencies as "conceptual,

interpersonal, technical, and tactical," complemented by "values, attributes, and actions." The

specific competencies he discusses are:

- Mental agility
- Adaptive, critical thinking
- Ingenious doing
- Innovative
- Initiative
- Prudent risk-taking
- Exploit information-age situational understanding
- Agents of change (Moilanen, 2002, p. 57).

Leaders are trained in these competencies and their training is measured to assess their progress

toward their leadership development goals. This assessment of progress is an important part of

an effective training program, and the development of these competencies allows the assessment of aspiring leaders.

Brown and Eggers (2005) discuss the correctional profession's leadership competencies. Although there is no immediately apparent resemblance between public libraries and jails and prisons, they all exist to serve a public need and they are publicly funded. They are likely to be organizations that are often overburdened by the number of "users" they serve, often with insufficient funding to serve all of their needs. "The National Institute of Correction's management and leadership programs serve organizations ranging from small, rural jails to large state correctional systems to the Federal Bureau of Prisons" (Brown & Eggers, 2005, p. 28), thus providing for a diversity in organizational size and focus that is similar to the diversity in public libraries, from tiny one-person storefront operations to large multi-location operations in major cities. This model develops different competencies and skills for different levels of management.

The core competencies that Brown and Eggers (2005, p.28) identify "are defined as a cluster of attitudes, traits, motives, skills, knowledge and behaviors that can be measured against accepted performance standards". As has been the case in other competency listings, the larger concepts of competencies are broken into smaller components that can be woven into training programs for aspiring leaders.

Executive Level:

Self-Awareness
Ethics and Values
Vision and Mission
Strategic Thinking
External Environment
Power and Influence
Collaboration
Team Building

Senior-Level Leader:

Self-Awareness

Ethics and Values
Vision and Mission
Strategic Thinking
External Environment
Power and Influence
Collaboration
Team Building
Strategic Planning

Manager Level:

Ethics and Values
Interpersonal Relationships
Team Building
Collaboration
Managing Conflict
Developing Direct Reports
Problem-Solving and Decision-Making
Knowledge of Criminal Justice
Program Planning
Performance Assessment
Strategic Thinking

Supervisor Level:

Ethics and Values
Interpersonal Skills
Team Building
Collaboration
Managing Conflict
Developing Direct Reports
Problem-Solving and Decision-Making
Knowledge of Criminal Justice
Oral and Written Communication
Motivating Others
Change Management (Brown & Eggers, 2005, p. 28)

The idea of breaking down the competencies into different managerial levels is not

typical in the leadership literature. Most of the discussion of leadership theorizes that leadership

is essentially the same across professions, and that different levels of management within a

profession would require essentially the same competencies. However, the careful consideration

Brown and Eggers have given to the specific competencies needed by their leaders at different

levels inspires more confidence in their work in identifying their important competencies.

Peters and Waterman (1982) discuss the idea of excellence for organizations, not for

specific people. However, their list of eight basic findings – they do not use the term

competencies – can be considered equally applicable to the people who are leading

organizations.

1. A bias for action: a preference for doing something – anything – rather than sending a question through cycles and cycles of analyses and committee reports.
2. Staying close to the customer – learning his preferences and catering to them.
3. Autonomy and entrepreneurship – breaking the corporation into small companies and encouraging them to think independently and competitively.
4. Productivity through people – creating in all employees the awareness that their best efforts are essential and that they will share in the rewards of the company's success.
5. Hands-on, values driven – insisting that executives keep in touch with the firm's essential business.
6. Stick to the knitting – remaining with the business the company knows best.
7. Simple form, lean staff – few administrative layers, few people at the upper levels.
8. Simultaneous loose-tight properties – fostering a climate where there is dedication to the central values of the company combined with tolerance for all employees who accept those values (Peters & Waterman, 1982).

Again, these findings translate into competencies that seem reasonable for leaders and

would be helpful to them in many situations.

Leadership competencies without professional focus

Farren (2001) discusses the need for leaders to become masters of their work, noting

that they "will continue to change work settings, even industries, in the service of building

mastery, experiencing so many aspects of a profession that their instincts are fine-tuned" (p. 7).

The leadership competencies she predicts will become necessary for this mastery are: pattern

recognition, instincts, and confidence (Farren, 2001, p. 7). Not only is an environment of change surrounding manager/leaders emphasized, but the likelihood of changing jobs and locations is also presented as important. Without some transferability of competencies, their value would be greatly diminished.

Gebelein (2001) discusses leadership competencies in the context of leading through change and claims that the "best leaders do not simply respond to change but proactively recognize when change is necessary, understand the change management process, and foster an environment of agility, learning, and strategic anticipation" (Gebelein, 2001, p. 10). The competencies she sees as important for this process are:

1. Assess your change hardiness.
2. Be prepared for resistance.
3. Gain support for change.
4. Involve people in decisions that affect them.
5. Create opportunities to practice new skills.
6. Use feedback processes to monitor implementation.
7. Reward and reinforce both progress and success.
8. Align systems to support the desired new behaviors (Gebelein, 2001, p. 10).

Although these competencies focus specifically on change, as opposed to being more generally applicable to leadership, managing change is an important part of leadership, and is increasingly relevant in the public library world (as it is in most businesses). Achieving change successfully is an important skill for directors to master if they want to be successful.

Hart and Waisman (2005) compared leaders and managers and, in doing so, came up with a list of competencies important for a good leader. Although the distinction between "manager" and "leader" is often blurred in much of the research literature that is currently being published, Hart and Waisman's enumeration of leadership competencies is valuable and could help leaders think about the kinds of skills they need to set themselves apart from the rest of the organization. These competencies include:

- Has a long-range perspective
- Asks what and why
- Eyes the horizon
- Originates
- Challenges the status quo
- Focuses on goals of innovation
- Power is based on personal influence
- Demonstrates skill in selling the vision
- Demonstrates skill in dealing with ambiguity
- Demonstrates skill in persuasion
- Works toward employee commitment
- Relies on intuitive decision-making style
- Takes the necessary risks
- Uses an informational base, including "gut" feelings
- Builds success through employee commitment
- Does not want to experience inertia
- Sets standards of excellence (Hart & Waisman, 2005, p. 22).

Klenke (2002) looked at leadership competencies in three women leaders from different contexts: Ruth Simmons, Mary Kay, and Oprah Winfrey and notes that beyond the differences in context, these three "exemplify three attributes that play a focal role in current leadership research: transforming/transformational leadership, emotional intelligence, and the ability to build trust" (Klenke, 2002, p. 25). Klenke breaks each of these three overall attributes into smaller individual competencies.

Under the heading "transforming/transformational leadership" she highlights charisma, defined as a "transcendent vision and/or ideology, the ability to inspire and build confidence, rhetorical ability and a 'powerful aura'" (Klenke, 2002, p. 25). The next attribute is emotional intelligence, whose hallmarks "are self-awareness, self-regulation, empathy and optimism in the face of failure, openness to and effectiveness in leading change, trustworthiness and comfort with ambiguity" (Klenke, 2002, p. 26). Traits she discusses as being part of the emotional intelligence of her three leaders include: motivation, persistence, making commitments, desire to achieve, overcome frustration, integrate emotions, build bonds, teamwork, openness,

straightforward, listen, share information, conflict management skills, and negotiation skills (Klenke, 2002, p. 28).

The third of Klenke's attributes is building trust. Organizations she discusses as focused on building trust in their employees and customers include Southwest Airlines and Nordstrom, both of which are known for good customer service and for retention of employees. Several other authors mentioned building trust as a significant competency for leaders, and it does seem as if it has significant implications for leadership success.

Another article (Leading to learn, 2003) discusses the importance of learning as a leadership competency and notes that "most parties agree that one of the primary functions of a leader should be to set a path towards a goal and then inspire and motivate others to follow" (Leading to learn, 2003, p. 19). The author suggests developing a learning organization (LO) structure to encourage people to keep learning about leadership and improving their skills and lists further competencies important for leadership: vision and commitment; seeing a solution to a problem, and; foster a learning culture. The focus of this article on continued learning is not common in the literature, but it is an important focus; it is perhaps self-evident that an aspect of effective leadership is continually striving to improve skills and abilities. Just as organizations and community needs and pressures are ever-changing, so too are the competencies needed to best deal with these needs and pressures.

Clawson (2003) discusses his competencies in the context of continuous improvement, framing his designated competencies as actions, "intentionally to communicate the idea that none of the steps are binary processes, that is, you don't do them or not do them, and neither do you do them once and then are done with them. Rather, each is a process that involves a lifelong commitment to continuous improvement, constant polishing, revisiting, and adjusting" (Clawson, 2003, p. 94). His competencies are:

1.   Clarifying your center
2.   Clarifying what's possible
3.   Clarifying what others can contribute
4.   Supporting others so they can contribute
5.   Relentlessness
6.   Measuring and celebrating progress (Clawson, 2003, p. 94).

His emphasis on a lifetime of learning and improvement is an important aspect of his competencies. Although some of these are interesting (for example, "relentlessness"), and all are no doubt valuable to different managers, many of these would be difficult to measure. Training could be provided to put them into action, but it would be a very individual process. That is not necessarily a bad thing for leaders, but difficult to work into a general list of competencies for training purposes.

Scholtes (1999) has developed a list of six competencies for leaders that "is not intended to be the definitive list, but it is the best I could come up with" (Scholtes, 1999, p. S704). His honesty is refreshing, as he acknowledges the lack of certainty in his definition of leadership competencies. They include:

- thinking and leading systems (purpose),
- understanding the variability,
- leading learning,
- understanding human behavior,
- interactions and interdependencies,
- understanding and influencing the interactions and interdependencies among and between the system, variable, learning and human behavior
- giving the organization direction and focus.

Although these competencies are a little wordier than some of the others examined, the general ideas behind his competency lists are similar to those in other lists.

In a series of short leadership lessons, Cox (2003) discusses lessons for managers and leaders, noting that the "characteristics of great leaders are universal and timeless. They reflect

what leaders choose to believe and how they decide to behave. Great leaders demonstrate all 10

characteristics – regardless of their field" (Cox, 2003, p. 7). These are:

1.   Uncompromising integrity.
2.   Absence of pettiness.
3.   Works on things by priority.
4.   Courageous.
5.   Committed.
6.   Goal oriented.
7.   Unorthodox.
8.   Inspired enthusiasm that's contagious.
9.   Levelheaded in times of crisis.
10.   Desire to help others grow (Cox, 2003, p. 7-8).

Most of these competencies are in line with others mentioned in the literature, with the

possible exception of "absence of pettiness", which is a useful characteristic for any leader.

However, generalizing rather too broadly in identifying these ten as the most important

competencies without using any research to back up his selection somewhat weakens his

argument.

Krause (1995) looks at leadership from an unusual perspective – Sun Tzu's Art of War,

as made relevant for leaders today. He relates many of the lessons handed down in the waging of

wars to leadership. Sun Tzu's principles are summarized:

1.   Learn to fight
2.   Show the way.
3.   Do it right.
4.   Know the facts.
5.   Expect the worst.
6.   Seize the day.
7.   Burn the bridges.
8.   Do it better.
9.   Pull together.
10.   Keep them guessing (Krause, 1995, p. 109).

Although public library leaders are rarely going to be involved in physical battles, dealing

with conflict is a necessary part of any leadership position. An interesting motivational technique

for leaders is his competency "burn the bridges" – "Sun Tzu advises the successful leader to

place himself and his constituents in situations where they are in danger of failing. When people know they can fail if they do not work together, they will be unified in their purpose and will maintain their commitments to a set of goals and objectives" (Krause, 1995, p. 113). Encouraging this kind of teamwork and commitment to achieving goals would be a very valuable skill for any leader to possess.

Guttman (2005) discusses only one leadership competency: conflict management. He claims that: "The modern organization, with its hyperactivity, matrix structure, at-a-distance relationships, and asynchronous work patterns, has been a holding pen for conflict" (Guttman, 2005, p. 35). It is not ever going to be possible to stop conflict in the workplace, but it is a leader's responsibility to find ways to deal with it. It is not possible to eliminate all conflict; and, if it were possible, may not even be desirable to do so. As any organization faces increased demands and decreased funding (as is the case in many public libraries), conflict is more likely to occur, making conflict resolution an increasingly important competency for leaders. Guttman outlines ways to train staff and leaders in how to handle conflict and apply the principles of conflict resolution.

Reichert (2006) also discusses only one leadership competency, listening, claiming that "listening leaders gain feedback on how they are being perceived, learn how their team members are working, build positive team culture, engage with their team members, and encourage the expression of new ideas and innovative thinking" (Reichert, 2006, p. 46). Listening well is a skill that can be taught, and could be a valuable part of a training program for leaders. She writes that when people are taught to listen they learn "to avoid interrupting, make eye contact, pay attention to the speaker, give feedback in the form of acknowledgements, ask questions to encourage the speaker to continue and ask questions to clarify understanding" (Reichert, 2006, p. 46). Communication is a competency that is frequently included in lists created for leaders,

and it does seem almost self-evident that good communication skills, including listening, are

important for successful leaders.

DePree (1992) takes a more light-hearted view of leadership: "In spite of my admiration

for lists, to catalog the attributes of a leader is like fighting the Hydra. Like Hercules, I confront

two more heads every time I write one off… Just another proof that leadership is something we

never completely understand" (DePree, 1992, p. 219). Despite his uncertainty, he does manage

to create a list of competencies for leaders:

- Integrity
- Vulnerability
- Discernment
- Awareness of the human spirit
- Courage in relationships
- Sense of humor
- Intellectual energy and curiosity
- Respect for the future, regard for the present, understanding of the past
- Predictability
- Breadth
- Comfort with ambiguity
- Presence

Several competencies on DePree's list do resemble competencies often found on other

competency lists. DePree's comment on the difficulty of defining a leader is very pertinent, as

this very difficulty is the reason why there is such a wide variety of competencies. Looking at

many different lists, created in different contexts and for different professions by different

people, should help to give a more global view of the competencies named as important by

many people, which, in turn, should help focus on the more important aspects of leadership.

Summary

Looking at leadership competencies formulated either through research or from personal

experience and observation, over many different professional areas and by many different

people, gives an interesting overview of the ways people define good leadership. Although there are differences, many similar competencies emerge from the literature, which would indicate that many aspects of leadership are stable and transferable. For training purposes, this is good news as it means that leaders who want to improve their skills should be able to find organized programs or engage in self-study to develop the competencies widely seen as important. They can also be confident that these skills will not change markedly over time, although there will always be more to learn. For trainers, the stability of those important competencies that can be used in training helps establish opportunities to assess the progress of graduates, and to compare the progress of graduates who were instructed in similar competencies to develop their leadership skills at different times. Continuing to look at competencies for manager/leaders, and striving constantly to improve the set of ideas we use to help build competencies for those manager/leaders will help the LIS profession improve the quality of its leadership.

Library Leadership Training

The idea that libraries of all types are in need of good leadership is not a new one, but librarians who can step into director positions and make a library successful are not easy to find. Building a set of good competencies is important for setting a foundation to help directors know what they need to be successful in their jobs. Good manager/leaders need to explore the important competencies, and then to be given opportunities for experience so they can develop their potential and meet their responsibilities to their libraries and their communities. Looking at training opportunities that already exist for library leaders will help to understand what is being taught to future directors, and to give perspective on the need for competencies designed for librarians.

Three people stand out as frequent providers of leadership training to libraries: Maureen Sullivan, Becky Schreiber, and John Shannon. (Schreiber and Shannon work together.) These consultants, who have trained many librarians across the United States in leadership skills, seem to have very different training techniques, although it is hard to determine the specifics of their training programs, as they are not fully reported in the literature and none of them provide information about the evaluations of their programs. However, numerous reports from graduates of their programs have been published and they are generally very positive about the training they provide. Some library institutions have also provided training to leaders and directors at different stages of their career development, most of which have focused on librarians in a specific geographical region, in a specific state or in a specific library.

Although the sheer number of these programs indicates the seriousness with which the profession is taking the potential leadership crisis, these programs are not regulated by ALA or any other unifying organization and they provide undefined goals and skills to librarians who want to be leaders in their libraries. Their impact is further weakened by the fact that they seem to be encountering budgetary issues, resulting in gaps in their offerings, or causing them to cease completely after a year or two. It is often difficult to tell whether a particular leadership program is currently available or whether any of them is expected to resume operation. These inconsistencies cannot help but add to the general sense of uncertainty already surrounding the appropriate training and preparation that will produce the best results for those in library manager/leader positions.

Given that the delivery of their training programs is the source of their income, it is understandable that consultants might not want to share the details of their programs freely. It is, however, not helpful to the overall profession not to have a clear idea of the training being provided to its leaders. Greater transparency in programs would enable others in the profession

to judge the efficacy of the training that new directors are receiving. Moreover, providing the results of any evaluation process, to see how helpful and useful the training was for the students, would also be a helpful guide, not only for future employers and the profession, but also for librarians who need help choosing the best training program for them to attend.

Table One:
Schreiber and Shannon Training Programs
- Library Leadership Institute at Snowbird (Salt Lake City Public Library)
- Nebraska Library Leadership Institute (Nebraska Library Association)
- Library Leadership Ohio (Ohio State Library)
- Pacific Northwest Library Association Institute.
- Synergy The Illinois Library Leadership Initiative (Illinois State Library)
- Maryland Library Leadership Institute (Maryland Library Association)

Programs led by Shannon and Schreiber shared many common features and seem to be virtually identical wherever they are offered. (See Table One for listing of Schreiber and Shannon training programs.) The highlights of their programs include an emphasis on creating a vision statement, both professional and personal, many opportunities for teamwork, and an emphasis on connecting with both fellow attendees and mentors. Their efforts seem to focus on creating a positive group experience for the attendees, which may extend long past the actual program. As one graduate has noted: "My professional life will forever refer to this intensely personal investigation and skills development" (Openo, 2005, p. 13). Similar comments are frequently made in the literature by graduates of Shannon and Schreiber's programs.

Although no specific goals were set for participants at the outset of these programs, Schreiber and Shannon did express some general ideas for their leadership training programs:

"We have always encouraged our clients to take the path of participative management and teamwork, and to recognize the advantages of inclusion" (Schreiber & Shannon, 2001, p. 39). Competencies which they have discussed as significant for library leaders include self-awareness, embracing change, customer focus, stands to take in the future, collaborative spirit, and a bias for creative action (Schreiber & Shannon, 2001, p. 46). Although these are not stated explicitly in the articles by participants who have discussed their experiences in Schreiber and Shannon training, it would appear these are ideas they would try to incorporate into their programs.

Participants generally fill out applications in order to join these training programs. Criteria for applicants to the Library Leadership Ohio program include excellent communication skills, successful library employment experience, initiative, commitment and reasonable risk-taking, forward-thinking approach to problem-solving, and a commitment to the profession (http://www.nolanet.org/llohio/llohio.htm). It is not clear whether these competencies will be explored further during the training, or if they are merely included as indicators of potential success in future leadership positions. No evaluation is provided at the conclusion of the training, but the participants are encouraged to stay in contact with each other and continue to build the networks developed during the training program.

Table Two:
Sullivan's Training Programs

- ACRL/Harvard Leadership Institute For Academic Librarians
- Mountain Plains Library Association Leadership Institute
- Library Leadership Massachusetts (Massachusetts Board of Library Commissioners)
- Iowa Library Association Leadership Institute
- Southeastern Institute on Collaborative Library Leadership (Southeastern Library Network).
- New Jersey Academy of Library Leadership (New Jersey State Library)
- The Emerging Leaders Program (American Library Association)

Many, but not all, of Sullivan's training programs involve academic libraries and librarians, in contrast to the primarily public library focus of Shannon and Schreiber. (See Table Two for listing of Sullivan's training programs.) She works as a consultant with many different library organizations across the country, and is a former president of the Association of College and Research Libraries. Sullivan's leadership focus seems to be on larger libraries and more national in its scope. Competencies she describes as important for library leaders include commitment, collaboration, investment of time and energy, persistence, and continuous awareness of changes in opportunities (Sullivan, 1999, p. 141).

From the glimpses given of these training programs in the literature by successful graduates, it appears as though Sullivan's programs provide potentially more structure, as well as a different style and focus than those of Schreiber and Shannon. As the participants tend to be academic librarians, and often library managers and directors with several years of experience behind them, it is not surprising that there is more of a focus on providing case studies and literature to be read during the training program. For example, during the Harvard Leadership Institute for Academic Librarians, the training is organized to follow the four frames of Lee Bolman and Terrence Deal's book *Reframing Organizations: Artistry, Choice, and Leadership* (Dancik, 2006), which was mailed to all participants before the program started. Saunders has noted the four areas covered: "With leadership as the broad theme of the Institute, the faculty offered insights and guided interactions around four areas: organizational strategy, financial management, transformational learning, and planning" (Saunders, 1999, p. 645).

Although specific details as to the training and any potential evaluation that may have occurred are not given in the literature about these programs, there is some information given in the program description about topics which will be discussed. For

Table Three:
Institution-led Training Programs

- Florida Library Leadership Program (State Library and Archives of Florida)
- Urban Libraries Council Executive Leadership Institute
- South Carolina Public Library Leadership Institute (South Carolina State Library)
- Thinking Outside the Borders, Library Leadership in a World Community (Arizona State Library, Mortenson Center for International Library Programs, Illinois State Library).
- Wyoming Library Leadership Institute (Wyoming State Library)
- New York Library Association Library Leadership and Management Academy
- New England Library Leadership Symposium (New England Library Association)
- Public Awareness Leadership Institute (Kentucky Department for Library and Archives)
- Northern Exposure to Leadership (Canada).
- Nevada Library Leadership Institute (Nevada State Library and Archives).
- Institute for Academic Library Leadership (Vanderbilt Peabody College)
- Texas Accelerated Library Leaders – Tall Texans (Texas Library Association).
- Research Library Leadership Fellows Program (ARL member libraries).
- Sun Seeker Leadership Institute (Southeast Florida Library Information Network)
- Leadership Institute (North Carolina Library Association)
- OLAGOLD: Leadership Institute Committee (Oklahoma Library Association)
- Senior Fellows Program (UCLA)

example, in the Library Leadership Massachusetts 2007 website, program topics addressed apparently included risk-taking, presentation skills, communication, negotiation, and collaboration (http://llma.blogspot.com/2007_11_01_archive.html).

Rather than use the services of well-known trainers, many state libraries and library organizations are establishing their own leadership training organizations, bringing in local leaders from a variety of backgrounds, including successful directors, academic researchers, and consultants outside the LIS field, to provide a well-rounded training opportunity for their librarians. (See Table Three for a list of library organization sponsored programs.) Another trend that seems to be emerging in several of these leadership training programs is the inclusion of support staff and others without a degree in library and information science. This seems to recognize the vital role that support staff who are manager/leaders play in public libraries, and to address the problem of the infrequency with which their training needs are addressed in comparison with those librarians who do hold degrees.

Summary

Training new leaders, directors, and managers is clearly important to the library profession, and the profession is responding by providing a number of leadership training possibilities for librarians interested in moving into leadership or administrative positions in libraries. However, the quality of these programs cannot be evaluated at this time. We do not know what competencies are being trained for or what processes are being used in the programs, and we have no assessments to show us whether they are successful in any way. From reports in the literature written by their graduates, it would appear that these programs have provided them with something valuable in the training they offer, which is in itself a positive sign. Coming together as a profession to agree on a set of competencies that are important for public library

directors would provide a valuable starting place for future training endeavors. It is hoped that

this research study will provide competencies for public library manager/leaders, but also that

others will build on the information learned here to continue to help direct the training process.

CHAPTER THREE
METHODOLOGY

The purpose of this study is to develop a set of competencies for public library directors over the next decade. To accomplish this, the knowledge, skills, and abilities, as well as less easily measured attainments important for a director in public libraries, drawn from a review of the literature on library leadership and management have been collected. The collected concepts were refined into a group of the most important competencies for public library directors by a group of public library directors currently managing successful public libraries across the United States.

In the previous chapter, in the literature of several fields about competencies, their development, and leadership training were examined. This chapter will look at the two methods selected to satisfy the research objectives for this study: content analysis and Delphi methodology. The second section of this chapter describes the methodology for this study.

Methodology literature review for this study

The use of a mixed methods strategy, Content Analysis and Delphi Method, in this study is the best method for developing the most useful set of competencies for public library directors. There is tension between LIS academics and practitioners in several areas, but one consistent issue is competencies – their development and use (Lester & Van Fleet, 2008, p. 60). This study is designed to provide a bridge between research and the literature of the profession, and those actually working as directors. Looking at the opinions of both groups should help to

make the final set of competencies, while not the only possible group, useful and acceptable to both groups. Gathering input from different sources on any decision making process is always helpful to ensure the best outcome. These two methodologies will gather the information from people to create the best set of competencies.

Content Analysis

When faced with a large amount of information from the literature, a good first step is to sort the data into groups in order to begin to understand and work with the content. As Peresie and Alexander (2005, p. 27) note: "Content analysis involves organizing the information that is found then breaking it into clusters and categories, synthesizing it, and looking for important patterns or themes that the researcher can relate to others". Taking the ideas distributed by many people from across the literature, and organizing them into new groups is the basis of a good content analysis. Researchers should take reasonable care, as well as apply common sense, when drawing conclusions from the literature and analyzing their results to obtain the best results. Bringing disparate ideas together into topical groups can facilitate their comparison and assist in identifying emphases in the literature that might not otherwise be apparent. It allows the large, distinct group of ideas from many sources to be more clearly understood in a way that meets the needs of a research study. Good findings, using content analysis, are not just opinions of the researcher; they can be tested for both validity and reliability (White & Marsh, 2006, p. 27). For best results, and to ensure some level of validity, researchers should work with others during the categorization process. This will help ensure the results obtained are actually results, and not biased by any preconceptions a researcher may bring to the project. When possible, it is also useful to provide the raw data when writing up the results of a content analysis project; this

would allow reviewers to make judgments for themselves about the validity of the sorting process.

<p style="text-align: center;">Content Analysis Research Examples</p>

One of the areas in which LIS researchers have used content analysis is the examination of job requirements through a review of job ads. Shank (2006) analyzed job ads for information about a newly created position in academic libraries – that of instructional design librarian. He discussed the difficulty of describing a job for which there is no commonly agreed-upon definition and he hoped to determine just what it is that employers look for when hiring instructional design librarians. He uses the term "core qualifications" rather than competencies in his research, but does not define this term. Although he does not appear to have worked with anyone else to help validate his findings, he did identify factors such as tenure and faculty status, salary ranges, and educational requirements as important. Shank's study seems to be a fairly standard use of content analysis; he uses it to break large bodies of information from the literature – in this case, job ads – into categories.

Croneis and Henderson (2002) also looked at job ads – for electronic and digital librarian positions. They analyzed 223 ads, covering a ten-year period, and determined that the number of these jobs is increasing. They apparently worked together to validate their findings, using content analysis to count instances of position title, types of institutions, job responsibilities, and department and reporting lines. Their study used content analysis to bring together different pieces of information to support the purposes of their research.

Adkins and Esser (2004) reviewed job ads from *American Libraries*, both historical and current issues, to discover the competencies for children's librarian positions. Their concept of competency was not defined. They looked through 269 ads for children's librarians, and

reviewed the requirements to determine whether knowledge of literature or knowledge of technology was more significant. They followed this up with a survey of seven libraries that were seeking children's librarians, asking which was more important to them in hiring. The conclusions from both components of their research indicated that knowledge of both literature and technology was necessary for success. The follow-up portion of this study helped to clarify results from the analysis of the literature.

Discovering the value of project management skills for librarians was the purpose of Kinkus' research (2007). She used content analysis to look at job ads, attempting to discover the demand for project management skills in the library world. She discusses ideas used in defining job competencies, such as human skills and soft skills, but does not define her idea of skills or competencies that she is extracting from the ads. Her analysis counted ads which either explicitly had the words "project management" or had language in the ads indicating the job was related to project management. After examining hundreds of ads from 1993, 2003 and 2004, she concluded that the need for project management skills in librarian jobs is increasing. Learning about the competencies most wanted for project managers, and for positions with other titles that involve project management, is an appropriate use of content analysis as a research methodology, providing a basis for further research to hone its findings into more practicable ideas.

LIS researchers are also using content analysis to look at attitudes portrayed about the profession. Robinson (2006) looked at stereotypes of librarians as they appeared in two Australian newspapers, wanting to know if the stereotype of librarian (older, female, quiet, orderly) would be supported. She used content analysis to identify different characteristics mentioned in the articles, including age, dress, and attitude toward the librarian. She conducted her research alone, with no mention of anyone else to validate her results. She determined that,

66

while not all aspects of the stereotype were evident, the image of librarian in the news did match the reality of Australian librarians (generally over 40 and female). Peresie and Alexander (2005) looked at stereotypes of librarians in young adult literature to see whether the image portrayed was negative, or if it reflected the diversity of the profession. Seventeen different young adult novels were examined in this research project, and their content was analyzed for what they said about such things as the personality, behavior, gender and ethnicity of librarians. The results showed that in general, the young adult books portrayed librarians in either a neutral or negative way.

Content analysis can be a valuable way of condensing large amounts of information into manageable groupings of the most important data in a research study. Several steps should be followed to ensure the best results: taking a careful look at the literature to collect all the information relevant to the study; defining the research parameters and ideas; and working with at least one other person to analyze and identify relevant data. Following these guidelines not only makes the analysis of a large group of data more reliable and likely to lead to better results, but may also provide researchers with alternative perspectives and ideas about the data under consideration.

Delphi Method

Structured interviews or surveys of experts (identified by the researcher) from whom information is gathered form the basis of the Delphi methodology. Delphi studies ask experts to share their ideas in an open-ended discussion to discover information (Brill, Bishop & Walker, 2006, p. 120). Through repeated rounds of thought, during which participants have the opportunity to see the material contributed by others, each of the experts is able to bring their ideas and experience to the issue under investigation. The method is also helpful for focusing on

the most significant aspects of a research topic, and can be used to address a wide variety of issues.

In this method there are two or more opportunities (rounds) in which the participants can share their opinions on the topic of the research, which gives them the possibility of building on their answers in the second and any further rounds, and of taking into account the responses from their fellow participants/experts. As Gordon describes it, "In a sense, the Delphi method is a controlled debate…More often than not, expert groups move toward consensus" (Gordon, 1994, p. 3). Even when consensus does not develop around the research topic, other ideas arising during disagreement or polarized opinions from members of the expert group can be valuable to the researcher.

Selection of the participants is important if good results are to be obtained from the application of the methodology. Since the group is deliberately not representative of a population, identifying people who are knowledgeable about the issue is the key to ending up with the best results. Many Delphi studies use 15 to 35 people (Gordon, 1994, p. 6), whereas others use larger numbers. If a group is too large, it may be more difficult to reach agreement if there is not a focused topic to guide the discussion. Participants contribute to the process anonymously which should encourage honesty and openness in their responses, especially those that might be controversial or go against the group consensus. Anonymity might also solicit a wider selection of responses, as participants should feel less compelled to go along with the group's responses and more free to contribute their own ideas, regardless of their agreement or disagreement with other participants.

When discussing the results of a Delphi study, it is important to present them in a way that includes the variety of responses received. Researchers should show the spread of the answers given, so readers can have a more complete picture of the contributions provided by the

experts involved in the study. Feret and Marcinek (2005, p. 38) note that the "judgments that

typically survive a Delphi procedure may not be the 'best' judgments but, rather, the

compromise position. As a result, the surviving judgments may lack the significance that extreme

or conflicting positions may possess". To counter this problem, a complete discussion of the

material covered by the research participants can be included to make the results more

meaningful to readers, as they look over the entire breadth of the discussion.

<div align="center">Delphi Method Research Examples</div>

In the study reported by Brill, Bishop and Walker (2006), the researchers sought to

develop competencies for project managers. While they did not provide a specific definition for

competencies as they used the word in their research, they did discuss the complexity of

competencies and their use of a broad understanding of a competency. In round one of their

online Delphi study, 598 members of the convenience sample from their university responded to

their two open-ended questions about the skills and knowledge necessary for project managers.

They decided to analyze the data of only 147 respondents each of whom had twenty or more

years of project management experience, as they believed other answers would replicate their

answers.

The researchers developed 117 items, which they referred to as "success factors" (Brill,

Bishop, & Walker, 2006, p. 123) from their analysis and broke these factors into nine groups.

Eight of these groups were of traditionally considered trainable skills, including "have strong

verbal communication skills" and "create a project plan." The ninth group, containing 33.3% of

the success factors, consisted of items considered important by the participants but difficult to

learn through formal training, including flexibility and sense of humor; this group was identified

as "personal characteristics."

In round two, they asked 100 of the original 598 respondents to use a five-point Likert scale to rate all 78 items in the first eight of the categories developed from round one. The personal characteristics of the ninth group were presented as optional for the participants to rate, but most respondents did rate them. When analyzing the results of this round, they determined that means of 3.55 and higher suggested strong agreement that the competency was important. Looking at the entire list of 78 competencies, it appears that nearly all of them were ranked at a mean agreement of 3.55 or higher and, therefore, considered important. Providing so many potential competencies makes it difficult for any potential students to know what they should focus on in their own development, or for trainers to know what is most significant for training opportunities. Although this seems to be a common issue in Delphi studies, long lists created can be further refined by future research, or through focused questions during the Delphi process.

Birdir and Pearson (2000) attempted to discover competencies for research chefs using a Delphi methodology. After their review of other competency definitions, they defined "competence" for the purposes of their study "as skills, ability, knowledge, and other attributes that make a successful research chef" (2000, p. 205). In the pilot study, twelve research chefs were asked three open-ended questions to elicit a set of competencies; ten responded. The questions were: What skills and knowledge areas are required of successful research chefs? What responsibilities (task areas) distinguish a research chef from other chefs? And, what factors distinguish a respected leader among research chefs from those who are less successful?

The ideas elicited from the pilot study were clarified and grouped; no details were provided about the process of defining competencies. In the first round of study, 33 chefs from the Research Chefs Association were asked to rate each competency from the pilot study on a five-point Likert scale; 25 responded. After receiving the first round data in the mail, items were

70

adjusted and sent out for the second round – "46 knowledge statements, 38 skill and ability statements, and 23 behavioral statements in the final instrument" (Birdir & Pearson, 2000, p. 206). The results indicated there were two groups of research chefs: those focused on research and those focused on management. The competencies identified as important for the management-focused chefs include ability to work with customer/client groups, skill at public speaking, and knowledge of food service operations (p. 207). They also identified competencies useful to both groups, including ability to keep ego in check and ability to see the "Big Picture" (p. 208).

In both of these studies, the Delphi method allowed participants to think first about their own individual answers in conjunction with a set of provided competencies, then to consider answers provided by the rest of the group of similar experts. They decided which ideas would be most useful in answering the researchers' questions by offering their opinions as experts. The further rounds of the Delphi allowed each participant to think through the group's answers and to identify those which, when combined with their own ideas, they deemed most significant and useful.

There are a few potential difficulties with using the Delphi method in this type of research study, but these issues could be addressed in the directions given to participants. There may be a risk of "group-think" in the process, leading participants to choose answers they believe "should" be identified. To combat this, they can be encouraged in instructions about the process to think for themselves, and not to decide on answers they do not believe to be correct. There is also the potential for participants to select all the listed competencies as equally important. To overcome this problem arising from this, instructions for selection should emphasize the need for participants to select on the most important or necessary competencies, according to their own opinions. A further problem is the potential for the interest of

71

participants to flag so that they do not fully participate in giving answers in later rounds. They can be encouraged to complete the entire Delphi process by the offer of a reward for those who do participate in all rounds.

The potential benefits of using the Delphi method to build on ideas derived from a content analysis of the literature seem to outweigh potential difficulties. Using these two methods together should bring in the best answers to the research objectives of this study.

Content Analysis for this study

Information Collection

In this study to develop competencies for public library directors, a content analysis of the literature was done to find the important ideas in the literature, from researchers and other people contributing to the body of ideas held in the profession. In the next stage of the study, a Delphi method was used to refine that set from the literature to establish a final set of competencies important over the next decade.

After gathering the collection of literature with ideas for manager/leaders in the library profession, the specific competency ideas from each article were collected by the researcher and entered into a database. This large amount of raw data was then refined in the analysis step.

Study population

The population in this section of the study began with the literature examined in Chapter Two on leadership ideas for managers. The pertinent data were extracted by the researcher and put into tables in Appendices A and B. The classification work of the content analysis was done under the direction of the researcher, by a group of volunteers. These volunteers were recruited for their professional experience and their different perspectives on library leadership. The

group included a library director, a management professor, and two less experienced managers. It was hoped that these different perspectives would provide different views on the competencies and in the ways of defining and grouping them. This diversity of membership ensured the best results in assigning the competencies to the best categories.

Data Analysis

There were four coders involved in this stage, to ensure as much reliability as possible in collecting the information and sorting the data. Sheets of the competencies were printed, and then cut into strips with each idea from the literature on a single strip of paper. Approximately 300 competencies were collected from the literature, and distributed in each set. For each coder, the entire set of competencies was printed; each coder was assigned their own color of paper to ensure they could be sorted and identified later. During this process, the researcher was present to answer questions, or guide discussions back to the topic, but all decisions on the final competency set came from the group of coders. Instructions given to the group were that the focus was to identify the competencies that had been mentioned in the literature, which would require looking across the entire spectrum of words used to express ideas, ensuring all ideas were brought forward. As different authors potentially expressed similar ideas in different ways, the focus here was to ensure ideas were expressed as the same or as discrete.

In the first stage, the competencies were sorted by each person into their own piles: all instances of the same idea were put together into one pile. Then the coders and researcher all talked together about the piles and the definitions they were beginning to construct. In the second stage, the coders worked together to combine their piles. In this stage, they discussed the meanings of the ideas they were working with and the ways they were similar and different. The easiest piles were those similar across the coders; some piles took more time and discussion, and

73

there were items about which some felt strongly for inclusion, but did not meet the study definition of a competency.

In the third and last stage, they finalized their ideas to include all competencies they believed had been represented in the literature. Those most frequently mentioned were counted, resulting in a final group of 35 competencies. They also defined each individual competency in this set, to ensure their meaning was clear. This final group, along with the definitions, is found in Appendix C. This final step ensured the ideas expressed in the literature were all considered, and in the definition process it was clear the ideas were indeed the same and that they met the study definition of a competency. These competencies and their definitions were then to be carried forward and refined by practitioners.

Delphi Method for this study

Study population

In a Delphi study, the participants should be experts in the area under consideration. In this case, the subject is competencies for public library directors, so successful public library directors would be the best group to discuss the topic. There is no standard measurement for excellence in public library directors across the profession; nor is there any official rating agency for directors. Individual libraries, of course, assess and rate their own directors; but this information is not publically available, nor would it be standardized across libraries. However, there is a yearly rating of all public libraries across the country, published each year in the *American Libraries* journal: The Hennen's Annual Public Library Ratings (HAPLR) (http://www.haplr-index.com/index.html). This index uses Institute of Museum and Library Services (IMLS) data to rank libraries on 15 criteria primarily on circulation, staffing, materials, reference service, and funding levels. The index is widely known in the public library field, and has rated libraries for more than ten years. While not a measurement of the success of the

individual directors, for the purposes of this study it is assumed that the directors of these successful libraries are successful in their profession.

The top ten libraries are identified in ten different population categories, to ensure libraries from across the country can be recognized and to avoid overemphasizing libraries with large populations and large budgets. These one hundred best libraries are most likely led by the best directors. While it is impossible to definitely identify the most successful directors in the country, it is reasonable to assume the best libraries would hire the best directors. If this group cannot be confirmed as the best one hundred in the country, they are likely still at the top of their profession. There are other ways to measure success as a director, but the HAPLR index of libraries is an objective, identifiable group of directors. While not a perfect identification system, this is the best strategy for identifying successful public library directors to serve as experts in identifying competencies for the purposes of this study.

The directors of these one hundred libraries were invited to participate in this research study. While it was not anticipated that all hundred would go through until the end, there was a sufficient number to ensure a good result. When speaking to directors across the country, the researcher has repeatedly encountered directors who want this information and offer to participate in a study; so it was anticipated a useful amount of directors would participate to the end, which was the case. The geographic and population size diversity helped make the study stronger by utilizing data from directors of reasonably diverse libraries. However, these directors were not selected as representative of all directors; they were specifically selected as successful examples.

Anonymity was preserved in the individual answers and individual participants, as required by a Delphi. Although the total population of one hundred potential participants will be identifiable because of their association with the HAPLR-ranked libraries, those who chose or

chose not to participate will not be identified at any time during or after the study. In a Delphi, the individual responses are not as important as the consensus of the group, so identification of any specific individual in that group is not necessary.

<u>Information Collection</u>

The Delphi part of this study was conducted online. The participants in the study, as public library directors (a profession in which they are expected to both use and instruct others in the use of a variety of technologies, both hardware and software), were presumed to be familiar with online resources, so that using the online instrument will not be anything out of the ordinary for them. This familiarity was not assessed prior to the study; however, as a former public library director, and as someone in frequent contact with public library directors both online and in person, the researcher was confident in making this assumption. (Bolstering this assumption, neither before, during, nor after the recruiting emails were sent out and the online material was sent, were any emails or phone calls received by the researcher asking any questions about using the online survey software.) Also, as the participants are geographically dispersed across the country, this was the only realistic way for all of them to participate at one time in the honing process for the final competency set. The survey instruments are found in Appendices D and E.

The initial contact with the potential participants was an email to each director, giving details about the project, explaining how they were chosen as potential subjects, and their part in the study. This email is found in Appendix F. They were told that all directors in the group who participate to the end of the Delphi would be entered in a draw for two $50 gift cards for Amazon.com. A link to the first round of the study was included in this email. They were invited

to email the researcher with any questions or comments on the study, and given the UNC IRB contact information.

Informed consent was not sought in this study, as these were professionals being asked for their professional opinion – not for personal information. Their names and email addresses were collected in the research process to track their answers, and to ensure those participating finishing each round were given information about moving onward to the next round. No information that personally identified any participant's was made public at any time, nor did it play a role in the data analysis or reporting.

Study Instrument and Data Collection

Round One:

In the initial round of the Delphi, demographic information was collected about the participants: gender, years as a librarian, and years as a public library director. Demographic questions were chosen to preserve a balance between collecting necessary information for the study, and not asking so many questions that it becomes burdensome to the participants.

Then they established their initial ideas about the most important competencies for public library directors for the next decade. The definition of competency used in this study was on survey: knowledge, skills, and abilities, but also less easily measurable attainments important for a director in public libraries. They were given the set of competencies identified in the content analysis research done for this study, along with definitions established for each in that set to ensure clarity among participants about each idea. They were also asked to identify (with a checkmark) those competencies they believe best meet these criteria, according to their own professional opinions, focusing on those most important. No justification of their individual

choices was required, but they were provided with space to elaborate on the process, to share their reasoning, or just to share more information on each competency.

They were given the option to suggest other competencies they believe will be important which may be missing in the list from the literature. After the first round the competencies selected as important by more than 60% of the responding participants, and any other competencies suggested by the experts, were gathered into a list by the researcher and two other managerial professionals to ensure the ideas expressed by the Delphi participants were accurately reflected in future rounds.

Round Two

In Round Two of the study, that list was sent out to the participants from Round One. (This instrument is attached in Appendix D). This time, each competency had a Likert scale allowing the participants to rate each from one to seven. One is identified as "not at all important," two as "rarely important," three as "not too important," four as "neutral," five as "fairly important," six as "quite important," and seven as "absolutely necessary." Participants were directed to rate each individual competency on the scale, and encouraged to think carefully about the most important needs over the next decade. This comment was inserted as a way to encourage them not to automatically rate all competencies as equally important. They were also given the opportunity to again comment freely on their choices, the list as a whole, or other ideas they may wish to share about the process and about competencies for public library directors. No additional competencies were added to the list under consideration by the group, as the focus was to hone the existing list.

When these answers were returned, the mean, standard deviation, median and mode of each competency's Likert score across all participants was calculated. The competency set for

the third round of the Delphi was drawn from this data analysis. The focus of this study is to identify the most important competencies; therefore, any competency with a mean score below 6.0 will be removed. Standard deviations for each competency rating will be discussed in the analysis of the study.

Round Three

In Round Three, this set of competencies was sent out to participants from Round Two, with the same instructions given for that round – to rate each competency's importance on the Likert scale of one to seven according to the participant's opinion of its need over the next decade. The data analysis process used in Round Two was applied to the Round Three answers. At this point all the competencies were rated with a mean of 6.0 or higher, so this was the final set as refined by this group of experts.

Data Analysis

The standard deviation was also analyzed for each competency in the second and third rounds. While it was not used to refine the group of competencies during the Delphi process, it provides useful information about the selection process used by the participants, and will be discussed here. A small standard deviation would indicate all the answers are similar to the mean, while a large one would indicate a wider range of responses. By the final round of the Delphi, it was anticipated the standard deviations would be quite small, as there should be a high degree of unanimity on the responses. Then an ANOVA was calculated for each of the final competencies, comparing demographic categories of participants. These variables were gender, number of years as a librarian, number of years as a director, and size of population served. These additional statistical tests provide a more complete look at the resulting competencies created from the multi-stage process of this research study.

Conclusion

It is hoped that because the competencies emerging from this study arise from both the literature (representing a collection of ideas from researchers, practitioners of all sorts, and consultants) and the ideas of a set of directors of successful public libraries, they will be those most significant to public libraries and will provide a guideline for training opportunities for new or aspiring directors. The use of the two methodologies described has made available a very large amount of raw data which, after several stages of analysis, has enabled the production of a focused final set of competencies that combines input from academics and practitioners.

CHAPTER FOUR

RESULTS

This study was an effort to blend research methodologies to come up with a good set of

competencies for public library directors. To accomplish the objectives of this study, two

methodologies were used: content analysis and an online Delphi. This chapter will report the

results of these two methodologies in meeting the three research objectives.

Content Analysis

To meet the first research objective, a selection of literature discussing library leadership

was examined, the competencies identified, and the different ways people defined the term

competency were reported. The literature selection is detailed in Chapter Two, and the lists

drawn directly from the literature are in Appendices A (LIS leadership competencies developed

through research) and B (LIS leadership competencies compiled by means

other than research). Approximately 365 competencies identified as important for library

manager/leaders to know were identified in this way, fulfilling the first objective.

The next step was to validate the competencies found in the literature; that is, to group

together competencies that express the same idea in different ways and to ensure all

competencies were identified and defined. Four consultants worked together to identify the

competencies represented, creating one final master list of 35 competencies with definitions of

each term (see Appendix C). The methods to reach the first and second objectives are provided in more detail in Chapter Three.

<u>Delphi Study</u>

The third and final objective was to refine the competencies found in meeting the first two objectives through the opinions of current public library directors. The completion of this objective will be discussed here.

<u>First Round of Delphi</u>

The initial recruitment letter and initiation to the online Delphi first stage was sent out to 100 public library directors across the country. Of that group, 31 responded. Twenty six (83.9%) of them were female, five were male (16.1%). They were asked about their years of experience as librarians. All of the librarians responding to the survey reported eight or more years of experience as a librarian, as might be expected of the directors of nationally-recognized successful public libraries (see Table Four for complete breakdown of responses).

Table Four		
How many years have you worked as a librarian?		
Answer Options	**Response Percent**	**Response Count**
less than one year	0.0%	0
1 - 3 years	0.0%	0
4 - 7 years	0.0%	0
8 - 15 years	16.1%	5
16 - 20 years	6.5%	2

21 - 25 years	22.6%	7
26 - 30 years	12.9%	4
more than 30 years	41.9%	13

The number of years each participant has worked as a public library director was also of interest (see Table Five for this demographic breakdown). Their responses indicate that a majority (74.2%) had been library directors for eight or more years.

Table Five

How many years have you been a public library director? (total years, not just at this library)

Answer Options	Response Percent	Response Count
less than one year	0.0%	0
1 - 3 years	12.9%	4
4 - 7 years	12.9%	4
8 - 15 years	38.7%	12
16 - 20 years	12.9%	4
21 - 25 years	9.7%	3
26 - 30 years	3.2%	1
more than 30 years	9.7%	3

When looking at the population of respondents in this study, it may be useful to determine what we can about the directors who chose not to respond. While the identities of participants are confidential, publicly available data about the non-responding libraries can be collected by population size. In the sample were 10 libraries in each of 10 different population sizes, for a total of 100 libraries. The groups have been combined here to help anonymize the data without losing the meaning of the information. Most of the non-responding directors were in libraries

serving populations between 0 and 2,500. The next largest group of libraries with non-responding directors was those serving communities with population sizes of 25,000 to 100,000 people. Libraries serving the largest communities were the most likely to respond to the survey.

Table Six: Population Size of Libraries with Non-Responding Directors

Population Range	**Percentage of all non-responding libraries**
250,000 to 500,000+	17% of the non-respondents
25,000 to 100,0000	27%
5,000 to 10,000	21%
0 to 2,500	30%

The participants were given the list of 35 competencies from the content analysis part of the study, along with the definitions created by the consultants (see Appendix C). They were asked to identify those competencies they believed would be most important to public library directors over the next decade. The intent was to narrow the list of competencies down to only the most important. However if any participant felt that all 35 were of equal importance they could have so indicated; none did so. The Eighteen of the initial 35 competencies were selected as important in this round for re-submission to the participants in Round Two. Those competencies emerging as "important" in Round One were those selected by 60% or more of the participants. In a Likert analysis, a cutoff standard is set by the researcher to eliminate less important ideas

The six most-selected competencies, those defined as important by 80% or more of the participants, were:

- Vision   93.5%

- Communication Skills 87.1%

- Customer Service   87.1%

- Credibility   83.9%

- Interpersonal skills   80.6%

- Creativity   80.6%.

Further competencies selected by 60% or more of the participants, and included in the list for consideration in Round Two, were:

- Resource management 77.4%

- Flexibility   77.4%

- Problem Solving   74.2%

- Integrity   71.0%

- Risk Taking   71.0%

- Diplomacy   67.7%

- Demonstrating leadership   67.7%

- Delegation   67.7%

- Planning   67.7%

- Accountability   67.7%

- Sense of humor   64.5%

- Enthusiasm   61.3%

In a Delphi the ideas of least importance to participants are relevant to identifying those of less (or no) value to the group, as they hone the list to the most desired. The five least-selected competencies in this round, those selected by fewer than 40% of the participants, were:

- Employee centered   38.7%

- Previous experience   35.5%

- Intelligence   35.5%

- Emotional intelligence 32.5%

- Ambition   22.6%

In the first round, participants were also offered the opportunity to add other competencies they believed to be important for library directors but were not included in the initial list drawn from the literature. They added five further competencies, listed below with the definitions of each, as developed from the participants' ideas:

- Political understanding: government relations, Board relations, working with City departments, understanding organizational structure

- Maturity: calm and in control, emotional intelligence, thinking of others first

- Library knowledge: knowledge of patron and collections, understanding trends, intellectual freedom issues

- Accounting/budgeting: writing and passing budgets, grant writing and administering

- Advocacy skills: being visible in the community and library, active in community organizations, building relationships with decision makers

These five competencies were added to the 18 selected from the initial list, for further refinement by the group in Round Two of the Delphi study. Participants in the Delphi study added these ideas in the open-ended comment section; the ideas shared were considered by the researcher and two managers from the Content Analysis consultant group who developed the initial set of competencies. The definitions were developed from the ideas shared by the Delphi

participants. These five additional competencies covered all additional ideas suggested in Round One of the Delphi.

<u>Second Round of Delphi</u>

In Round Two, the list of 23 competencies from Round One was presented to the participants. Twenty-three people from the first round responded. In this round, the participants were asked to rate each competency on a Likert scale from one to seven. One was defined as "not at all important," seven was "absolutely necessary." Participants were asked to rate each individual competency, and encouraged to think about the most important needs of the profession over the next decade. They were also given the opportunity to comment on their choices, the list as a whole, or other ideas they may wish to share about the process and about competencies for public library directors. No additional competencies were added to the list under consideration by the group, as the focus was to hone the existing list.

There are different approaches in the literature to analyzing Likert data. The more standard statistical evaluation is to consider Likert data as ordinal, and to use non-parametric statistics (such as, median, mode, Kruskal-Wallis) in analyzing the data (Jamieson, 2004; Allen & Seaman, 2007; Hsu & Sandford, 2007). However, in other research studies using Likert scale data, the data are either explicitly stated to be considered nominal, or the issue is not raised and the data are treated as nominal and analyzed using parametric statistical tests (such as mean, ANOVA, standard deviations) (Rasmussen, 1989; Finegan, 1994; Sims, 1979; Haldane, 2003), including researchers looking at competency development (Daud, Ismail & Omar, 2010; Hurd & Buschbom, 2010). In some studies, both parametric and non-parametric analyses are used (Gregoire, T G, & Driver, B L., 1987; Smith, 2010). To be as comprehensive as possible in

looking at the data in this study (and after consultation with a statistician), both parametric and non-parametric testing were done and the final results compared.

In this round, the mode, median, and mean of each competency's Likert score across all participants was calculated to see which competencies were rated highest by participants. Again, only the highest rated competencies were to go on to Round Three. Any competency with a Likert scale mean below 6.0 in Round Two was eliminated from the refinement of the competency set. The mean was used here, although it is not a perfect measure, to give a reasonable cutoff point for advancement or withdrawal, and a more detailed picture of the information shared by participants. (There can be debate over whether a mean of 6.9 compared one of 6.1 is a meaningful measurement, but it does give information about the group's ratings at a glance.) All 23 competencies rated in this round, with their mode, median, mean and standard deviations are listed in Appendix G.

The competencies with both a mode and median of seven, along with their means, (on the seven-point scale) are shown below:

Table Seven: Round Two Highest Rated Competencies

Competency	Mode	Median	Mean	Standard deviation
Integrity	7	7	6.91	.29
Accountability	7	7	6.86	.35
Customer service	7	7	6.77	.42
Credibility	7	7	6.73	.55
Demonstrating	7	7	6.45	.80

Leadership				
Flexibility	7	7	6.45	.67
Vision	7	7	6.45	.67

Four of the 23 competencies were eliminated after this round, because they were rated lower than the average of 6.0 on the Likert scale by the expert participants:

Table Eight: Competencies Eliminated in Round Two

Competency	Mode	Median	Mean	Standard Deviation
Diplomacy	6	6	5.91	.84
Sense of humor	5	5	5.36	1.04
Library knowledge/value	6	6	5.82	.90
Accounting/budgeting	6	5	5.64	.90

These competencies had some of the highest standard deviations of the round, indicating there were differences of opinion. Two of the competencies, library knowledge/value and accounting/budgeting, had just been added by participants in Round One, who presumably felt strongly about their continuation, while others did not recognize their value in this context.

In Round Three, this further-refined set of 19 competencies from Round Two was sent out to the 23 participants from that round, with the same instructions: rate each competency on an individual Likert scale of one to seven according to the participant's opinion of its importance over the next decade. All 23 Round Two participants returned answers in Round Three within 48 hours. It was anticipated at this point that all the competencies would be rated at a mean of 6.0 or higher, and that proved to be the case, so the data collection was finished at this point.

All 19 of the competencies given to the expert participants in this round were rated with an average of 6.0 or higher, indicating they were "quite important" to "absolutely necessary" for public library directors in the view of this Delphi group. The final list of competencies with the definitions provided appears below as Table Nine.

Table Nine Final Competency and Definitions

Final Competency List	Definitions
Enthusiasm	optimism, positive emotional connection
Demonstrating leadership	being perceived as a leader; taking charge of situations effectively
Delegation	handing off both responsibilities and sufficient authority to accomplish necessary tasks
Accountability	taking responsibility for results - positive and negative
Planning	setting goals and developing strategies to achieve those goals
Integrity	following professional code, being honest, being a role model for how to behave; honesty
Risk taking	not taking the easy way; taking a chance of failure; bold or courageous action
Credibility	building trust in others; doing what you say you will do; being consistent in speech and actions
Resource management	finding money, facilities to accomplish goals

Creativity	seeing different ways to accomplish goals; bringing forward new ideas
Customer service	both internal and external; remembering that patrons are the focus of the library
Interpersonal skills	effectively working together with others of different levels or different positions (staff and public); good social skills; building rapport
Communication skills	speaking, writing, listening; understanding your message and conveying it to others
Flexibility	changing course when necessary, changing plans to be successful
Vision	looking at the future and see where the library can go; articulating directions
Political understanding	making decisions and use good judgment
Maturity	calm and in control, emotional intelligence, thinking of others first
Problem solving	making decisions and use good judgment
Advocacy skills	being visible in the community and library, active in community organizations, building relationships with decision makers

(See Appendix H for a chart of the mean, median, mode, and standard deviations of each competency.)

The lowest average was 6.00 for four of the competencies: enthusiasm, risk taking, resource management, and creativity. The highest average mean score was 6.57 for integrity and customer service. Two other highly rated competencies were rated with a mean of 6.52: accountability and credibility. While all the competencies in the final round had an average mean rating of 6.0 or higher on the Likert scales, their standard deviations were relatively high, higher than they had been in Round Two, indicating more disagreement among members about the significance of the competencies than had been shown in Round Two.

At this point, the final group of competencies has been determined and the three objectives of this study were met. However, to broaden the understanding of this final group,

additional statistical testing was performed to compare demographic similarities and differences in these data. While this is a small group of participants (23 in the final two rounds), looking at their differences and similarities may provide information useful to other public library directors.

The data in this round were examined with both parametric and non-parametric statistical analysis; as stated previously, since there are two different strategies used in the literature for analyzing Likert data, to be as complete as possible both strategies were carried out here, and the answers compared to see whether there were differences in the demographic descriptions of the data. On the parametric side of testing, the ANOVA was done to test whether the means of different groups, broken down by demographic groupings, were similar. The non-parametric test done was a Kruskal-Wallis, which is a non-parametric variation on the ANOVA, testing medians and their rankings to see whether groups are similar. The results of these two different statistical approaches will be compared for similarities, using the non-parametric correlation Spearman's rho.

Statistical Testing Looking at Years Worked as a Librarian

In the first ANOVA analysis, the answers of individuals were grouped according to the number of years they had worked as a librarian. Only one competency returned a significant difference based on this grouping of responses: Enthusiasm (p = .018)

8 – 14 years *n* = 4
21 – 25 years *n* = 5
26 – 30 years *n* = 4
More than 30 years *n* = 10

Enthusiasm

	Mean	Stnd Deviation
8 - 14 years	6.33	0.57
21 - 25 years	6.66	0.51
26 - 30 years	5.25	0.5
more than 30 years	5.8	0.78

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.649	3	1.883	4.285	0.018
Within Groups:	8.350	19	0.439		
Total:	13.999	22			

The directors with fewer years as librarians rated this competency higher than did librarians with

26 or more years of experience.

While the variance is not statistically significant, Problem Solving was found to be

another divisive competency (p = .095) when correlated with participants' years of experience as

librarians. The directors who had worked the most years as librarians rated this lower than did

directors with the least years as librarians.

8 – 14 years $n = 4$
21 – 25 years $n = 5$
26 – 30 years $n = 4$
More than 30 years $n = 10$

Problem Solving

	Mean	Stnd Deviation
8 - 14 years	6.66	0.57
21 - 25 years	6.33	0.51
26 - 30 years	5.5	0.57
more than 30 years	5.9	0.73

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	3.056	3	1.019	2.450	0.095
Within Groups:	7.899	19	0.416		
Total:	10.955	22			

For the results of testing on all the competencies based on differences in years served as a

librarian, see Appendix I.

Looking at these same data using a Kruskal-Wallis test, the same single competency

emerged as significantly different between these groups: Enthusiasm, with a *p* value of .0555. (A

p value of .05 or below is significant; in this specific case, the value was considered close enough

to a .05 to be significant.) For the results of all Kruskal-Wallis testing done to compare

groupings of years worked as a librarian, see Appendix J.

Enthusiasm

A: 8 - 14 years $n = 5$
B: 21 - 25 years $n = 4$
C: 26 - 30 years $n = 4$
D: more than 30 years $n = 10$

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	20	20	4	20	7	7	5	7
2	12	12	4	12	6	6	5	6
3	20	20	4	12	7	7	5	6
4	20	12	12	4	7	6	6	5
5	12			4	6			5
6				4				5
7				4				5
8				12				6
9				20				7
10				12				6

Reset		Calculate from Ranks			Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
16.8	16	6	10.4

H = 7.58
df = 3
P = 0.0555 *

A final test was carried out to see whether or not the answers provided in the ANOVA and in the Kruskal-Wallis tests were similar. This was the non-parametric test Spearman's rho; it measures the agreement in ordinal groups. See Appendix K for the entire set of data comparisons of these two groups. In this case, the *n* was 19 as the comparisons were on the competency ratings, not the respondents). At an *n* of 19, with an alpha of .05, the level of significance is .391; at .01 is .535. (see table:

http://www.ace.upm.edu.my/~bas/5950/Spearman%20Rho%20Table.pdf.) In this case, the r was .7556. This indicates the two groups of analysis are quite similar.

pairs	Ranks for		Raw Data for	
	X	Y	X	Y
1	1	1	.018	.0555
2	2	13	.094	.7698
3	15	14	.741	.8133
4	4	5	.186	.3932
5	19	15	.935	.8447
6	11	7	.485	.4992
7	5	4	.196	.3855
8	17	16	.756	.9402
9	9	8	.392	.5222
10	12	11	.595	.6731
11	10	10	.426	.5683
12	8	3	.387	.2377
13	6	9	.241	.5319
14	18	12	.777	.7315
15	16	15	.747	.8895
16	7	6	.279	.4592
17	13	17	.625	.9637
18	3	2	.095	.1919
19	14	18.5	.698	.9656

Reset	Calculate from Ranks		Calculate from Raw Data	
n	r_s	t	df	
19	0.7556	4.76	17	

P	one-tailed	0.000091
	two-tailed	0.000182

Chart One: Spearman's rho comparing ANOVA and Kruskal-Wallis breakdown for Years as a Librarian

Statistical Testing Looking at Years Worked as a Director

The next ANOVA was performed to look at differences between the respondents' answers based on the years they had worked as public library directors. (The groupings here are

condensed from the demographic questions, to avoid having only one or two people in a group to provide more useful data.) Only one competency showed statistically significant differences among the four groups: Maturity, with a P-value of .049.

1 - 7 years n = 5
8 - 15 years   n = 6
16 - 25 years n = 7
26 - 30+ years n = 4

Maturity

	Mean	Stnd Deviation
1 – 7 years	6.83	0.40
8 – 15 years	5.83	0.98
16 – 25 years	6	0.57
26 – 30+ years	5.75	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	4.192	3	1.397	3.155	0.049
Within Groups:	8.415	19	0.443		
Total:	12.607	22			

In this group, directors who had worked fewer years as a director rated Maturity most highly in this analysis, while more experienced directors rated it much lower. It may be that newer directors value the maturity (or experience or wisdom) of directors who have spent years doing the job that the new directors are just beginning. The results of the ANOVA testing on this group are in Appendix L. When the ANOVA testing was done, the Kruskal-Wallis was performed. There were no competencies which emerged from this analysis as significantly different from any other group. See Appendix M for the entire set of Kruskal-Wallis data.

In comparing the ANOVA and Kruskal-Wallis results, using the Spearman's rho, the *n* of 19 yielded an r of .8179. (See Chart Two for the scatterplot of these data.)These two groups are very similar, indicating both the parametric and non-parametric testing results are resulting in similar results. The comparison data for all the ANOVA and Kruskal-Wallis results are available in Appendix N.

Chart Two: Spearman's rho comparing ANOVA and Kruskal-Wallis breakdown for Years as Director

A final ANOVA test was done to look at potential differences in rating the competencies across the size of populations (as broken down in the HAPLR index) served by the libraries of the directors participating in the Delphi. Three competencies showed significant difference in their ratings across the four population-size groups. They were: Risk Taking (P-value of .031), Political Understanding (P-value of .007), and Advocacy Skills (P-value of .046). See Appendix O for the complete data set.

5K or less	$n = 7$
10 – 25K	$n = 6$
50 – 100K	$n = 5$
250 – 500+ K	$n = 5$

Risk Taking

	Mean	Stnd Dev
5K or less	5.28	0.95
10 – 25K	6.5	0.54
50 – 100K	6	0.70
250 – 500+ K	6.4	0.54

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.872	3	1.957	3.672	0.031
Within Groups:	10.127	19	0.533		
Total:	15.999	22			

Political Understanding

	Mean	Stnd Dev
5K or less	5.71	0.48
10 – 25K	6.83	0.40
50 – 100K	6.6	0.89
250 – 500+ K	6.8	0.44

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.391	3	1.797	5.453	0.007
Within Groups:	6.261	19	0.330		
Total:	11.652	22			

Advocacy Skills

	Mean	Stnd Dev
5K or less	5.71	0.75
10 – 25K	6.16	0.98
50 – 100K	6.8	0.44
250 – 500+ K	6.8	0.44

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.008	3	1.669	3.217	0.046
Within Groups:	9.861	19	0.519		
Total:	14.869	22			

The directors serving smaller populations were less likely to rate each of these competencies as highly as directors of libraries serving larger populations.

When analyzing these data using the Kruskal-Wallis test, one competency was significantly different among the population groups: Political Understanding (.0119). For the entire set of data, see Appendix P.

5K or less	$n = 7$
10 – 25K	$n = 6$
50 – 100K	$n = 5$
250 – 500+ K	$n = 5$

Political Understanding

Data Entry

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	2.5	17	17	17	5	7	7	7
2	7.5	17	2.5	17	6	7	5	7
3	7.5	17	7.5	17	6	7	6	7
4	7.5	7.5	17	17	6	6	7	7
5	7.5	17	17	17	6	7	7	7
6	2.5	17			5	7		
7	2.5				5			

Reset		Calculate from Ranks				Calculate from Raw Data		

Mean Ranks for Sample			
A	B	C	D
5.4	15.4	12.2	17

H = 10.96
df = 3
P = 0.0119 *

When comparing the Kruskal-Wallis and ANOVA results using the Spearman's rho, the *n* of 19 resulted in an r of .8561, indicating a very high degree of similarity between the two groups of results. Full analysis is shown in Appendix Q; see Chart Three for the scatter plot correlation.

Chart Three: Spearman's rho comparing ANOVA and Kruskal-Wallis for Population size

CHAPTER FIVE
DISCUSSION AND CONCLUSIONS

This study was an effort to develop a set of useful competencies for public library

directors. Two methodologies were chosen to elicit ideas from both the literature (from

academics, consultants, managers, and librarians) and from active public library directors. The

research design aimed to ensure the widest variety of ideas represented during the research study

in order to end up with the best final group. This final set of 19 is, of course, not the only

possible set of competencies that could be valuable to public library directors. While no

individual set of competencies can claim to be the best or only one, the final list developed here

provides a good set of basic competencies on which to build. Competencies "best" for any

specific profession or institution rely on many factors, including population served, economic

climate, political changes, and community context. The set of competencies developed in this

study is provided here with the clear understanding that the very nature of competency

development encourages continuous review and updating of the ideas to be included as

important. It will be useful for new directors, or for those who aspire to be directors, as well as

for boards and other hiring and evaluating authorities. As other competency sets arise, they can

be compared to these to see whether they hold up over time and in other library contexts.

Issues in Competency Development

Competency use is hampered by definitions (or lack thereof) of what exactly is a

competency. In the review of literature, a wide variety of definitions were seen. Many authors

proposed their own definitions of what a competency is and even more often, no attempt was made to define the ideas expressed as competencies. Several studies reviewed here developed competencies through research, but many more articles provided no information as to how the competencies proposed were developed. Likewise, some of the lists defined the concepts they were presenting, but others used non-standard terms or vague words without a clear sense of their meaning. A lack of understanding of the basic aspects of a competency set – definition and method of development – must necessarily lessen the impact a list might have for the profession. Part of the value of the final list created in this study was the transparency of the work, the definition of competency developed, the definitions for each individual competency, and the mixed-methods research which drew ideas from a number of different groups. Knowledge of the background of competency development is important in assessing whether the final result will be useful.

The population examined in developing competencies also plays an important role in the final outcome. The choice of subjects used in this study is only one way to develop a good set of competencies; future subjects can be chosen in other ways to compare the competencies developed. The need and use for the competencies should first be identified to provide parameters to be used in the creation of a set. In this study, the intent was to generate a competency set that could be useful for public library directors. So the focus was to select competency ideas honed toward that audience. But competencies for other jobs within the library, even other managerial, supervisory, or leadership roles in a library, will look at different ways to focus the search for a useful set of competencies. This study focused on competencies for public libraries. While it is likely that directors of other types of libraries have similar competency needs, certainly the different pressures and expectations and community interests of these different communities may lead to a final competency list different than it would be for

public libraries. And certainly other jobs within a library, even managerial ones, will look different than competencies established for directors. In some public library contexts, there may be overlap in job responsibilities, and other managers may have skills to compensate for a director weaker in some competencies. But it is ultimately a director's responsibility to demonstrate the important job-specific competencies in a library whether directly or through staff.

Amu good research design should look at both the literature and those doing the job for which competencies are being developed. Defining the group and developing a valid sample will raise issues of inclusion in the study. Strategies will need to be developed to ensure a good selection of those who should be in the sample population as part of the research design. Random selection of participants is a primary principle for sample selection. This can be accomplished in a variety of ways. Defining the population the researcher wants to examine becomes the issue, and determining how best to draw a random sample from the population is not an easy problem.

For this research study, the objective of the final competency set was to be useful to help public library directors to be the best they can be for their libraries. And the goal was to find directors who were already "best" or successful in their jobs. There is no official ranking of all public library directors across the country done by the profession and no standard definition across libraries of what constitutes an ideal for these directors. There can be many different ways of approaching this issue and identifying directors who have been successful in their jobs, including using snowball sampling or some other way of selecting directors who may be defined as "successful." To be more objective in the selection process, in this study the directors of successful libraries were assumed to be successful. Of course, this may not be accurate in all cases – good libraries can emerge from a variety of causes and a poor director may be in charge

of a good library. But the assumption in this study was that a bad director, as defined by the Board members or city managers who hire directors, would not be allowed to stay in a good library and chance diminishing its reputation. Overall, good libraries are very likely led by good directors. The HAPLR index identifies 15 items (including expenditures per capita, cost per circulation, and FTE staff per 1,000 population http://www.haplr-index.com/rating_methods.htm) to determine what is a good library. These are used to rank public libraries within each state, and a separate ranking of the top ten libraries across the country in each of ten population categories is given. The directors included in the final, Delphi, step of the study came from this list of the 100 top libraries. When other competency lists are created for public library directors, other groups could be used and may potentially bring different views on the most important competencies for this job. One important differentiator may be size of the library. In a large library, competencies may be distributed among staff members, whereas in very small libraries, the director may not only need to embody all the competencies but may also need to possess many technical skills as well.

Still there are likely to be some competencies that are maintained over time. It would be foolish to forget our history and leave behind ideas that are still relevant. Some continuity is desirable in changing lists over time or looking at competencies with different foci. "When well done, they can define a framework for library practice that encompasses the solidity of tradition and the flexibility to absorb future shock," says Gutsche (2010, p. 28). And this consistency, looking to the future of the profession, is evident in the competency lists examined in this paper, which included many overlapping competency ideas. This foundation of tradition can help professionals, including directors, to meet the changes coming in the field. Emphasizing the importance of flexibility in the development of competencies will concurrently allow libraries to meet new challenges and fill new needs from their communities.

<u>Competency Training Development</u>

Identifying a set of competencies is an important first step in the process of inculcating them in people. Using these competencies in education and training programs will be valuable for the librarian participants is the next stage of competency work. Without this step, the work done to develop them has no meaning; competencies are more than ideas on paper, they need to be developed through training programs to be useful to the profession.

There are different ways of developing competencies in training. Dubois and Rothwell (2004) outline one strategy for competency training using a Strategic Systems Model (SSM):

- Front-end needs analysis

- Assessment and planning aligned with the organization's strategic goals and plans

- Competency model development

- Curriculum planning

- Learning intervention design, development, and delivery

- Evaluation (p. 50).

Burke (2000) outlines a competency development program for organization-wide training in a health care environment as follows:

- Define a path to competency and orientation

- Establish a baseline

- Implement organization-wide policies procedures and templates

- Assess and reinvent the general orientation

- Assess and improve department and job orientation.

Cuddy and Medeiros (2002) developed a training program to help library staff learn core competencies by pursuing a three-stage process:

- Data gathering and analysis

- Course design

- Evaluation.

The computer field has outlined processes for competency-based training, including one system outlined by Tompkins and Daly (1992) to meet the needs of an employer:

- Job analysis

- Skill requirements

- Evaluation criteria

- Competency test

- Identify training

- Focused training (p. 46, Figure 1).

This is described as a flow chart, and when the final step is reached it loops back to competency test and begins again.

While there may be variations in the way people have outlined ideas for using competencies in training, all the above essentially cover the same basic strategies. The first step of an effective competency-based training program is to identify and define the competencies. These become the goals for the training. They should be provided to the participants, who will know what they will be expected to learn over the course of the training. The next step is usually a pre-training assessment. It is important to find out what skill levels participants have prior to training. As with any assessment, validity and reliability is important in the development of the

pre-training assessment to ensure it will measure the true competency and the changes that will be reflected after training.

The next step is the focused training. A problem common to many of the training programs described in the earlier literature review for this study was that often training programs had no stated goals, so concrete achievements could not be measured. In a competency-based training program, all aspects of the training – theoretical and practical – will be aimed toward achieving the agreed-upon goals. The pedagogical structure of an individual training program will depend on the context and the environment of the program. Training within a single organization, or online, or with librarians across the country, will all require different strategies. But a focus on active learning involving the librarians in the training will resonate with working professionals. Showing the participants how to use skills and knowledge they already possess, and helping them build on their current skill set should guide the strategy of educational program planning.

The final step in the process is post-training assessment. It is not enough to provide information and an opportunity for learning. In a competency-based training system, it is necessary to assess student learning and progress at the end of the training. If at the conclusion of the training program the librarians have not improved their skills, the program was ineffective and needs to be adjusted to address the goal competencies more closely. No library has extra funds available to spend on useless training, and no librarian has extra time to spend on training programs that will not help him/her to improve in the necessary competencies. It is important to show a return on the investment the participants and their libraries make in training. A well designed competency-based training program can do that. The importance of the assessment piece of a training program cannot be overlooked. Today, most evaluations are done with self-assessment Likert scales immediately following the training session. Hunt and Baruch (2003)

106

recommend the pre-training assessment be done six weeks prior to the session and the post-training assessment be done six months after the session, a course they followed in their own study (p. 734). This gives participants an opportunity to absorb the lessons of the training, and to have a better understanding of whether it has had an effect on their work lives, so the assessment can measure any real improvement and initiate a new cycle of improvement.

Training for Soft Skill Competencies

"Trainers, as well as some line managers, generally prefer to think training is 'good' whether it accomplishes anything measurable or not" (Pine & Tingley, 1993, p. 55). This attitude, particularly toward the softer skills some competencies present, may be prevalent but is not necessary. Soft skills, those not easily defined and measured, are important for leaders to possess to be successful in public libraries and they need to be included in a competency-based training program. Several of the competencies developed in this study are soft skills, but highly valued by the participants. As with other competencies they can be defined so their meaning is clear, and those definitions can be structured to be measurable in a training program. Some of the softer skills in this study were:

- Commitment to the profession: continuing education, attending conferences, writing about programs and advances; advocate for the profession;

- Self-awareness: understanding your own motivations, knowing your own strengths and limits

- Emotional intelligence: understanding your emotions and ways to handle them productively

- Credibility: building trust in others; doing what you say you will do; being consistent in speech and actions

- Diplomacy: even-handed behavior; helping others to feel like their views are heard.

Whether or not a person is able to become an expert in a softer skill may not be the focus of training; showing awareness of and an improvement in these softer competencies may be sufficient for the training to be considered successful, and may be sufficient for the participant to be successful on the job. Establishing these boundaries and the parameters of what will constitute a successful "learning" outcome will be important part of designing a training program, and will necessarily be individualized to meet the context of the training.

For example, the idea of training someone who is perceived not to be empathetic would be complicated. A training definition may be established that included encouraging the director to develop a routine of asking other people how they are or asking people about their day or their work. The training participant may not "feel" more emphatic about her staff members; but in acting the part of an emphatic manager, the outward actions of behaving in a more emphatic manner may be sufficient to be successful in a leadership position. Legitimacy becomes difficult to assess, but certainly training should encourage a leader to behave authentically within the boundaries of the job requirements. Assessment of the participant success can be established in the training program development. Participants who are unable to learn to improve on the important competencies should consider whether they are right for the job of public library director.

Establishing training programs for soft skills is important for director, as these are the skills they may most need to lead a library but may not feel comfortable working with in their professional lives. Ganzel (2011) described the need for highly skilled professionals who are confident in their more traditional "hard" skills to also develop the softer skills of communication, collaboration, negotiation; she noted that these skills are difficult to learn but nonetheless important. She suggests carefully defining the training process basing skills on

108

observable behaviors in order to make these soft skills more explicit and more easily understood by participants (p. 59).

Hunt and Baruch (2003) outline a ten point strategy to follow in deciding whether soft competencies should be included in a training program (p. 748-749). They start by deciding whether the skill in question is actually definable; if not, they argue that it cannot by definition be included in a competency-based program. They walk through the process, deciding whether there is actually a way to learn the skill, whether it can be reinforced and rewarded in the workplace, and whether it will improve the overall performance of the organizational team. Clearly, soft skills can be an important part of a competency training program, and to reject them from training of public library directors because they present some additional effort on the part of the trainer would be a disservice to the directors.

Training for the Competencies in this Study

Using the set of competencies developed here in the training of new or aspiring directors in public libraries will give the profession a place to start in providing some common ground in both defining what it means to be a successful public library director and in establishing a clear set of goals to be achieved through training. This consistency has not emerged from the current training programs established in the profession to this point; and while this set of competencies will undoubtedly be altered and adjusted to meet different needs, and outcomes, this set of 19 can serve as a satisfactory place to begin.

It would be possible, and useful, to take the definitions developed as part of this study and to build specific tasks to allow the competency to be understood in the content it will be used. One example is a competency making it to the final list: Enthusiasm. In this study, it was defined as "optimism, positive emotional connection." On its own, this may be difficult to

assess whether a person has this competency, or has developed it in training. But people are perceived to have enthusiasm for their jobs, or not; and this can be evaluated, as it was on a study by Jospehson and Vingard (2007). Although not a study to measure enthusiasm explicitly, these researchers assessed "zest for work" which they defined as enthusiasm and satisfaction that individuals showed for their job (p. 225). In this study, the participants self-reported seven factors they thought influenced their zest/enthusiasm at work. Then they identified their own standings on two 100 point scales: their attitude, and the influence at work. Researchers were able to use these self-assessments to categorize the participants into four groups. Using similar methods, trainers will need to set goals for their sessions and library boards will need to adapt, adopt or create useful definitions for their organizations.

It is also important in a job interview to assess enthusiasm for a job. In fact, assessment of enthusiasm (along with other less easily measured competencies) in a job candidate is often an extremely important part of an interview process (Young and Kacmar, 1998). If a person is unable to learn to express enthusiasm for a director's job in a structured way, defined by the needs of the organization, s/he could self-select out of that area of the profession. It is possible to evaluate the presence of enthusiasm in a variety of situations. . For example, Daido, Hamm, Ito, Makino, and Ito (2011) researched the possibility of a person to identify enthusiasm while listening to a singer with no other cues (no visuals, etc.). Participants in soundproofed rooms were asked whether a singer was singing normally or with enthusiasm. Almost every participant was able to make a correct judgment (p. 36). While singing is not like leading a library, the idea that some of these less concrete competencies in the final competency list can be defined in ways that allow for measurement of their existence and improvement is important.

Emergent Competencies for the Library Director

Including the practitioners in this study was a way of ensuring important ideas not discussed in the literature, but necessary for directors to know, were included. Some of these competencies may be considered soft skills, but obviously are valuable. Incorporating the ideas of people who are actually doing the job, not just ideas from people observing it from a distance, ensures these concepts are not overlooked or forgotten. Many people developing sets of competencies in the literature do not have the experience of actually being managers or directors, and do not truly understand the full range of responsibilities a director must carry out.

One idea that emerged from the directors in this study was that of Advocacy, several directors felt strongly about it. One participant summed it up by saying: "Librarians and library directors simply MUST come out of their shell and start advocating. Let's break the stereotype of the shy, quiet, retiring librarian, and make it real." This competency was not mentioned in the initial literature search of leadership competencies, but is clearly important for public library directors as the needs of libraries change. Directors need to be able to fight for their library's needs in an atmosphere of decreasing funds.

Advocacy skills have been identified by two recent ALA presidents (Camila Alire and Molly Raphael) as one of the primary issues of importance to librarians today, particularly with increasing budget cuts looming as a problem for all libraries (Alire, 2010; Leaf, 2011). And with incoming ALA President Maureen Sullivan's commitment to continuing President Raphael's work on community building, it seems that advocacy will continue to be a prominent issue within the profession. Recent Public Library Association (PLA) President Audra Caplan has also written about the importance of advocacy for library leaders, taking a very strong stance: "If we do not create leaders who understand the importance of advocacy, we cannot be successful" (2010, p.5). These current leaders in the profession value advocacy, as did the public library directors in this study.

Thinking broadly about the needs of public library directors necessarily means thinking of new ways to identify those skills most needed in a changing environment. The new demands and unexpressed needs communities bring to public libraries means that library directors need to think in new ways. It is not sufficient to focus on the traditional competencies although those are clearly important, the profession needs to be thinking about growing and expanding views of the competencies necessary for directors.

One competency eliminated from the final list was Ambition, defined here as "wanting to be successful, want to achieve in the library profession." This was identified by the smallest percentage of participants as important. It would be interesting to do a follow-up study to see whether ambition is truly so little valued across the profession and, if it is the case, why that might be the case. In a presentation on public library director competencies given by the researcher at the 2007 Illinois Library Association Annual Conference, ambition was proposed as a competency and was received with unease by the conference attendees, several of whom offered the opinion that it sounded "too aggressive" for librarians. Is this widespread across the profession? Is this a result of librarianship being a female-dominated profession, where open displays of ambition may be threatening to others? Or is this a result of working in a non-profit field? A follow-up study might begin to find answers to these questions. An alternative explanation might be that this competency is important but not socially acceptable and is often cloaked in more acceptable terms like Assertiveness or Determination.

Previous Experience was another competency that was eliminated early. Prior management experience would seem to be useful for any directors, but either these directors do not believe it is one of the more important competencies, or they collectively have so many years of experience that they do not remember having no management experience and what that was like for them.   Or perhaps they did not consider Experience as a competency in the same way as

other candidates. Information about the experience level of the participants was not elicited in the interests of anonymity. The link between prior experience either in or outside of libraries and its perceived importance by both directors and those with whom they work could be important and might be explored in future research.

Five competencies were added by the participants in the first round. One competency added to the list was Political Understanding, defined as government relations, Board relations, working with City departments, understanding organizational structure." Knowing how to work with government organizations, with city departments, and with library boards would seem to be a basic, and crucial, competency for public library directors in making their libraries successful, yet it did not emerge in the initial content analysis of the study's literature review. The addition of this competency to the list in the Round One process demonstrates the value of working with a group of experienced directors to bring out important data that might otherwise be missed by those who are not directly involved in the day to day work of public library leadership. That this competency was retained through two Delphi rounds and included in the final set is a confirmation of its importance among the group.

Another competency added in Round One was Accounting/Budgeting: "writing and passing budgets, grant writing and administering." Managers at all levels in a library work with budgets and money, but directors are the ones with ultimate fiscal responsibility. Responsibility for budgets is much more complex than the management of money; budgets are planning documents, so working with budgets forces libraries to formulate and clearly state their goals and aspirations for at least the forthcoming financial year. Directors are responsible for leading libraries forward, and budgets are one of the leadership tools they use.

Accounting/Budgeting was eliminated as a competency by participants in Round Two. It may be the case that it was eliminated because accounting and budgeting are responsibilities

113

supported by the competencies of other managers in the library, even though the director has the final say over the budget, and should take responsibility for imposing the planning around a budget. Still it may be insufficient in the minds of these directors to form a core competency of the library director as an individual. Comments by participants on shared responsibility and delegation of duties to other staff seems to bear this out. One participant said: "I tried to select competencies that were essential for the library director. All of these are important, but some can be strengths of staff. The director can lead a great team, not be everything unto herself." Another agreed with this: "Some of these competencies may not be as critical if the Director is willing to be surrounded by strong staff."

Four of the highest rated mean competencies were Integrity, Accountability, Customer Service, and Credibility. Although these four may not be among the hard skills immediately thought of when considering competencies for public library directors, they form an excellent foundation for public library leadership. In this study, Integrity was defined as "following professional code, being honest, being a role model for how to behave; honesty." As a person in charge of a government public organization, a library director has opportunities to do inappropriate and unethical things within that service. For a director to be deemed successful in the eyes of the community, any deviation from integrity is not acceptable, and the participating directors were aware of the importance of integrity in meeting the expectations of their public positions. One stated, "As I review my answers, I believe ethics, personal integrity and a connection to the community are essential. It is essential to put a face on the library in order to secure its future."

It could be assumed that Customer Service, highly valued by the directors, is a competency more commonly associated with lower-level employees, in particular with those who deal directly with the public. However, one director perhaps encapsulating the view that

114

working in a library is essentially about customer service, no matter what job titles employees might have, stated, "Patrons should always be first. Treat them as if they are the only person in the world, because at that point they are. Look into the future. Know your patrons, and try to have what they want BEFORE they ask for it." The whole focus of a library director is on providing materials and services to the community, making Customer Service central in any planning, advocacy and networking done by the director. It is also very possible that the directors of smaller libraries who participated in this study may indeed be working at the Reference desk or doing Circulation work or providing computer training, so the continuing need for customer service skills may be even more explicit for them.

The comments of one participant support a need for fluidity in the development and delivery of training programs: "The ability to look ahead, adapt, change, expand and contract is becoming of absolute importance." She understood that the skills necessary to be a successful public library director in a fast-changing world might differ from those identified by looking at older lists of competencies or those found useful in practice in the same job a decade ago. That flexibility and ability to work with the material found to be important in this research and the research of others may in themselves be of significant use to directors and those planning for the training and assessment of library directors.

Conclusion

This study employed a research design using two different methodologies to determine a solid foundational set of competencies that public library directors can use to achieve success. The methods used here are not the only way to determine a set of such competencies. Other methodologies can be used to broaden the base of research-informed competencies discussed

115

here. For example, structured interviews might bring out additional information not identified in this study, as they allow a freer flow of ideas from those questioned. Using a Q Method would allow for a ranking of competencies, to help identify those considered more and less important along a scale of all the competencies under consideration. Other research populations can be examined to have a better idea of the competencies relevant in several public library leadership positions. Other groups of library directors and other public library managers should be studied. The issues of size of library and past experience of successful directors can also be examined. Currently there are no research studies on the competencies necessary for support staff managers, who are often responsible for large numbers of staff in a library but receive little or no training in accomplishing that task. This group would be important to round out a complete view of the competencies necessary for good leadership in public libraries.

This study, however, combines a review and close analysis of the literature on manager/leaders in libraries to see where we have been and what kinds of ideas we hold valuable as a profession, with the refinement of these ideas by people who are actually engaged in the work being studied in this research – the work of public library directors. Mixing these two methods in this way has helped to produce a useful set of competencies for public library directors into the next decade. This set of competencies can serve as a basis for training and development and for self-assessment and continuing improvement.   It is proposed with the understanding that the nature of competency development is cyclical and encourages continuous review and updating of the ideas listed as the output of such development.

Competencies should not exist in a vacuum; they must also be applied to make them real. This means that competencies should be included in job descriptions for directors when they are hired and evaluated in any regular performance assessment processes carried out for directors. Clearly defined competencies based on library needs allow a board to assess a

director's performance and also to make good hiring decisions when bringing in new directors. They need to be factored into the design of training programs for aspiring directors, at the beginning of any such training as the specific competencies to be acquired during training and then evaluated after the training to confirm that participants have indeed acquired the competencies and can demonstrate their improvement.

Which of these competencies is the most important? Where should people start? Using contingency theory in future training prospects will give those aspiring toward director jobs the flexibility to address the needs of particular libraries and particular communities. "There is no one personality type or approach that ensures success, but there must be a good fit with the community, the board, and the staff," said one participant in the study. Building on these competencies can help directors to meet situations that will arise, requiring continued flexibility. "This is hard to narrow down because those priorities can change depending upon the situation," said another. It is not necessary to identify any individual competencies as the most important in this group; using all 19 in different ways will allow directors to be strong in the areas needed by their libraries.

The competencies developed here are not perfect for all situations. From a pool of 100 potential participants, the initial sample was 23. While this final group of 23 participants is not large, it is large enough for the application of Delphi study method. None of the participating directors were selected as participants because they were assumed to be typical. They were identified through a process that was intended to gather a group of directors of successful libraries. The ideas emerging from this study cannot, therefore, be assumed to be typical of all public library directors, but are the ideas of successful public library directors that should be relevant for other directors.

Another potential problem is the number of competencies in the final set; 19 competencies might be considered by some too large a list to be of practical use. It would be difficult for any one person to be highly skilled in 19 different things. A much more practical step would be to identify those competencies needed at the time or in the specific organization, and hire a director possessing them, or to assist a director in building those competencies. Then the other competencies on this list can be shared among others in the library. Ideally, they could all be encompassed in one person, to a greater or lesser degree; but if this proves to be too difficult distributed excellence in competencies across more than one person could be satisfactory for the library. It is the contention of this researcher that it is not an unwieldy list, particularly when compared with other much lengthier lists found in the literature review in this study; and that the 19 different competencies are appropriate for use in the development of library directors and in the evaluation of their performance. While it may or may not be possible to be highly skilled in all 19, it should be possible to have an understanding of all of them, and to build skills to complement the needs of the library. In developing training programs the list could either be used in its entirety for more comprehensive leadership training programs, or broken into smaller groupings that link similar topics for smaller, more focused training purposes.

No director, current or aspiring, will develop perfect mastery of all competencies identified as important for them to know. What is important is that standards be established to guide directors and those who aspire to become directors, and those hiring and assessing directors, so that they have the best chance of success in the practice and aspirations – for themselves and for their libraries. As public libraries around the country are engaged in a struggle for survival, it is vital that there are competent, confident and successful directors to lead libraries into a new future of service to their communities. Using this final set of 19

research-informed competencies should equip directors of public libraries for professional

success and thereby help libraries to serve their communities as effectively as possible.

APPENDIX A

LIS leadership competencies developed through research

Hernon, Powell & Young (2003)

- credibility

- even-handedness

- self-confidence

- commitment to a set of values

- integrity

- stress management ability

- multitasking

- focus on change

- exercise of good judgment

- ability to articulate a direction for the library

- communication skills

Young, Hernon & Powell 2006

- successful in securing resources, funds, technology, staffing, etc.

- good interpersonal skills

- honest

- build partnerships within the library or across campus

- a passion for libraries and librarianship

- comfortable with change

- strong communication skills -- verbal and written

- recognize interpersonal communication essential at all level

- build working relationships with others

- articulated vision that inspires others

Winston & Dunkley (2002)

- stewardship and donor cultivation

- previous development experience

- written communication skills

- oral communication skills

- interpersonal skills

- previous management experience

- organizational skills

- evidence of being a team player

- leadership skills

- strategic planning and experience

- presentation skills

- persuasion

- vision

- previous budget experience

- flexibility

Hernon and Rossiter, 2006

- cognitive ability to deal with complex scenarios/situations

- realistic understanding of oneself

- knows where he or she is going

- sense of humor

- respect individuality and diversity

- stable temperament

- integrity

- comfortable in making judgment calls

- comfortable with ambiguity

- flexible in adapting to change or overcoming obstacles

- skill at diagnostic, strategic, and tactical reasoning

- visionary-able to build a shared vision and rally others around it

- motivate people to develop and adhere to a shared vision

- commitment to job, organization, institution, and profession

- articulate direction for the library

- optimism (even in the face of failure)

- treat people with dignity/ respect

- attract, build, and retain talent

- good interpersonal/people skills

- keep organization focused on high quality service

- exercise good judgment

- good listener

- ability to function in a political environment

- effective in leading change

- develop and foster partnerships

- collaborative

- build rapport with a wide circle of people

- resonance (inspiring people to work together to solve problems, inspiring excellence)

Helmick & Swigger (2006)

- build positive staff- patron relationships

- manage resources, facilities, people, and the political landscape

- respond to customer needs and demands

- apply concepts of user- oriented customer service

- recruit, select, train, supervise, and evaluate paid and volunteer staff

- apply creative thinking and problem-solving skills

- exhibit leadership

- identify who the customer is

- use time management skills to manage time and minimize stress

- articulate the value of positive attitude

- conducted meeting

Murphy (1998)

- communication

- persistence

- focus

- transparent values

- organizational learning

- empowering others

- vision

Ameen, 2006

- innovative

- creative

- imaginative

- visionary

- committed professional

- have strong and timely decision powers

- build shared plans

- developed team spirit

- adapts to change

- open to new ideas

- articulate

- results oriented

- high professional morale

- self-confidence

- have credibility.

LIS leadership competencies compiled by means other than research

Schreiber & Shannon, 2001

- self-awareness

- embracing change

- customer focus

- stands to take in the future

- collaborative spirit

- bias for courageous action

Sullivan, 1999

- professional skills

- commitment

- collaboration

- investment of time and energy

- persistence

- continuous awareness of change and opportunities

Nicely & Dempsey, 2005

- confidence

- decisiveness

- savvy at building networks

Hernon and Schwartz, 2006

- analyze and solve problems

- demonstrate team building skills

- articulate direction for the organization

- function effectively in a political environment

- manage and shape change as well as organizational culture

- create an environment that fosters accountability

- show reasonable risk taking skills

- demonstrate emotional intelligence

- self-awareness

- self-regulation

- motivation

- empathy

- social skill

- communication

Riggs, 1997

- excellent strategists

- strong planners

- synthesizers

- change agents

- visionaries

Weiner, 2003

- power

- diversity issues

- change agent

- boldness

- informed risk taking

- widespread consultation

- consensus building

Unaeze, 2003

- effective communication written and oral

- interpersonal

- flexible and adaptable

- negotiation

- organizational

- time management

- courageous

- decisive

- dependable

- judgment

- sensibility

- loyalty

- enthusiasm

- endurance

- initiative

- approachable

- creative

- tenacious

- honest

- good service for their departments

- follow through on ideas and assignments

- time management skills

Osa, 2003

- creating and communicating a vision mission and goal(s)

- creating and maintaining a positive and nurturing workplace climate and culture

- setting expectations

- being task centered

- being the employee centered

- motivating

- delegating

- communicating

- staffing

Howze, 2003

- skills and/or education and collegial management

- reference experience in more than one library

- understanding of service quality and how it is measured

- open and honest receptivity to cultural diversity

- awareness of trends affecting both librarianship in higher education

- ability to direct the work of highly educated people

Orenstein, 1999

- build a shared vision for the library

- put the needs of the customers before the politics of the organization

- build cooperation among all levels of employees

- communicate

- emphasize teamwork

- build trust

- redesign processes and attitudes

- train for quality

- develop leadership skills

- managed by fact

- motivate staff by making work enjoyable

von Dran, 2005

- ambition and energy

- the desire to lead

- honesty and integrity

- self-confidence

- intelligence

- job-related knowledge

- self-monitoring

Moniz, 2001

- delegate

Wyrick & Brothers, 2003

- dynamic

- integrity

- vision

McAbee, 2002

- let employees help creative vision and defined goals

- encourage professional growth

- appreciate and praise employees

- delegate power and authority

- earn respect and loyalty

- raise morale

- supplying needed information and resources

- handle conflict constructively

- inspire confidence and trust

- provide clear job descriptions and expectations

- initiate a team approach

- question employees about their needs, wants, and concerns

Lester, 1990

- caring

- discipline

- self-confidence

Osif, 2004

- transformation

- training

- courage

- change agents

Deane, 2005

- want to succeed

- have a central vision

- share the power

- be strategic

- keep a wide open mind

- don't back off from conflict

- make some key commitments

- act with conviction

- exceed expectations

- harness respect

- favorite the best

- make more leaders

- don't confuse scholarship with leadership

133

- be an intrapreneur

- make your cause their cause

- bet on the future

- take responsibility

- be undeterred

- raise the bar

- go to the community

- lead from the outside

Frost, 2005

- vision

- passion

- humor

- encouragement

- support

Holcomb, 2005

- leading conflict

- leading change

- leading difference

- diversity

Helmick & Western Council, 2004

- vision

- management

- empowerment

- diplomacy

- feedback

- entrepreneurialism

- personal style

- personal energy

- multicultural awareness.

Wedgeworth, 1989

- ability to express ideas

- vision into reality

- communication

- possibilities

- vision with confidence

- seizing opportunities

- ambition

Sheldon, 1999

- vision

- successful work with groups

- communication

- motivation

- change

- conflict management, involving others in leadership through mentoring and networking

- ability to make decisions

- the ability to plunge ahead on a project

- to articulate a vision

Lubans, 2002

- imaginative

- independent thinking

- articulate

- passion for filling vision

- followership

Winston, 2001

- diversity

Parker-Gibson, 2003.

- curiosity

- communication skills

- broad education

- tolerance for change

- appreciation/tolerance

- flexibility

- stubborn pragmatism

- genial willingness to spend other people's money

- genial willingness to ask for money

- advocate for libraries and librarians

- sense of humor

Shoaf, 2004

- articulate a vision of the future

- know how to coach

- live the service ethic

- put people first over planning and strategies

- create a culture of leadership in the library

Frequency of mention of competencies in the LIS literature, with definitions

Competency and frequency from lit review	Definition created in this study
Vision (25)	looking at the future and see where the library can go; articulating directions
Flexibility (23)	changing course when necessary, changing plans to be successful
Communication skills (22)	speaking, writing, listening; understanding your message and conveying it to others
Teamwork (13)	working as part of the group, not always leading it
Interpersonal skills (13)	effectively working together with others of different levels or different positions (staff and public); good social skills; building rapport
Employee centered (10)	focusing on staff needs to be sure they have what they need to get their work done; creating a positive environment for staff
Risk taking (10)	not taking the easy way; taking a chance of failure; bold or courageous action
Customer service (10)	both internal and external; remembering that patrons are the focus of the library
Multicultural awareness (9)	bringing in staff to reflect community; providing resources for diverse community members; not allowing overt discrimination in library
Problem solving (9)	making decisions and use good judgment
Motivating others (9)	bringing forward the best performance in others; keeping people going toward goals, even when things are hard or boring
Commitment to the profession (8)	continuing education, attending conferences, writing about programs and advances; advocate for the profession
Integrity (7)	following professional code, being honest, being a role model for how to behave; honesty
Creativity (7)	seeing different ways to accomplish goals; bringing forward new ideas
Self-awareness (7)	understanding your own motivations, knowing your own strengths and limits
Ambition (6)	wanting to be successful, want to achieve in the library profession
Previous experience (6)	experience as a manager, or in previous library jobs
Conflict resolution (6)	work with people to get past conflict, cutting off conflict before it gets started or before it becomes toxic; not ignoring conflict - addressing it
Tenacity (6)	staying focused on goals, continuing to work toward goals despite obstacles; persistence

Planning (6)	setting goals and developing strategies to achieve those goals
Personal energy (6)	healthy and active, projecting energy to others, having the strength to get through the daily job requirements; dynamic
Accountability (5)	taking responsibility for results - positive and negative
Delegation (5)	handing off both responsibilities and sufficient authority to accomplish necessary tasks
Self-confidence (5)	knowing you can handle the responsibilities of your job and life
Emotional intelligence (5)	understanding your emotions and ways to handle them productively;
Mentoring (5)	helping others learn by showing them the way, modeling behavior
Demonstrating leadership (5)	being perceived as a leader; taking charge of situations effectively
Resource management (4)	finding money, facilities to accomplish goals;
Time management (4)	multitasking, being punctual, following schedules
Sense of humor (4)	keeping a situation light; looking at the funny side of things; laughing at self
Credibility (4)	building trust in others; doing what you say you will do; being consistent in speech and actions
Enthusiasm (3)	optimism, positive emotional connection
Modeling values (3)	being transparent and committed to values; acting on values
Intelligence (3)	IQ; education, cognitive abilities
Diplomacy (3)	even-handed behavior; helping others to feel like their views are heard

Round One Delphi

1. Introduction

Thank you so much for participating in this study!

This is a Delphi study. In a Delphi, participants are asked to share their ideas on our topic - competencies for public library directors. I will collect your answers, then resend the collected ideas out to everyone to evaluate. We will repeat this process until the group has decided on the final set of competencies they believe are most important for public library directors.

If you have questions at any time during the study you can send me an email to me at wilkinsm@simmons.edu. You can also contact the University of North Carolina at Chapel Hill Office of Human Research Ethics by calling (919) 966-3113 or by email: IRB_Subjects@unc.edu with questions about the study ethics.

Thank you again for your participation!

PAGE 2

2. Demographic questions

I would like to find out a little bit about everyone who participates in the study, to help draw better conclusions about the overall answers.

Nothing you say will be individually reported - the point of the study is to discover the ideas important to the whole group.

At any time during this process, you may stop answering the questions and cease your participation for any reason.

1. Your name will not be included in any answers the other participants see; it is collected only for me to track the participants who answer each round of the Delphi study, or to ask you a question, if necessary, when looking through the answers.

 Name:

Email Address:

2. Your gender:

○ Female

○ Male

3. How many years have you worked as a librarian?

○ less than one year

○ 1 - 3 years

○ 4 - 7 years

○ 8 - 15 years

○ 16 - 20 years

○ 21 - 25 years

○ 26 - 30 years

○ more than 30 years

4. How many years have you been a public library director? (total years, not just at this library)

○ less than one year

○ 1 - 3 years

○ 4 - 7 years

○ 8 - 15 years

○ 16 - 20 years

○ 21 - 25 years

○ 26 - 30 years

○ more than 30 years

3. Your competency list

On this page is a list of competencies from the library literature, along with a definition of each.

For the purposes of this study competencies are knowledge, skills, and abilities; but also include less tangibly measurable attainments important for a director in public libraries.

Please go through this list and identify the ideas you believe are the MOST important for public library directors into the next decade. Your ideas may be drawn from your personal experience, from the example of other directors, or from ideas you have learned elsewhere.

After this question, you will be given a chance to add and explain any choices you are making if you wish to do so.

1. This is a list of competencies found in the literature, which may be important to public library directors.

Please go through this list, and indicate the items you believe are the most important for public library directors over the next decade. Your opinions may be based on your personal experience, examples from other directors, or on ideas you have learned elsewhere.

I know this list is very long and formidable looking! Thank you in advance for your patience in getting through it.

☐ • Vision: looking at the future and see where the library can go; articulating directions

☐ • Flexibility: changing course when necessary, changing plans to be successful

☐ • Communication skills: speaking, writing, listening; understanding your message and conveying it to others

☐ • Teamwork: working as part of the group, not always leading it

☐ • Interpersonal skills: effectively working together with others of different levels or different positions (staff and public); good social skills; building rapport

☐ • Employee centered: focusing on staff needs to be sure they have what they need to get their work done; creating a positive environment for staff

☐ • Risk taking: not taking the easy way; taking a chance of failure; bold or courageous action

☐ • Customer service: both internal and external; remembering that patrons are the focus of the library

☐ • Multicultural awareness: bringing in staff to reflect community; providing resources for

diverse community members; not allowing overt discrimination in library

□ • Problem solving: making decisions and use good judgment

□ • Motivating others: bringing forward the best performance in others; keeping people going toward goals, even when things are hard or boring

□ • Commitment to the profession: continuing education, attending conferences, writing about programs and advances; advocate for the profession

□ • Integrity: following professional code, being honest, being a role model for how to behave; honesty

□ • Creativity: seeing different ways to accomplish goals; bringing forward new ideas

□ • Self-awareness: understanding your own motivations, knowing your own strengths and limits

□ • Ambition: wanting to be successful, want to achieve in the library profession

□ • Previous experience: experience as a manager, or in previous library jobs

□ • Conflict resolution: work with people to get past conflict, cutting off conflict before it gets started or before it becomes toxic; not ignoring conflict - addressing it

□ • Tenacity: staying focused on goals, continuing to work toward goals despite obstacles; persistence

□ • Planning: setting goals and developing strategies to achieve those goals

□ • Personal energy: healthy and active, projecting energy to others, having the strength to get through the daily job requirements; dynamic

□ • Accountability: taking responsibility for results - positive and negative

□ • Delegation: handing off both responsibilities and sufficient authority to accomplish necessary tasks

□ • Self-confidence: knowing you can handle the responsibilities of your job and life

□ • Emotional intelligence: understanding your emotions and ways to handle them productively

□ • Mentoring: helping others learn by showing them the way, modeling behavior

□ • Demonstrating leadership: being perceived as a leader; taking charge of situations effectively

□ • Resource management: finding money, facilities to accomplish goals

□ • Time management: multitasking, being punctual, following schedules

□ • Sense of humor: keeping a situation light; looking at the funny side of things; laughing at self

□ • Credibility: building trust in others; doing what you say you will do; being consistent in speech and actions

143

- ☐ • Enthusiasm: optimism, positive emotional connection
- ☐ • Modeling values: being transparent and committed to values; acting on values
- ☐ • Intelligence: IQ; education, cognitive abilities
- ☐ • Diplomacy: even-handed behavior; helping others to feel like their views are heard

2. You can add in comments about any of your choices, if you wish.

3. If you have ideas about other competencies you believe are important for public library directors, you can put them here. (These will be added to the list all participants will rate in the next round of the Delphi.)

4. Thank You!

Thank you so much for your participation!

All the answers from participants in this round will be compiled, then I will send you another link to a Survey Monkey page (like this one) and ask you to rate the competencies decided to be most important in this round.

Remember - everyone who completes the entire study will be entered into the random drawing for one of two $50 Amazon.com gift cards!

If you have any questions, contact me at mary.wilkinsjordan@simmons.edu.

Delphi Instrument, Round Two

1. Welcome to the second round of the Delphi study!

Thank you for your assistance with this research study.

In this round, you will be presented with all the competencies the group said was important in the first round. You will rate them according to the level of importance you believe they have for public library directors into the next decade.

Remember, the focus of this study is to narrow the ideas to those most important.

If you have questions at any time during the study you can send me an email to me at wilkinsm@simmons.edu. You can also contact the University of North Carolina at Chapel Hill Office of Human Research Ethics by calling (919) 966-3113 or by email: IRB_Subjects@unc.edu with questions about the study ethics.

Thank you again for your participation!

1. Your name will not be included an any answers the other participants see or any reporting; it is collected only for me to track the participants who answer each round of the Delphi study, or to ask you a question if necessary when looking through the answers.

Name:

Email Address:

2. Rating the Competencies

In this section, you will rate the competency ideas voted as most important from the first round, along with other ideas suggested in that round by the participants.

This question will continue on to the next page. I know this looks like a lot of information to wade through, but it should only take a few minutes.

I appreciate the time you are taking to share your opinions here!

1. **Please rate each idea on a scale from one (not at all important) to seven**

(absolutely necessary).

Focus on those most important to public library directors over the next decade; the point is to narrow down the list to those competencies which will be most useful and necessary for directors.

3. Additional Information to Share

1. You can add in any commentary about your choices here, if you wish.

4. Thank You!

Thank you for your participation!

I will collect all the ratings from this round, and send back out the next round of Delphi competencies rated most important.

I anticipate it is likely the third round will complete this study - with everyone in agreement on the most important competencies for directors over the next decade.

Again, everyone completing this study will be entered in a random drawing for one of two $50 Amazon.com gift cards!

If you have any questions, please let me know. You can reach me at mary.wilkinsjordan@simmons.edu.

Thank you so much for your help in discovering more about this important topic. I do appreciate your time and work here.

APPENDIX F

Initial Recruiting Email

Recruiting Email text:

Can you help?

I am looking for successful public library directors to participate in a Delphi research study, to help identify a set of competencies for upcoming public library directors over the next decade. In a Delphi study, a group of experts are asked to share their ideas on a subject, honing in on the most important parts of the idea in repeated rounds of sharing. This study is looking at the top public libraries, as ranked by the HAPLR index, and asking the directors of those libraries to share their ideas on the most important competencies for new and aspiring public library directors.

Everything will be done online, and I estimate each round will take you between ten and twenty minutes to complete. I am assuming there will be approximately three rounds necessary for everyone to come together on the final set of competencies, although we will not know that until we finish.

For the purposes of this study competencies are knowledge, skills, and abilities; but also include less tangibly measurable attainments important for a director in public libraries. In the first round of the Delphi, there will be a list of competencies from the library literature, along with a definition of each. You will be asked to go through this list and identify those you believe are the most important for public library directors into the next decade. Your ideas may be drawn from your personal experience, from the example of other directors, or from ideas you have learned elsewhere. You can also share any other ideas you believe would be important to add to the list. You can go to the first round here: https://www.surveymonkey.com/s/272LLZR.

In the second round, you will be presented with all the competencies the group said were important in the first round. You will rate them according to the level of importance you believe they have for public library directors - now and into the next decade. (A rating and checklist will be given to you for each competency.)

Any subsequent round will proceed the same way as round two.

All participants who complete the final round of the Delphi will be entered into a random drawing to win one of two $50 gift cards from Amazon.com. Your information will be entirely confidential. All results will be combined into one answer pool at the end, with no identification of any individual participant or individual answers. At any time during the study you can stop participating without any consequence.

To begin your participation, here (again) is the link to the first round:

https://www.surveymonkey.com/s/272LLZR

If you have questions at any time during the study you can send me an email: Mary Wilkins Jordan, Assistant Professor at Simmons College Graduate School of Library and Information Science: wilkinsm@simmons.edu. You can also contact the University of North Carolina – Chapel Hill Office of Human Research Ethics, which is overseeing this study, with questions about the study ethics. They can be reached at 919-966-3113.

Thank you for your consideration and assistance with this important subject.

Mary

Delphi Second Round Mean, Standard Deviation, Median, Mode

2nd Round Competencies	Mean	Standard Deviation	Median	Mode	
Diplomacy	5.95	.84	6	6	
Enthusiasm	6.0	.81	6	6	
Sense of humor	5.36	1.04	5	5	
Demonstrating leadership	6.45	.800	7	7	
Delegation	6.13	.71	6	6	
Accountability	6.86	.35	7	7	
Planning	6.36	.65	6	6/7	
Integrity	6.90	.29	7	7	
Risk taking	6.04	1.13	6	7	
Credibility	6.72	.55	7	7	
Resource management	6.18	.73	6	6	
Creativity	6.0	.61	6	6	
Customer service	6.77	.42	7	7	
Interpersonal skills	6.40	.66	6.5	6	
Communication skills	6.45	.50	6	6	
Flexibility	6.45	.67	7	7	
Vision	6.45	.67	7	7	
Political understanding	6.40	.66	6.5	7	
Maturity	6.0	.92	6	7	
Library knowledge/value	5.81	.90	6	6	
Accounting/budgeting	5.63	.90	6	5/6	
Problem solving	6.27	.82	6.5	7	
Advocacy skills	6.40	.66	6.5	7	

APPENDIX H

Delphi Third Round Mean, Standard Deviation, Median, Mode

3rd Round Competencies	Mean	Standard Deviation	Median	Mode	
Enthusiasm	6.0	.79	6	6	
Demonstrating leadership	6.39	.72	6.5	7	
Delegation	6.04	.63	6	6	
Accountability	6.52	.51	6.5	7	
Planning	6.17	.77	6	6	
Integrity	6.56	.58	7	7	
Risk taking	6.0	.85	6	6	
Credibility	6.52	.51	6.5	7	
Resource management	6.0	.95	6	7	
Creativity	6.0	.90	6	5/7	
Customer service	6.56	.50	7	7	
Interpersonal skills	6.34	.71	6	7	
Communication skills	6.47	.66	7	7	
Flexibility	6.13	.69	6	6	
Vision	6.39	.65	6	7	
Political understanding	6.39	.78	7	7	
Maturity	6.13	.75	6	6	
Problem solving	6.04	.70	6	6	
Advocacy skills	6.30	.82	6.5	7	

ANOVA testing of Years as a Librarian

8 – 14 years $n = 4$
21 – 25 years $n = 5$
26 – 30 years $n = 4$
More than 30 years $n = 10$

Enthusiasm

	Mean	Stnd Deviation
8 - 14 years	6.33333	0.57735
21 - 25 years	6.6666	0.5164
26 - 30 years	5.25	0.5
more than 30 years	5.8	0.78881

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.649	3	1.883	4.285	0.018
Within Groups:	8.350	19	0.439		
Total:	13.999	22			

Demonstrating Leadership

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.33333	0.8165
26 - 30 years	6.25	0.95743
more than 30 years	6.4	0.69921

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.328	3	0.109	0.186	0.904
Within Groups:	11.150	19	0.587		
Total:	11.478	22			

Delegation

	Mean	Stnd Deviation
8 - 14 years	6.33333	0.57735
21 - 25 years	5.8333	0.40825
26 - 30 years	6.0	0.8165
more than 30 years	6.1	0.73786

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.557	3	0.186	0.420	0.741
Within Groups:	8.399	19	0.442		
Total:	8.955	22			

Accountability

	Mean	Stnd Deviation
8 - 14 years	7	0
21 - 25 years	6.33333	0.5164
26 - 30 years	6.75	0.5
more than 30 years	6.4	0.5164

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.256	3	0.419	1.774	0.186
Within Groups:	4.483	19	0.236		
Total:	5.739	22			

Planning

	Mean	Stnd Deviation
8 - 14 years	6.33333	1.1547
21 - 25 years	6	0.89443
26 - 30 years	6.25	0.5
more than 30 years	6.2	0.78881

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.288	3	0.096	0.140	0.935
Within Groups:	13.016	19	0.685		
Total:	13.304	22			

Integrity

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.83333	0.40825
26 - 30 years	6.25	0.95743
more than 30 years	6.5	0.52705

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.902	3	0.301	0.846	0.485
Within Groups:	6.749	19	0.355		
Total:	7.651	22			

Risk Taking

	Mean	Stnd Deviation
8 - 14 years	6	1
21 - 25 years	5.5	0.4082
26 - 30 years	6	1.41421
more than 30 years	6.4	0.5164

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	3.057	3	1.019	1.723	0.196
Within Groups:	11.233	19	0.591		
Total:	14.290	22			

Credibility

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.33333	0.5164
26 - 30 years	6.5	0.57735
more than 30 years	6.6	0.5164

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.339	3	0.113	0.398	0.756
Within Groups:	5.400	19	0.284		
Total:	5.739	22			

Resource Management

	Mean	Stnd Deviation
8 - 14 years	6.33333	1.1547
21 - 25 years	6.16667	0.98319
26 - 30 years	5.25	1.25831
more than 30 years	6.1	0.73786

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	2.850	3	0.950	1.053	0.392
Within Groups:	17.148	19	0.903		
Total:	19.998	22			

Creativity

	Mean	Stnd Deviation
8 - 14 years	6	1
21 - 25 years	6.33333	0.8165
26 - 30 years	5.5	1
more than 30 years	6	0.94281

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.667	3	0.556	0.646	0.595
Within Groups:	16.333	19	0.860		
Total:	18.000	22			

Customer Service

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.83333	0.40825
26 - 30 years	6.5	0.57735
more than 30 years	6.4	0.5164

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.752	3	0.251	0.972	0.426
Within Groups:	4.900	19	0.258		
Total:	5.652	22			

Interpersonal Skills

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.66667	0.5164
26 - 30 years	6	0.8165
more than 30 years	6.2	0.78881

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.617	3	0.539	1.067	0.387
Within Groups:	9.600	19	0.505		
Total:	11.217	22			

Communication Skills

	Mean	Stnd Deviation
8 - 14 years	7	0
21 - 25 years	6.5	0.54772
26 - 30 years	6.75	0.5
more than 30 years	6.2	0.78881

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.889	3	0.630	1.524	0.241
Within Groups:	7.850	19	0.413		
Total:	9.739	22			

Flexibility

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6	0.89443
26 - 30 years	5.75	0.95743
more than 30 years	6.3	0.48305

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.787	3	0.596	1.190	0.340
Within Groups:	9.516	19	0.501		
Total:	11.303	22			

Vision

	Mean	Stnd Deviation		
8 - 14 years	6.66667	0.57735		
21 - 25 years	6.16667	0.40825		
26 - 30 years	6.5	1		
more than 30 years	6.4	0.69921		

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.578	3	0.193	0.412	0.747
Within Groups:	8.900	19	0.468		
Total:	9.478	22			

Political Understanding

	Mean	Stnd Deviation
8 - 14 years	6	1
21 - 25 years	6	0.89443
26 - 30 years	6.25	0.95743
more than 30 years	6.7	0.48305

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	2.367	3	0.789	1.382	0.279
Within Groups:	10.849	19	0.571		
Total:	13.217	22			

Maturity

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6	0.89443
26 - 30 years	6	0.70711
more than 30 years	6.1	0.73786

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.042	3	0.347	0.596	0.625
Within Groups:	11.065	19	0.582		
Total:	12.107	22			

Problem Solving

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6.33333	0.5164
26 - 30 years	5.5	0.57735
more than 30 years	5.9	0.73786

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	3.056	3	1.019	2.450	0.095
Within Groups:	7.899	19	0.416		
Total:	10.955	22			

Advocacy skills

	Mean	Stnd Deviation
8 - 14 years	6.66667	0.57735
21 - 25 years	6	0.89443
26 - 30 years	6.25	0.95743
more than 30 years	6.4	0.84327

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.053	3	0.351	0.483	0.698
Within Groups:	13.815	19	0.727		
Total:	14.868	22			

Kruskal-Wallis Statistical Testing of Years as a Librarian

Enthusiasm

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	20	20	4	20	7	7	5	7
2	12	12	4	12	6	6	5	6
3	20	20	4	12	7	7	5	6
4	20	12	12	4	7	6	6	5
5	12			4	6			5
6				4				5
7				4				5
8				12				6
9				20				7
10				12				6

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
16.8	16	6	10.4

H = 7.58
df = 3
P = 0.0555 *

Demonstrating Leadership

A: 8 - 14 years n = 5
B: B: 21 - 25 years   n = 4 $n = 4$
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17.5	17.5	7.5	7.5	7	7	6	6
2	7.5	17.5	2	17.5	6	7	5	7
3	7.5	7.5	17.5	2	6	6	7	5
4	2	17.5	17.5	7.5	5	7	7	6
5	17.5			17.5	7			7
6				17.5				7
7				7.5				6
8				17.5				7
9				17.5				7
10				7.5				6

Reset Calculate from Ranks Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
10.4	15	11.1	12

H = 1.13
df = 3
P = 0.7698 *

Delegation

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	21	2.5	21	11.5	7	5	7	6
2	11.5	11.5	11.5	11.5	6	6	6	6
3	11.5	11.5	2.5	2.5	6	6	5	5
4	11.5	11.5	11.5	11.5	6	6	6	6
5	11.5			11.5	6			6
6				2.5				5
7				11.5				6
8				21				7
9				21				7
10				21				7

Reset Calculate from Ranks Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
13.4	9.3	11.6	12.6

H = 0.95
df = 3
P = 0.8133 *

Accountability

A: 8 - 14 years n = 5
B: B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17.5	6	17.5	17.5	7	6	7	7
2	17.5	17.5	6	6	7	7	6	6
3	6	6	17.5	6	6	6	7	6
4	17.5	6	17.5	6	7	6	7	6
5	17.5			17.5	7			7
6				6				6
7				6				6
8				6				6
9				17.5				7
10				17.5				7

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
15.2	8.9	14.6	10.6

H = 2.99
df = 3
P = 0.3932 *

Planning

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	19	19	10	19	7	7	6	7
2	19	19	10	19	7	7	6	7
3	3	3	10	19	5	5	6	7
4	10	10	10	3	6	6	6	5
5	3			19	5			7
6				19				7
7				10				6
8				10				6
9				10				6
10				3				5

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
10.8	12.8	10	13.1

H = 0.82
df = 3
P = 0.8447 *

Integrity

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

	Ranks for Sample					Raw Data for Sample			
count	A	B	C	D		A	B	C	D
1	16.5	16.5	16.5	5.5		7	7	7	6
2	16.5	16.5	5.5	16.5		7	7	6	7
3	5.5	16.5	1	5.5		6	7	5	6
4	16.5	16.5	16.5	16.5		7	7	7	7
5	5.5			16.5		6			7
6				16.5					7
7				16.5					7
8				5.5					6
9				5.5					6
10				5.5					6

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
12.1	16.5	9.9	11

H = 2.37
df = 3
P = 0.4992 *

Risk Taking

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

	Ranks for Sample					Raw Data for Sample			
count	A	B	C	D		A	B	C	D
1	20	11.5	20	20		7	6	7	7
2	11.5	4	11.5	11.5		6	5	6	6
3	11.5	4	20	4		6	5	7	5
4	4	11.5	1	20		5	6	4	7
5	4			11.5		5			6
6				20					7
7				11.5					6
8				20					7
9				11.5					6
10				11.5					6

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
10.2	7.8	13.1	14.2

H = 3.04
df = 3
P = 0.3855 *

162

Credibility

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	17.5	17.5	17.5	17.5	7	7	7	7
2	17.5	17.5	6	17.5	7	7	6	7
3	6	6	6	6	6	6	6	6
4	6	6	17.5	17.5	6	6	7	7
5	6			17.5	6			7
6				17.5				7
7				6				6
8				6				6
9				6				6
10				17.5				7

| Reset | | Calculate from Ranks | | | Calculate from Raw Data | | | |

Mean Ranks for Sample			
A	B	C	D
10.6	11.8	11.8	12.9

H = 0.4

df = 3

P = 0.9402 *

Resource Management

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	19	19	19	19	7	7	7	7
2	19	19	5	11.5	7	7	5	6
3	5	5	5	19	5	5	5	7
4	19	11.5	1	11.5	7	6	4	6
5	5			11.5	5			6
6				5				5
7				11.5				6
8				5				5
9				19				7
10				11.5				6

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
13.4	13.6	7.5	12.5

H = 2.25
df = 3
P = 0.5222 *

Creativity

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	19	19	19	19	7	7	7	7
2	12	12	5	12	6	6	5	6
3	19	5	5	19	7	5	5	7
4	12	19	5	19	6	7	5	7
5	5			19	5			7
6				5				5
7				5				5
8				5				5
9				5				5
10				12				6

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
13.4	13.8	8.5	12

H = 1.54
df = 3
P = 0.6731 *

Customer Service

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17	17	17	5.5	7	7	7	6
2	5.5	17	17	5.5	6	7	7	6
3	17	17	5.5	17	7	7	6	7
4	17	5.5	5.5	17	7	6	6	7
5	17			5.5	7			6
6				5.5				6
7				17				7
8				5.5				6
9				17				7
10				5.5				6

Reset   Calculate from Ranks   Calculate from Raw Data

Mean Ranks for Sample

A	B	C	D
14.7	14.1	11.3	10.1

H = 2.02
df = 3
P = 0.5683   *

Interpersonal Skills

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	18	18	8	18	7	7	6	7
2	8	18	8	8	6	7	6	6
3	8	18	2	8	6	7	5	6
4	8	18	18	2	6	7	7	5
5	18			18	7			7
6				2				5
7				8				6
8				18				7
9				8				6
10				18				7

Reset   Calculate from Ranks   Calculate from Raw Data

Mean Ranks for Sample

A	B	C	D
12	18	9	10.8

H = 4.23
df = 3
P = 0.2377   *

Communication Skills

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	17	17	6.5	17	7	7	6	7
2	17	17	17	6.5	7	7	7	6
3	6.5	6.5	17	6.5	6	6	7	6
4	6.5	17	17	6.5	6	7	7	6
5	17			6.5	7			6
6				1.5				5
7				17				7
8				17				7
9				1.5				5
10				17				7

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
12.8	14.4	14.4	9.7

H = 2.2
df = 3
P = 0.5319 *

Flexibility

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	20	11	11	11	7	6	6	6
2	1	20	3.5	11		7	5	6
3	3.5	3.5	20	20	5	5	7	7
4	20	11	3.5	20	7	6	5	7
5	11			11	6			6
6				11				6
7				11				6
8				11				6
9				11				6
10				20				7

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
11.1	11.4	9.5	13.7

H = 1.29
df = 3
P = 0.7315 *

Vision

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	18	7.5	18	7.5	7	6	7	6
2	18	18	18	18	7	7	7	7
3	7.5	7.5	18	18	6	6	7	7
4	7.5	7.5	1.5	7.5	6	6	5	6
5	7.5			18	6			7
6				7.5				6
7				18				7
8				18				7
9				1.5				5
10				7.5				6

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
11.7	10.1	13.9	12.2

H = 0.63
df = 3
P = 0.8895 *

Political Understanding

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17	17	17	17	7	7	7	7
2	17	7.5	7.5	7.5	7	6	6	6
3	2.5	7.5	17	7.5	5	6	7	6
4	2.5	17	2.5	7.5	5	7	5	6
5	2.5			17	5			7
6				17				7
7				17				7
8				17				7
9				17				7
10				17				7

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
8.3	12.3	11	14.2

H = 2.59
df = 3
P = 0.4592 *

Maturity

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	19.5	10.5	10.5	19.5	7	6	6	7
2	10.5	19.5	19.5	10.5	6	7	7	6
3	10.5	3	10.5	3	6	5	6	5
4	3	19.5	3	19.5	5	7	5	7
5	19.5			10.5	7			6
6				19.5				7
7				3				5
8				10.5				6
9				10.5				6
10				10.5				6

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
12.6	13.1	10.9	11.7

H = 0.28
df = 3
P = 0.9637 *

Problem Solving

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	20.5	20.5	11.5	11.5	7	7	6	6
2	11.5	20.5	3	11.5	6	7	5	6
3	11.5	11.5	3	11.5	6	6	5	6
4	11.5	11.5	11.5	20.5	6	6	6	7
5	20.5			3	7			5
6				3				5
7				11.5				6
8				11.5				6
9				3				5
10				20.5				7

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
15.1	16	7.3	10.8

H = 4.74
df = 3
P = 0.1919 *

Advocacy skills

A: 8 - 14 years n = 5
B: 21 - 25 years n = 4
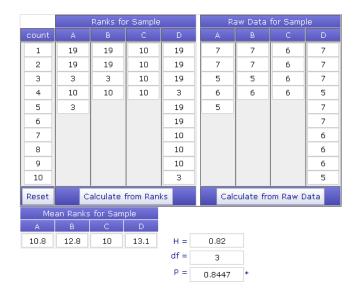C: 26 - 30 years n = 4
D: more than 30 years n = 10

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17.5	17.5	17.5	17.5	7	7	7	7
2	17.5	8.5	8.5	8.5	7	6	6	6
3	8.5	3	3	8.5	6	5	5	6
4	3	17.5	17.5	3	5	7	7	5
5	8.5			17.5	6			7
6				17.5				7
7				17.5				7
8				17.5				7
9				3				5
10				17.5				7

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
11	11.6	11.6	12.8

H = 0.27
df = 3
P = 0.9656 *

*If the size of each of your samples is at least 5, the sampling distribution of H can be taken as a reasonably close approximation of the sampling distribution of chi-square with df = k—1. If any of your samples are of a size smaller than 5, you should regard the calculated P-value as an imperfect approximation.
http://faculty.vassar.edu/lowry/kw4.html

APPENDIX K

Comparison of ANOVA and Kruskal Wallis Statistical Testing
Years as a Librarian
Using Spearman's rho

Competency	ANOVA	Kruskal Wallis	Diff	%Diff
Enthusiasm	.018	.0555	-0.0375	-208.33
Demonstrating Leadership	.094	.7698	-0.6758	-718.94
Delegation	.741	.8133	-0.0723	-9.76
Accountability	.186	.3932	-0.2072	-111.40
Planning	.935	.8447	0.0903	9.66
Integrity	.485	.4992	-0.0142	-2.93
Risk Taking	.196	.3855	-0.1895	-96.68
Credibility	.756	.9402	-0.1842	-24.37
Resource Management	.392	.5222	-0.1302	-33.21
Creativity	.595	.6731	-0.0781	-13.13
Customer Service	.426	.5683	-0.1423	-33.40
Interpersonal Skills	.387	.2377	0.1493	38.58
Communication Skills	.241	.5319	-0.2909	-120.71
Flexibility	.777	.7315	0.0455	5.86
Vision	.747	. 8895	-.1425	-19.07
Political Understanding	.279	.4592	-0.1802	-64.59
Maturity	.625	.9637	-0.3387	-54.19
Problem Solving	.095	.1919	-0.0969	-102.00
Advocacy Skills	.698	.9656	-0.2676	-38.34

pairs	Ranks for		Raw Data for	
	X	Y	X	Y
1	1	1	.018	.0555
2	2	13	.094	.7698
3	15	14	.741	.8133
4	4	5	.186	.3932
5	19	15	.935	.8447
6	11	7	.485	.4992
7	5	4	.196	.3855
8	17	16	.756	.9402
9	9	8	.392	.5222
10	12	11	.595	.6731
11	10	10	.426	.5683
12	8	3	.387	.2377
13	6	9	.241	.5319
14	18	12	.777	.7315
15	16	15	.747	. 8895
16	7	6	.279	.4592
17	13	17	.625	.9637
18	3	2	.095	.1919
19	14	18.5	.698	.9656

Reset	Calculate from Ranks		Calculate from Raw Data	
n	r_s	t	df	
19	0.7556	4.76	17	

P	one-tailed	0.000091
	two-tailed	0.000182

At an *n* of 19, with an alpha of .05, the level of significance is .391; at .01 is .535. (see table: http://www.ace.upm.edu.my/~bas/5950/Spearman%20Rho%20Table.pdf.)

171

ANOVA testing of Years as a Director

Enthusiasm

	Mean	Stnd Deviation
1 – 7 years	6.16667	0.75277
8 – 15 years	5.66667	0.8165
16 – 25 years	6	1
26 – 30+ years	6.2	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.992	3	0.331	0.492	0.692
Within Groups:	12.766	19	0.672		
Total:	13.758	22			

Demonstrating Leadership

	Mean	Stnd Deviation
1 – 7 years	6.5	0.54772
8 – 15 years	6.33333	0.8165
16 – 25 years	6.28571	0.75593
26 – 30+ years	6.5	1

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.216	3	0.072	0.122	0.946
Within Groups:	11.262	19	0.593		
Total:	11.478	22			

Delegation

	Mean	Stnd Deviation
1 – 7 years	6.16667	0.40825
8 – 15 years	6	0.63246
16 – 25 years	5.85714	0.69007
26 – 30+ years	6.25	0.95743

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.516	3	0.172	0.387	0.763
Within Groups:	8.439	19	0.444		
Total:	8.955	22			

Accountability

	Mean	Stnd Deviation
1 – 7 years	6.66667	0.5164
8 – 15 years	6.66667	0.5164
16 – 25 years	6.42857	0.53452
26 – 30+ years	6.25	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.608	3	0.203	0.751	0.535
Within Groups:	5.131	19	0.270		
Total:	5.739	22			

Planning

	Mean	Stnd Deviation
1 – 7 years	6.4	0.89443
8 – 15 years	6.16667	0.75277
16 – 25 years	5.85714	0.89974
26 – 30+ years	6.5	0.57735

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.428	3	0.476	0.713	0.556
Within Groups:	12.689	19	0.668		
Total:	14.117	22			

Integrity

	Mean	Stnd Deviation
1 – 7 years	6.83333	0.40825
8 – 15 years	6.83333	0.40825
16 – 25 years	6.28571	0.75593
26 – 30+ years	6.25	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.807	3	0.602	1.958	0.155
Within Groups:	5.845	19	0.308		
Total:	7.651	22			

Risk Taking

	Mean	Stnd Deviation
1 – 7 years	6.33333	0.8165
8 – 15 years	5.66667	1.21106
16 – 25 years	6	0.57735
26 – 30+ years	6	0.8165

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.333	3	0.444	0.576	0.638
Within Groups:	14.666	19	0.772		
Total:	15.999	22			

Credibility

	Mean	Stnd Deviation
1 – 7 years	6.83333	0.40825
8 – 15 years	6.5	0.54772
16 – 25 years	6.57143	0.53452
26 – 30+ years	6.25	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.854	3	0.285	1.128	0.363
Within Groups:	4.797	19	0.252		
Total:	5.652	22			

Resource Management

	Mean	Stnd Deviation
1 – 7 years	6.66667	0.5164
8 – 15 years	5.66667	1.21106
16 – 25 years	5.57143	0.7868
26 – 30+ years	6.25	0.95743

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	4.869	3	1.623	2.038	0.143
Within Groups:	15.130	19	0.796		
Total:	19.999	22			

Creativity

	Mean	Stnd Deviation
1 – 7 years	6.66667	0.5164
8 – 15 years	5.5	0.83666
16 – 25 years	6	1
26 – 30+ years	5.75	0.95743

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	4.416	3	1.472	2.059	0.140
Within Groups:	13.583	19	0.715		
Total:	17.999	22			

Customer Service

	Mean	Stnd Deviation
1 – 7 years	6.5	0.54772
8 – 15 years	6.66667	0.5164
16 – 25 years	6.57143	0.53452
26 – 30+ years	6.5	0.57735

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.104	3	0.035	0.119	0.948
Within Groups:	5.547	19	0.292		
Total:	5.652	22			

Interpersonal Skills

	Mean	Stnd Deviation
1 – 7 years	6.5	0.83666
8 – 15 years	6.16667	0.75277
16 – 25 years	6.42857	0.7868
26 – 30+ years	6.25	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.420	3	0.140	0.246	0.863
Within Groups:	10.797	19	0.568		
Total:	11.216	22			

Communication Skills

	Mean	Stnd Deviation
1 – 7 years	6.83333	0.40825
8 – 15 years	6.33333	0.8165
16 – 25 years	6.57143	0.53452
26 – 30+ years	6	0.8165

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.858	3	0.619	1.493	0.248
Within Groups:	7.881	19	0.415		
Total:	9.739	22			

Flexibility

	Mean	Stnd Deviation	
1 – 7 years	6.6	0.54772	(*n* was 5)
8 – 15 years	6	0.63246	
16 – 25 years	5.85714	0.89974	
26 – 30+ years	6.25	0.5	

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.990	3	0.663	1.384	0.278
Within Groups:	9.106	19	0.479		
Total:	11.096	22			

Vision

	Mean	Stnd Deviation
1 – 7 years	6.5	0.54772
8 – 15 years	6.16667	0.75277
16 – 25 years	6.42857	0.53452
26 – 30+ years	6.5	1

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.431	3	0.144	0.302	0.824
Within Groups:	9.047	19	0.476		
Total:	9.478	22			

Political Understanding

	Mean	Stnd Deviation
1 – 7 years	6.66667	0.5164
8 – 15 years	6	1.09545
16 – 25 years	6.42857	0.7868
26 – 30+ years	6.5	0.57735

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.430	3	0.477	0.752	0.535
Within Groups:	12.047	19	0.634		
Total:	13.477	22			

Maturity

	Mean	Stnd Deviation
1 – 7 years	6.83333	0.40825
8 – 15 years	5.83333	0.98319
16 – 25 years	6	0.57735
26 – 30+ years	5.75	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	4.192	3	1.397	3.155	0.049
Within Groups:	8.415	19	0.443		
Total:	12.607	22			

Problem Solving

	Mean	Stnd Deviation
1 – 7 years	6.5	0.54772
8 – 15 years	6	0.63246
16 – 25 years	5.85714	0.89974
26 – 30+ years	5.75	0.5

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.849	3	0.616	1.286	0.308
Within Groups:	9.106	19	0.479		
Total:	10.956	22			

Advocacy skills

	Mean	Stnd Deviation
1 – 7 years	6.5	0.83666
8 – 15 years	6.5	0.83666
16 – 25 years	6.14286	0.89974
26 – 30+ years	6	0.8165

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.013	3	0.338	0.463	0.712
Within Groups:	13.856	19	0.729		
Total:	14.868	22			

Kruskal-Wallis Statistical Testing of Years as a Director

Enthusiasm

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	19	4	19	11.5	7	5	7	6
2	19	19	19	11.5	7	7	7	6
3	11.5	11.5	4	11.5	6	6	5	6
4	4	4	4	19	5	5	5	7
5	11.5	4	4		6	5	5	
6		11.5	19			6	7	
7			11.5				6	
Reset	Calculate from Ranks				Calculate from Raw Data			

Mean Ranks for Sample			
A	B	C	D
13	9	11.5	13.4

$H = 1.49$

$df = 3$

$P = 0.6846$ *

Demonstrating Leadership

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17	7.5	17	17	7	6	7	7
2	7.5	2	7.5	2	6	5	6	5
3	7.5	17	2	17	6	7	5	7
4	7.5	17	17	17	6	7	7	7
5	17	7.5	17		7	6	7	
6		17	7.5			7	6	
7			7.5				6	

Reset | Calculate from Ranks | | | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
11.3	11.3	10.8	13.3

H = 0.38
df = 3
P = 0.9443 *

Delegation

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	20	20	2.5	11	7	7	5	6
2	11	11	11	2.5	6	6	6	5
3	11	11	11	20	6	6	6	7
4	11	2.5	2.5	20	6	5	5	7
5	11	11	11		6	6	6	
6		11	11			6	6	
7			20				7	

Reset | Calculate from Ranks | | | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
12.8	11.1	9.9	13.4

H = 1.01
df = 3
P = 0.7988 *

Accountability

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

179

| | Ranks for Sample | | | | Raw Data for Sample | | | |
count	A	B	C	D	A	B	C	D
1	17	17	6	6	7	7	6	6
2	17	17	6	6	7	7	6	6
3	17	17	6	6	7	7	6	6
4	6	6	17	17	6	6	7	7
5	6	6	17		6	6	7	
6		17	6			7	6	
7			17				7	

Reset | Calculate from Ranks | Calculate from Raw Data

| Mean Ranks for Sample | | | |
A	B	C	D
12.6	13.3	10.7	8.8

H = 1.44
df = 3
P = 0.6962 *

Planning

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

| | Ranks for Sample | | | | Raw Data for Sample | | | |
count	A	B	C	D	A	B	C	D
1	18.5	10	18.5	18.5	7	6	7	7
2	18.5	10	3	18.5	7	6	5	7
3	18.5	3	10	10	7	5	6	6
4	3	18.5	10	10	5	7	6	6
5	10	10	18.5		6	6	7	
6		10	3			6	5	
7			3				5	

Reset | Calculate from Ranks | Calculate from Raw Data

| Mean Ranks for Sample | | | |
A	B	C	D
13.7	10.3	9.4	14.3

H = 2.23
df = 3
P = 0.5261 *

Integrity

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	16	16	16	16	7	7	7	7
2	5.5	16	5.5	5.5	6	7	6	6
3	16	5.5	5.5	5.5	7	6	6	6
4	16	16	1	5.5	7	7	5	6
5	16	16	16		7	7	7	
6		16	16			7	7	
7			5.5				6	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
13.9	14.3	9.4	8.1

H = 3.6
df = 3
P = 0.308 *

Risk Taking

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	19	19	10.5	10.5	7	7	6	6
2	19	3.5	10.5	3.5	7	5	6	5
3	10.5	3.5	10.5	19	6	5	6	7
4	19	19	19	10.5	7	7	7	6
5	10.5	10.5	10.5		6	6	6	
6		1	3.5			4	5	
7			10.5				6	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
15.6	9.4	10.7	10.9

H = 2.75
df = 3
P = 0.4318 *

Credibility

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	17	17	17	17	7	7	7	7
2	17	6	6	6	7	6	6	6
3	17	6	6	6	7	6	6	6
4	17	17	6	6	7	7	6	6
5	6	6	17		6	6	7	
6		17	6			7	6	
7			17				7	

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
14.8	11.5	10.7	8.8

H = 2.11
df = 3
P = 0.5499 *

Resource Management

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	18.5	18.5	18.5	11.5	7	7	7	6
2	18.5	18.5	5	18.5	7	7	5	7
3	18.5	5	5	5	7	5	5	5
4	11.5	5	5	18.5	6	5	5	7
5	11.5	11.5	11.5		6	6	6	
6		1	5			4	5	
7			11.5				6	

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
15.7	9.9	8.8	13.4

H = 4
df = 3
P = 0.2615 *

Creativity

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	18	18	18	11.5	7	7	7	6
2	18	11.5	18	18	7	6	7	7
3	11.5	5	5	5	6	5	5	5
4	18	5	5	5	7	5	5	5
5	18	5	18		7	5	7	
6		5	5			5	5	
7			11.5				6	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
16.7	8.3	11.5	9.9

H = 4.96
df = 3
P = 0.1747 *

Customer Service

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	16.5	16.5	16.5	5.5	7	7	7	6
2	5.5	16.5	16.5	16.5	6	7	7	7
3	5.5	16.5	16.5	5.5	6	7	7	6
4	16.5	5.5	5.5	16.5	7	6	6	7
5	5.5	16.5	5.5		6	7	6	
6		5.5	16.5			6	7	
7			5.5				6	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
9.9	12.8	11.8	11

H = 0.59
df = 3
P = 0.8987 *

Interpersonal Skills

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
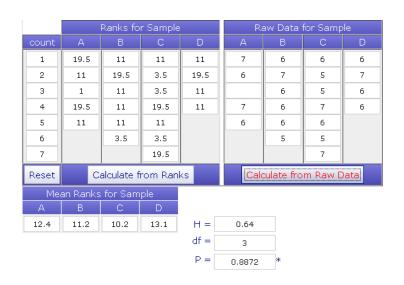C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	17.5	8	17.5	8	7	6	7	6
2	17.5	8	8	8	7	6	6	6
3	8	17.5	8	17.5	6	7	6	7
4	2	2	2	8	5	5	5	6
5	17.5	8	17.5		7	6	7	
6		17.5	17.5			7	7	
7			17.5				7	

Reset   Calculate from Ranks   Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
12.5	10.2	12.6	10.4

H = 0.68

df = 3

P = 0.8779   *

Communication Skills

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	16.5	6.5	16.5	6.5	7	6	7	6
2	16.5	6.5	6.5	6.5	7	6	6	6
3	16.5	16.5	16.5	16.5	7	7	7	7
4	6.5	1.5	16.5	1.5	6	5	7	5
5	16.5	16.5	6.5		7	7	6	
6		16.5	6.5			7	6	
7			16.5				7	

Reset   Calculate from Ranks   Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
14.5	10.7	12.2	7.8

H = 2.58

df = 3

P = 0.461   *

184

Flexibility

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
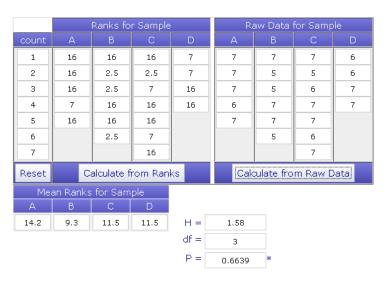C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	19.5	11	11	11	7	6	6	6
2	11	19.5	3.5	19.5	6	7	5	7
3	1	11	3.5	11		6	5	6
4	19.5	11	19.5	11	7	6	7	6
5	11	11	11		6	6	6	
6		3.5	3.5			5	5	
7			19.5				7	

Reset · Calculate from Ranks · Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
12.4	11.2	10.2	13.1

H = 0.64
df = 3
P = 0.8872 *

Vision

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	17.5	17.5	7.5	17.5	7	7	6	7
2	7.5	7.5	7.5	17.5	6	6	6	7
3	17.5	7.5	17.5	17.5	7	6	7	7
4	7.5	7.5	17.5	1.5	6	6	7	5
5	7.5	17.5	17.5		6	7	7	
6		1.5	7.5			5	6	
7			7.5				6	

Reset · Calculate from Ranks · Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
11.5	9.8	11.8	13.5

H = 0.79
df = 3
P = 0.8519 *

Political Understanding

A: 1 - 7 years n = 5
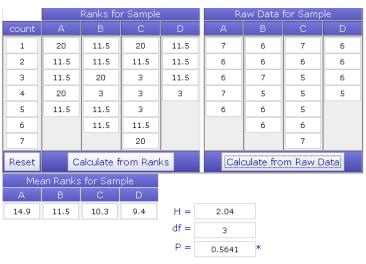B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	16	16	16	7	7	7	7	6
2	16	2.5	2.5	7	7	5	5	6
3	16	2.5	7	16	7	5	6	7
4	7	16	16	16	6	7	7	7
5	16	16	16		7	7	7	
6		2.5	7			5	6	
7			16				7	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
14.2	9.3	11.5	11.5

H = 1.58
df = 3
P = 0.6639 *

Maturity

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	19	10.5	10.5	10.5	7	6	6	6
2	19	3	10.5	3	7	5	6	5
3	10.5	19	19	10.5	6	7	7	6
4	19	19	10.5	10.5	7	7	6	6
5	19	3	10.5		7	5	6	
6		3	3			5	5	
7			10.5				6	

Reset — Calculate from Ranks — Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
17.3	9.6	10.6	8.6

H = 5.42
df = 3
P = 0.1435 *

Problem Solving

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	20	11.5	20	11.5	7	6	7	6
2	11.5	11.5	11.5	11.5	6	6	6	6
3	11.5	20	3	11.5	6	7	5	6
4	20	3	3	3	7	5	5	5
5	11.5	11.5	3		6	6	5	
6		11.5	11.5			6	6	
7			20				7	

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
14.9	11.5	10.3	9.4

H = 2.04
df = 3
P = 0.5641 *

Advocacy skills

A: 1 - 7 years n = 5
B: 8 - 15 years n = 6
C: 16 - 25 years n = 7
D: 26 - 30+ years n = 4

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	17.5	17.5	17.5	8.5	7	7	7	6
2	8.5	2.5	8.5	8.5	6	5	6	6
3	8.5	8.5	8.5	17.5	6	6	6	7
4	17.5	17.5	2.5	2.5	7	7	5	5
5	8.5	17.5	17.5		6	7	7	
6		17.5	2.5			7	5	
7			17.5				7	

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
12.1	13.5	10.6	9.3

H = 1.21
df = 3
P = 0.7506 *

*If the size of each of your samples is at least 5, the sampling distribution of H can be taken as a reasonably close approximation of the sampling distribution of chi-square with df = k—1. If any of your samples are of a size smaller than 5, you should regard the calculated P-value as an imperfect approximation.
http://faculty.vassar.edu/lowry/kw4.html

Comparison of ANOVA and Kruskal Wallis Statistical Testing
Years as a Director using Spearman's rho

Competency	ANOVA	Kruskal Wallis	Difference	% Difference
Enthusiasm	.692	.6846	0.0073	1.07
Demonstrating Leadership	.946	.9443	0.0016	0.18
Delegation	.763	.7988	-0.0357	-4.69
Accountability	.535	.6962	-0.1612	-30.13
Planning	.556	.5261	0.0299	5.38
Integrity	.155	.308	-0.153	-98.71
Risk Taking	.638	.4318	0.2062	32.32
Credibility	.363	.5499	-0.1869	-51.49
Resource Management	.143	.2615	-0.1185	-82.87
Creativity	.140	.1747	-0.0347	-24.79
Customer Service	.948	.8987	0.0492	5.20
Interpersonal Skills	.863	.8779	-0.0149	-1.73
Communication Skills	.248	.461	-0.213	-85.89
Flexibility	.278	.8872	-0.6092	-219.14
Vision	.824	.8519	-0.0279	-3.39
Political Understanding	.535	.6639	-0.1289	-24.09
Maturity	.049	.1435	-0.0945	-192.86
Problem Solving	.308	.5641	-0.2561	-83.15
Advocacy Skills	.712	.7506	-0.0386	-5.42

r_s , the Spearman rank-order correlation coefficient, for a bivariate set of paired XY rankings

Data Entry

pairs	Ranks for X	Ranks for Y	Raw Data for X	Raw Data for Y
1	13	11	.692	.6846
2	18	19	.946	.9443
3	15	14	.763	.7988
4	9.5	12	.535	.6962
5	11	7	.556	.5261
6	4	4	.155	.308
7	12	5	.638	.4318
8	8	8	.363	.5499
9	3	3	.143	.2615
10	2	2	.140	.1747
11	19	18	.948	.8987
12	17	16	.863	.8779
13	5	6	.248	.461
14	6	17	.278	.8872
15	16	15	.824	.8519
16	9.5	10	.535	.6639
17	1	1	.049	.1435
18	7	9	.308	.5641
19	14	13	.712	.7506

Reset | Calculate from Ranks | Calculate from Raw Data

n	r_s	t	df
19	0.8179	5.86	17

P	one-tailed	0.00001
	two-tailed	0.000019

At an *n* of 19, with an alpha of .05, the level of significance is .391; at .01 is .535. (see table: http://www.ace.upm.edu.my/~bas/5950/Spearman%20Rho%20Table.pdf.)

189

ANOVA testing of Population Size Differences

_n_ for each group

5K or less	7
10 – 25K	6
50 – 100K	5
250 – 500+ K	5

Enthusiasm

	Mean	Stnd Dev
5K or less	6.28571	0.75593
10 – 25K	6.33333	0.8165
50 – 100K	6	0.70711
250 – 500+ K	5.2	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	4.438	3	1.479	2.940	0.060
Within Groups:	9.562	19	0.503		
Total:	13.999	22			

Demonstrating Leadership

	Mean	Stnd Dev
5K or less	6	0.8165
10 – 25K	7	0
50 – 100K	6.2	0.44721
250 – 500+ K	6.4	0.89443

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	3.478	3	1.159	2.754	0.071
Within Groups:	8.000	19	0.421		
Total:	11.478	22			

Delegation

	Mean	Stnd Dev
5K or less	5.85714	0.37796
10 – 25K	6.16667	0.98319
50 – 100K	6.2	0.44721
250 – 500+ K	6	0.70711

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.466	3	0.155	0.348	0.791
Within Groups:	8.489	19	0.447		
Total:	8.955	22			

Accountability

	Mean	Stnd Dev
5K or less	6.57143	0.53452
10 – 25K	6.5	0.54772
50 – 100K	6.8	0.44721
250 – 500+ K	6.4	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.438	3	0.146	0.532	0.666
Within Groups:	5.214	19	0.274		
Total:	5.652	22			

Planning

	Mean	Stnd Dev
5K or less	5.71429	0.75593
10 – 25K	6.5	0.54772
50 – 100K	5.8	0.83666
250 – 500+ K	6.4	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	2.898	3	0.966	2.056	0.140
Within Groups:	8.928	19	0.470		
Total:	11.826	22			

Integrity

	Mean	Stnd Dev
5K or less	6.71429	0.48795
10 – 25K	6.33333	0.8165
50 – 100K	6.4	0.54772
250 – 500+ K	6.8	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.890	3	0.297	0.834	0.492
Within Groups:	6.761	19	0.356		
Total:	7.652	22			

Risk Taking

	Mean	Stnd Dev
5K or less	5.28571	0.95119
10 – 25K	6.5	0.54772
50 – 100K	6	0.70711
250 – 500+ K	6.4	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.872	3	1.957	3.672	0.031
Within Groups:	10.127	19	0.533		
Total:	15.999	22			

Credibility

	Mean	Stnd Dev
5K or less	6.42857	0.53452
10 – 25K	6.5	0.54772
50 – 100K	6.6	0.54772
250 – 500+ K	6.6	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.125	3	0.042	0.141	0.934
Within Groups:	5.614	19	0.295		
Total:	5.739	22			

Resource Management

	Mean	Stnd Dev
5K or less	5.85714	1.21499
10 – 25K	6.16667	0.98319
50 – 100K	6.2	0.83666
250 – 500+ K	5.8	0.83666

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.709	3	0.236	0.233	0.872
Within Groups:	19.288	19	1.015		
Total:	19.997	22			

Creativity

	Mean	Stnd Dev
5K or less	6.14286	0.89974
10 – 25K	5.83333	0.98319
50 – 100K	5.8	0.83666
250 – 500+ K	6.2	1.09545

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.709	3	0.236	0.260	0.853
Within Groups:	17.288	19	0.910		
Total:	17.998	22			

Customer Service

	Mean	Stnd Dev
5K or less	6.85714	0.37796
10 – 25K	6.5	0.54772
50 – 100K	6.4	0.54772
250 – 500+ K	6.2	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	1.382	3	0.461	2.009	0.147
Within Groups:	4.357	19	0.229		
Total:	5.738	22			

Interpersonal Skills

	Mean	Stnd Dev
5K or less	6.28571	0.75593
10 – 25K	6.33333	0.8165
50 – 100K	6.6	0.54772
250 – 500+ K	6.2	0.83666

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.456	3	0.152	0.268	0.848
Within Groups:	10.761	19	0.566		
Total:	11.217	22			

Communication Skills

	Mean	Stnd Dev
5K or less	6.28571	0.7559
10 – 25K	6.5	0.83666
50 – 100K	7	0
250 – 500+ K	6.2	0.83666

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	2.011	3	0.670	1.309	0.301
Within Groups:	9.727	19	0.512		
Total:	11.738	22			

Flexibility

	Mean	Stnd Dev
5K or less	6.14286	1.06904
10 – 25K	6.33333	0.5164
50 – 100K	6.25	.5 (only 4 participants responded to this one)
250 – 500+ K	5.8	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.863	3	0.288	0.547	0.656
Within Groups:	9.990	19	0.526		
Total:	10.853	22			

Vision

	Mean	Stnd Dev
5K or less	6.14286	0.69007
10 – 25K	6.5	0.83666
50 – 100K	6.4	0.54772
250 – 500+ K	6.6	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	0.721	3	0.240	0.522	0.672
Within Groups:	8.756	19	0.461		
Total:	9.477	22			

Political Understanding

	Mean	Stnd Dev
5K or less	5.71429	0.48795
10 – 25K	6.83333	0.40825
50 – 100K	6.6	0.89443
250 – 500+ K	6.8	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.391	3	1.797	5.453	0.007
Within Groups:	6.261	19	0.330		
Total:	11.652	22			

Maturity

	Mean	Stnd Dev
5K or less	5.71429	0.95119
10 – 25K	6.16667	0.40825
50 – 100K	6.2	0.83666
250 – 500+ K	6.6	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	2.347	3	0.782	1.449	0.260
Within Groups:	10.260	19	0.540		
Total:	12.607	22			

Problem Solving

	Mean	Stnd Dev
5K or less	6.28571	0.48795
10 – 25K	6	0.89443
50 – 100K	6.4	0.54772
250 – 500+ K	5.4	0.54772

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	3.128	3	1.043	2.531	0.088
Within Groups:	7.828	19	0.412		
Total:	10.956	22			

Advocacy Skills

	Mean	Stnd Dev
5K or less	5.71429	0.75593
10 – 25K	6.16667	0.98319
50 – 100K	6.8	0.44721
250 – 500+ K	6.8	0.44721

	Sum of Squares	df	Mean Square	Fisher F-value	Significance (p)
Between Groups:	5.008	3	1.669	3.217	0.046
Within Groups:	9.861	19	0.519		
Total:	14.869	22			

Kruskal-Wallis Statistical Testing of Population

5K or less	$n = 7$
10 – 25K	$n = 6$
50 – 100K	$n = 5$
250 – 500+ K	$n = 5$

Enthusiasm

Data Entry

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	12	20	4	12	6	7	5	6
2	20	12	12	4	7	6	6	5
3	4	4	4	4	5	5	5	5
4	12	12	12	4	6	6	6	5
5	12	20	20	12	6	7	7	6
6	20	20			7	7		
7	20				7			

Reset	Calculate from Ranks	Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
14.3	14.7	10.4	7.2

H = 4.51
df = 3
P = 0.2114 *

Demonstrating Leadership

Data Entry

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	17.5	17.5	7.5	7.5	7	7	6	6
2	7.5	17.5	17.5	17.5	6	7	7	7
3	7.5	17.5	2	17.5	6	7	5	7
4	17.5	17.5	7.5	7.5	7	7	6	6
5	2	17.5	7.5	17.5	5	7	6	7
6	2	17.5			5	7		
7	7.5				6			

Reset	Calculate from Ranks	Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
8.8	17.5	8.4	13.5

H = 7.17
df = 3
P = 0.0667 *

Delegation

Data Entry

	Ranks for Sample					Raw Data for Sample			
count	A	B	C	D		A	B	C	D
1	11.5	21	11.5	21		6	7	6	7
2	11.5	21	11.5	2.5		6	7	6	5
3	11.5	2.5	11.5	11.5		6	5	6	6
4	11.5	11.5	11.5	21		6	6	6	7
5	2.5	2.5	11.5	11.5		5	5	6	6
6	11.5	21				6	7		
7	11.5					6			

Reset	Calculate from Ranks			Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
10.2	13.3	11.5	13.5

H = 0.96

df = 3

P = 0.8109 *

Accountability

Data Entry

	Ranks for Sample					Raw Data for Sample			
count	A	B	C	D		A	B	C	D
1	17.5	17.5	6	17.5		7	7	6	7
2	6	6	17.5	6		6	6	7	6
3	6	17.5	6	17.5		6	7	6	7
4	17.5	6	17.5	17.5		7	6	7	7
5	6	6	17.5	6		6	6	7	6
6	17.5	17.5				7	7		
7	6					6			

Reset	Calculate from Ranks			Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
10.9	11.8	12.9	12.9

H = 0.36

df = 3

P = 0.9484 *

Planning

Data Entry

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	10	10	10	3	6	6	6	5
2	3	10	3	19	5	6	5	7
3	3	10	10	19	5	6	6	7
4	19	19	19	10	7	7	7	6
5	19	19	19	10	7	7	7	6
6	10	19			6	7		
7	3				5			

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
9.6	14.5	12.2	12.2

H = 1.72
df = 3
P = 0.6325 *

Integrity

Data Entry

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	16.5	5.5	16.5	5.5	7	6	7	6
2	16.5	5.5	5.5	16.5	7	6	6	7
3	16.5	1	5.5	16.5	7	5	6	7
4	16.5	16.5	16.5	16.5	7	7	7	7
5	5.5	16.5	5.5	16.5	6	7	6	7
6	16.5	16.5			7	7		
7	5.5				6			

Reset	Calculate from Ranks		Calculate from Raw Data

Mean Ranks for Sample			
A	B	C	D
13.4	10.3	9.9	14.3

H = 1.73
df = 3
P = 0.6303 *

Risk Taking

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	1	11.5	11.5	11.5	4	6	6	6
2	4	20	4	20	5	7	5	7
3	20	20	11.5	11.5	7	7	6	6
4	4	11.5	11.5	20	5	6	6	7
5	4	11.5	20	11.5	5	6	7	6
6	4	20			5	7		
7	11.5				6			

| Reset | | Calculate from Ranks | | | Calculate from Raw Data | | | |

Mean Ranks for Sample A	B	C	D
6.9	15.8	11.7	14.9

H = 6.67

df = 3

P = 0.0832 *

Credibility

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	17.5	6	6	17.5	7	6	6	7
2	6	6	6	17.5	6	6	6	7
3	17.5	6	6	17.5	7	6	6	7
4	17.5	17.5	17.5	17.5	7	7	7	7
5	6	17.5	17.5	6	6	7	7	6
6	6	17.5			6	7		
7	6				6			

| Reset | | Calculate from Ranks | | | Calculate from Raw Data | | | |

Mean Ranks for Sample A	B	C	D
10.9	11.8	10.6	15.2

H = 1.51

df = 3

P = 0.68 *

199

Resource Management

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	1	19	11	11	4	7	6	6
2	4.5	4.5	4.5	11	5	5	5	6
3	11	4.5	4.5	11	6	5	5	6
4	19	11	19	19	7	6	7	7
5	19	19	19	11	7	7	7	6
6	19	19			7	7		
7	4.5				5			

Reset	Calculate from Ranks	Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
11.1	12.8	11.6	12.6

H = 0.26

df = 3

P = 0.9674 *

Creativity

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	4.5	4.5	4.5	11.5	5	5	5	6
2	4.5	4.5	4.5	11.5	5	5	5	6
3	19	4.5	4.5	19	7	5	5	7
4	11.5	11.5	11.5	19	6	6	6	7
5	19	19	19	19	7	7	7	7
6	11.5	19			6	7		
7	19				7			

Reset	Calculate from Ranks	Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
12.7	10.5	8.8	16

H = 3.22

df = 3

P = 0.3589 *

Customer Service

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	5	16.5	16.5	5	6	7	7	6
2	16.5	5	16.5	5	7	6	7	6
3	16.5	5	16.5	5	7	6	7	6
4	16.5	16.5	5	16.5	7	7	6	7
5	16.5	16.5	5	5	7	7	6	6
6	16.5	16.5			7	7		
7	16.5				7			

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
14.9	12.7	11.9	7.3

H = 3.7
df = 3
P = 0.2957 *

Interpersonal Skills

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	18	8	8	18	7	6	6	7
2	18	18	18	2	7	7	7	5
3	2	2	8	18	5	5	6	7
4	18	8	8	8	7	6	6	6
5	8	18	18	18	6	7	7	7
6	8	18			6	7		
7	8				6			

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
11.4	12	12	12.8

H = 0.12
df = 3
P = 0.9893 *

Communication

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	17	2	17	17	7	5	7	7
2	7	17	17	2	6	7	7	5
3	2	17	17	7	5	7	7	6
4	17	7	17	7	7	6	7	6
5	7	17	17	17	6	7	7	7
6	7	17			6	7		
7	7				6			

Reset		Calculate from Ranks				Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
9.1	12.8	17	10

H = 4.48

df = 3

P = 0.2141 *

Flexibility

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	2.5	10.5	10.5	20	5	6	6	7
2	2.5	10.5	10.5	10.5	5	6	6	6
3	10.5	20	2.5	10.5	6	7	5	6
4	20	10.5	20	10.5	7	6	7	6
5	20	10.5	10.5	10.5	7	6	6	6
6	20	20			7	7		
7	2.5				5			

Reset		Calculate from Ranks				Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
11.1	13.7	10.8	12.4

H = 0.65

df = 3

P = 0.8849 *

Vision

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	1.5	1.5	17.5	7	5	5	7	6
2	7	17.5	7	7	6	7	6	6
3	17.5	17.5	17.5	17.5	7	7	7	7
4	17.5	17.5	17.5	17.5	7	7	7	7
5	17.5	7	7	7	7	6	6	6
6	7	17.5			6	7		
7	7				6			

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
10.7	13.1	13.3	11.2

H = 0.66
df = 3
P = 0.8826 *

Political Understanding

Data Entry

count	Ranks for Sample A	B	C	D	Raw Data for Sample A	B	C	D
1	2.5	17	17	17	5	7	7	7
2	7.5	17	2.5	17	6	7	5	7
3	7.5	17	7.5	17	6	7	6	7
4	7.5	7.5	17	17	6	6	7	7
5	7.5	17	17	17	6	7	7	7
6	2.5	17			5	7		
7	2.5				5			

Reset | Calculate from Ranks | Calculate from Raw Data

Mean Ranks for Sample A	B	C	D
5.4	15.4	12.2	17

H = 10.96
df = 3
P = 0.0119 *

Maturity

Data Entry

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	3	11	3	11	5	6	5	6
2	3	11	20	20	5	6	7	7
3	11	11	20	11	6	6	7	6
4	20	11	11	11	7	6	6	6
5	3	11	20	20	5	6	7	7
6	3	20			5	7		
7	11				6			

| Reset | Calculate from Ranks | | Calculate from Raw Data |

Mean Ranks for Sample			
A	B	C	D
7.7	12.5	14.8	14.6

H = 4.41
df = 3
P = 0.2205 *

Problem Solving

Data Entry

count	Ranks for Sample				Raw Data for Sample			
	A	B	C	D	A	B	C	D
1	11.5	3	11.5	20.5	6	5	6	7
2	11.5	11.5	20.5	3	6	6	7	5
3	20.5	3	3	3	7	5	5	5
4	20.5	11.5	11.5	11.5	7	6	6	6
5	11.5	20.5	11.5	11.5	6	7	6	6
6	11.5	20.5			6	7		
7	11.5				6			

| Reset | Calculate from Ranks | | Calculate from Raw Data |

Mean Ranks for Sample			
A	B	C	D
14.1	11.7	11.6	9.9

H = 1.16
df = 3
P = 0.7626 *

Advocacy Skills

	Ranks for Sample				Raw Data for Sample			
count	A	B	C	D	A	B	C	D
1	17.5	3	17.5	17.5	7	5	7	7
2	3	17.5	8.5	17.5	5	7	6	7
3	3	3	8.5	17.5	5	5	6	7
4	8.5	8.5	17.5	17.5	6	6	7	7
5	8.5	17.5	17.5	17.5	6	7	7	7
6	3	17.5			5	7		
7	8.5				6			

Reset	Calculate from Ranks		Calculate from Raw Data	

Mean Ranks for Sample			
A	B	C	D
7.4	11.2	13.9	17.5

H =   6.95

df =   3

P =   0.0735   *

205

Comparison of ANOVA and Kruskal Wallis Statistical Testing
Population Size Served using Spearman's rho

Competency	ANOVA	Kruskal Wallis	Difference	% Difference
Enthusiasm	0.06	0.0214	0.0386	0.356667
Demonstrating Leadership	0.071	0.0667	0.0043	0.939437
Delegation	0.791	0.8109	-0.0199	1.025158
Accountability	0.666	0.9484	-0.2824	1.424024
Planning	0.14	0.6325	-0.4925	4.517857
Integrity	0.492	0.6303	-0.1383	1.281098
Risk Taking	0.031	0.0832	-0.0522	2.683871
Credibility	0.934	0.68	0.254	0.728051
Resource Management	0.872	0.9674	-0.0954	1.109404
Creativity	0.853	0.3589	0.4941	0.42075
Customer Service	0.147	0.2957	-0.1487	2.011565
Interpersonal Skills	0.848	0.9893	-0.1413	1.166627
Communication Skills	0.301	0.2141	0.0869	0.711296
Flexibility	0.656	0.8849	-0.2289	1.348933
Vision	0.672	0.8826	-0.2106	1.313393
Political Understanding	0.0007	0.0119	-0.0112	17
Maturity	0.26	0.2205	0.0395	0.848077
Problem Solving	0.088	0.7626	-0.6746	8.665909
Advocacy Skills	0.046	0.0735	-0.0275	1.597826

pairs	Ranks for		Raw Data for	
	X	Y	X	Y
1	4	6	.060	.1660
2	5	2	.071	.0434
3	15	14	.791	.8375
4	13	16	.666	.9078
5	7	11	.140	.4771
6	11	7	.492	.3221
7	2	3	.031	.0722
8	19	15	.934	.8519
9	18	17	.872	.9726
10	17	12	.853	.5499
11	8	8	.147	.3916
12	16	18	.848	.9776
13	10	5	.301	.1244
14	12	13	.656	.6823
15	14	19	.672	.9962
16	1	1	.0007	.0145
17	9	10	.260	.4318
18	6	9	.088	.4268
19	3	4	.046	.1050

Reset	Calculate from Ranks		Calculate from Raw Data	

n	r_s	t	df
19	0.8561	6.83	17

P	one-tailed	0.000002
	two-tailed	0.000003

At an n of 19, with an alpha of .05, the level of significance is .391; at .01 is .535. (see table: http://www.ace.upm.edu.my/~bas/5950/Spearman%20Rho%20Table.pdf.)

207

BIBLIOGRAPHY

Adkins, D. & Esser, L. (2004). Literature and technology skills for entry level children's librarians: What employers want. *Children and Libraries, 2*(3), 14-21.

Allen, I.A. & Seaman, C.A. (2007). Likert Scales and Data Analyses. *Quality Progress*, July. http://asq.org/quality-progress/2007/07/statistics/likert-scales-and-data-analyses.html.

Alire, C. (2010). Building relationships Boost your career by serving as a library advocate. *American Libraries* 41(4), 7.

Ameen, K. (2006). Challenges of Preparing LIS Professionals for Leadership Roles in Pakistan. *Journal of Education for Library and Information Science*, *47*(3), 200-217.

Arvey, D. & Hoyle, J. (1974). A Guttman approach to the development of behaviorally based rating scales for systems analysts and programmer/analysts, *Journal of Applied Psychology*, 59, 61-68.

Auster, E., & Chan, D. (2004). Reference librarians and keeping up-to-date: a question of priorities. *Reference & User Services Quarterly*, *44*(1), 57-66.

Barnard, C. (1971). *The functions of the executive: 30th Anniversary Edition* Cambridge, MA: Harvard University Press.

Bennis, W. (1991). Learning some basic truths about leadership. *National Forum*, *71*(1), 12-15.

Bergman, S., Yassine, A., & Roemer, T. (2004). Competencies development framework based on best practices. *Information Knowledge Systems Management*, *4*(1), 35-53.

Birdir, B., & Pearson, K. (2000). Research chefs' competencies: a Delphi approach. *International Journal of Contemporary Hospitality Management*, *12*(3), 205-209.

Blanchard, K.H., & Johnson, S. (1982). *The one minute manager*. New York: William Morrow.

Blanz, F. & Ghiselli, E. (1972). The mixed standard scale: A new rating system. *Personnel Psychology* 25, 155-199.

Boff, C., Singer, C. & Stearns, B. (2006). Reaching out to the underserved: More than thirty years of outreach job ads. *The Journal of Academic Librarianship, 32(2),* 137-147.

Brill, J.M., Bishop, M.J., & Walker, A.E. (2006). The competencies and characteristics required of an effective project manager: A web-based Delphi study. *ETR&D, 54*(2), 115-140.

Brodie, M.B. (1967). *Fayol on administration*. London: Lyon, Grant and Green.

Brown, L.M., & Posner, B.Z. (2001). Exploring the relationship between learning and leadership. *Leadership and Organization Development Journal, 22*(5/6), 274-280.

Brown, R.M., & Eggers, J.T. (2005). Correctional leadership competencies for the 21st century. *Corrections Today, 67*(4), 28, 30.

Brown, T. (2006). Stop competency blunders. *T+D, 60*(1), 20-22.

Bryant, E. (2007). Leadership Southwest style. *T+D, 61*(12), 36-39.

Buckingham, M., & Coffman, C. (1999). *First, break all the rules: what the world's greatest managers do differently.* New York: Simon & Schuster.

Bueno, C., Antolin, A. & Tubbs, S. (2004). Identifying global leadership competencies: an exploratory study. *Journal of American Academy of Business, Cambridge, 5*(1/2), 80-87.

Burke, A. (2000). How to accomplish organization-wide competency and education. *Nursing Management* 31(2), 20-26.

Burns, J.S. (2002). Chaos theory and leadership studies: Exploring uncharted seas. *Journal of Leadership & Organizational Studies, 9*(2), 42-56.

Caplan, A. (2010). Leadership and advocacy A parallel dance. *Public Libraries*, Nov/Dec, 4-5.

Clawson, J.G. (2003). *Level three leadership: Getting below the surface.* Upper Saddle River, NJ: Pearson Education.

Collins, J. (2001). *Good to great: why some companies make the leap... and others don't.* New York: Harper Business.

Conger, J.A., & Ready, D.A. (2004). Rethinking leadership competencies. *Leader to Leader, 32*, 41-47.

Contino, D.S. (2004). Leadership competencies: Knowledge, skills, and aptitudes nurses need to lead organizations effectively. *Critical Care Nurse, 24*(3), 52-64.

Covey, S.R. (1991). *Principle-centered leadership.* New York, NY: First Free Press.

Covey, S.R. (2004).*The 7 habits of highly effective people.* New York: Free Press.

Cox, D (2003). *Leadership when the heat's on: 24 lessons in high performance management.* New York, NY: McGraw Hill.

Croneis, K.S. & Henderson, P. (2002). Electronic and digital librarian positions: A content analysis of announcements from 1990 through 2000, *The Journal of Academic Librarianship, 28*(4), 232-237.

Cross, J. (2005) Opportunities for internships in library administration: Results of a survey

commissioned by the LAMA education committee. *Library Administration & Management*, *19*(4), 193-196.

Cuddy, C. & Medeiros, T.S. (2002). Designing a library staff computer training program: Implementation of core competencies. *Information Technology and Libraries*. 87-90.

Daido, R, Hahm, S., Ito, M., Makino, S., & Ito, A. (2011). A system for evaluating singing enthusiasm for karoke. *12th International Society for Music Information Retrieval Conference (ISMIR)*, 31-36.

Dancik, D.B. (2006). Borrowing from the balcony the ACRL/Harvard Leadership Institute from a longer view. *College & Research Libraries News*, *67*(3), 166-167, 176.

Daniel, T.L. (1992). Identifying critical leadership competencies of manufacturing supervisors in a major electronics corporation. *Group and Organizational Studies*, *17*(1), 57-71.

Daud, R., Ismail, M., & Omar, Z. (2010). Exploring competencies A preliminary study of Malaysian SH&E professionals using the Delphi technique. *Personal Safety*, 39 – 47.

Deane, G. (2005). Lasting lessons in leadership: How a former book trade rep took a library from good to truly great. *Public Libraries*, *44*(3), 163-168.

DePree, M. (1992). *Leadership jazz*. New York, NY: Dell Publishing.

Dole, W.V., Hurych, J.M., & Liebst A. (2005). Assessment: A core competency for library leaders. *Library Administration and Management*, *19*(3), 125-132.

Dubois, D., & Rothwell, W. (2004). Competency-based or a traditional approach to training? *T + D,* 58(4), 46-57.

Farrell, J.P., & Robbins, M.M. (1993). Leadership competencies for physicians. *The Healthcare Forum Journal*, *36*(4), 39-42.

Farren, C. (2001). Master leaders. *Executive Excellence*, *18*(3), 7.

Feret, B., & Marcinek, M. (2005). The future of the academic library and the academic librarian: A Delphi study reloaded. *New Review of Information Networking*, *11*(1), 37-63.

Fiedler, F. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.

Finegan, J. (1994). The impact of personal values on judgments of ethical behaviour in the workplace. *Journal of Business Ethics*, 13, 747-755.

Frost, C. (2005). Library leaders your role in the professional learning community. *Knowledge Quest*, *33*(5), 41-42.

Fulmer, R.M., & Wagner, S. (1999). Leadership: lessons from the best. *Training and Development*, *53*(3), 29-32.

Gantt, H.L. (1913). *Work, wages, and profits*.
http://books.google.com/books?id=p2ANAAAAYAAJ.

Ganzel, R. (2001). Hard training for soft skills. *Training, 38*(6), 56-59.

Gebelein, S.H. (2001). Leadership competency. *Executive Excellence*, *18*(3), 10.

Gilbreth , F.B., & Gilbreth Carey, E. (1948). *Cheaper by the dozen*. New York: HarperCollins.

Gillespie, K., Kurz, R., McBride, T., & Schmitz, H. (2004). Competencies for public
health finance: an initial assessment and recommendations. *Journal of Public Health
Management & Practice*, *10*(5), 458-466.

Goleman, D, Boyatzis, R, & McKee, A (2002). *Primal leadership: Realizing the power of emotional
intelligence*. Boston, MA: Harvard Business School Press.

Gordon, T.J. (1994). The Delphi Method. *Futures research methodology*, Retrieved April 15, 2008,
from http://millennium-project.org/FRMv3_0/04-Delphi.pdf.

Gray, L. (1999). New Zealand HRD practitioner competencies: Application of the ASTD
competency model. *International Journal of Human Resource Management*. *10*(6), 1046-1059.

Gregoire, T G, & Driver, B L. (1987). Analysis of Ordinal Data to Detect Population
Differences. Psychological Bulletin, 101(1), 159.

Gutsche, B. (2010). Coping with Continual Motion. *Library Journal (1976)*, *135*(4), 28-31.

Guttman, H.M. (2005). Conflict management as a core leadership competency. *Training*,
42(11), 34-39.

Haldane, G.C. (2003). LISTENing to healthcare students: The impact of new library facilities on
the quality of services. *Health Information and Libraries Journal, 20*, 59-68.

Hart, L.B., & Waisman, C.S. (2005). The sorts of leadership. *T+D*, *59*(3), 20-22.

Hayati, Z. (2005). Competency definition for Iranian library and information professionals.
Journal of Education for Library and Information Science, *46*(2), 165-192.

Hayes, H., Rose-Quirie, A., & Allinson, C.W. (2000). Senior manager's perceptions of the
competencies they require for effective performance: implications for training and
development. *Personnel Review*, *29*(1), 92-101.

Helmick, C., & Swigger, K. (2006). Core competencies of library practitioners. *Public
Libraries*, *45*(2), 54-69.

Helmick, C., & Western Council of State Libraries, Inc. (2004). *Library practitioner core
competencies*. Aurora, CO: Western Council of State Libraries, Inc.

Hernon, P., & Powell R. (2004). What will gen-next need to lead?. *American Libraries*, *35*(5), 32-35.

Hernon, P., Powell, R.R., & Young, A.P. (2002). University library directors in the Association of Research Libraries: The next generation, part two. *College and Research Libraries*. *63*(1), 73-90.

Hernon, P., Powell, R.P., & Young, A.P. (2003). *The next library leadership: attributes of academic and public library directors*. Westport, CN, Libraries Unlimited.

Hernon, P., & Rossiter, N. (2006). Emotional intelligence: which traits are most prized?. *College & Research Libraries*, *67*(3), 260-275.

Hernon, P., & Schwartz, C. (2006). Leadership: a unique focus. *The Journal of Academic Librarianship*, *32*(1), 1-2.

Hirzel, R.C. (2003). Leadership is personal. *Quality Congress*, *57*, 373-375.

Holcomb, J.M. (2005). Learning to lead: Debunking leadership myths. *Law Library Journal*, *97*(4), 729-734.

Howze, P.C. (2003). From core competencies to desired traits: hiring a head of reference for the new millennium. *The Reference Librarian, 81*, 17-33.

Hsu, C.C. & Sandford, B.A. (2007). The Delphi technique; Making sense of consensus. *Practical Assessment, Research & Evaluation 12 (10)*, 1-8.

Hunt, J. (1996). Using your defects to best effect. *Director*, *49*(7), 81.

Hunt, J. W., & Baruch, Y. (2003). Developing top managers: The impact of interpersonal skills training. *The Journal of Management Development, 22*(7), 729-752.

Hurd, A.R. & Buschbom, T. (2010). Competency development for chief executive officers in YMCAs, *Managing Leisure (15)*, 96-110.

Jamieson, S. (2004). Likert scales: how to (ab)use them. *Medical Education*, 38, 1212–1218.

Jirasinghe, D., & Lyons, G. (1995). Management competencies in action: A practical framework. *School Organisation, 15(3)*, 267-281.

Johnson, S. (1998). *Who moved my cheese?: An amazing way to deal with change in your work and in your life*. New York: G. P. Putnam's Sons.

Josephson, M. & Vingard, E. (2007). Zest for work? Assessment of enthusiasm and satisfaction with the present work situation and healthy – a 1.5 year follow-up study.*Work*, 29, 225-231.

Kinkus, J. (2007). Project management skills: a literature review and content analysis of

librarian position announcements. *College & Research Libraries, 68*(4), 352-363.

Klenke, K. (2002). Cinderella stories of women leaders: Connecting leadership contexts and competencies. *Journal of Leadership and Organizational Studies*, *9*(2), 18-28.

Kotter, J., & Rathgeber, H. (2006). *Our iceberg is melting: Changing and succeeding under any conditions.* New York: St. Martin's Press.

Kouzes, J.M., & Posner, B.Z. (2002). *The leadership challenge.* New York, NY: Jossey-Bass.

Krause, D.G. (1995). *The art of war for executives.* New York, NY: Perigee Books.

Krejci, J.W., & Malin, S. (1997). Impact of leadership development on competencies. *Nursing Economics*, *15*(5), 235-241.

Leading to learn: Learning organizations and the role of leadership (2003). *Development and Learning in Organizations*, *17*(5), 19-21.

Leaf, B. (2011) The long game An interview with Molly Raphael, ALA President Elect *Library Leadership & Management* 25(2), 1-2.

Lester, R.I. (1990). Leadership: Some principles and concepts. In R. L. Albritton, & Shaughnessy, T.W. (Ed.). (1990). *Developing leadership skills: A source book for librarians.* (p. 17-20). Englewood, CO: Libraries Unlimited, Inc.

Lester, J., & Van Fleet, C. (2008) Use of professional competencies and standards documents for curriculum planning in schools of library and information studies education, *Journal of Education for Library and Information Science 49*, 43-69.

Lubans Jr., J. (2006). Balam's ass: Toward proactive leadership in libraries. *Library Administration and Management. 20*(1), 30-33.

Lubans Jr., J. (2006). Coaching for results. *Library Administration and Management*, *20*(2), 86-89.

Lundin, S.C., Paul, H., Christensen, J. (2000). *Fish! A remarkable way to boost morale and improve results.* New York: Hyperion.

Lynch, M.J., Tordello, S., & Godfrey, T. (2005). Retirement & recruitment: A deeper look. *American Libraries*, *36*(1), 28.

McAbee, P. (2002). Library leadership IQ: What good managers know. *The Book Report*, *21*(1), 38-39.

McCook, K. (2004). *Introduction to public librarianship.* New York: Neal-Schuman Publishers.

McGregor, D. (1960). *The human side of enterprise.* New York: McGraw-Hill.

McKechnie, L.E.F., & Pettigrew, K.E. (2002). Surveying the use of theory in library and

information science research: a disciplinary perspective. *Library Trends, 50*(3), 406-417.

Moilanen, J.H. (2002). Leader competency and army readiness. *Military Review, 82*(4), 56-63.

Moniz, E. J. (2001). Leadership in war and librarianship. *The Book Report, 19*(5), 21-22.

Murphy, M. (1988). *The managerial competencies of twelve corporate librarians*. Washington, D.C.: Special Libraries Association.

Nicely, D., & Dempsey, B. (2005). Building a culture of leadership: ULC's Executive Leadership Institute fills libraries' biggest training void. *Public Libraries, 44*(5), 297-300.

Nowlin, D.L., & Hickok, C. (1992). Executives look in the mirror. *The Healthcare Forum Journal, 35*(4), 64-69.

Oakland, J.S. (2003). *Total quality management: Text with cases*. Burlington, MA: Butterworth-Heinemann.

Openo, J. (2005). The leadership institute vision statement. *PNLA Quarterly, 69*(2), 11-13.

Orenstein, D. (1999). Developing quality managers and quality management: The challenge to leadership in library organizations. *Library Administration and Management, 13*(1), 44-51.

Osa, J.O. (2003). Managing the 21st century reference department: Competencies. *The Reference Librarian, 81,* 35- 50.

Osif, B.A. (2004). Leadership. *Library Administration and Management, 18*(3), 162-166.

Ouchi, W.G. (1981). *Theory Z how American business can meet the Japanese challenge* Reading, Mass.: Addison-Wesley.

Parker-Gibson, N. (2003). Qualities of a 21st-century librarian. In Bridges, K. (Ed.). *Expectations of librarians in the 21st century*. Westport, CT: Greenwood Press.

Peresie, M. & Alexander, L.B. (2005). Librarian stereotypes in young adult literature. *Young Adult Library Service, 4*(1), 24-31.

Peters, T.J, & Waterman, R.H. (1982). *In search of excellence: Lessons from America's best-run companies*. New York, NY: Warner Books.

Pine, J., & Tingley, J. C. (1993). ROI of soft-skills training. *Training, 30*(2), 55-55.

Rasmussen, J.L. (1989). Analysis of Likert-scale data: A reinterpretation of Gregoire and Driver. *Psychological Bulletin*, 105(1), 167-170.

Reichert, G. (2006). Communication skills; pin back those ears - how to nail a key leadership skill. *New Zealand Management*, March, 46+.

Riggs, D. (1997). What's in store for academic libraries? Leadership and management issues. *The Journal of Academic Librarianship*, *23*, 3-8.

Robinson, L.T.K. (2006). Curmudgeons and dragons?: a content analysis of the Australian print media's portrayal of the information profession 2000 to 2004, *LIBRES Library and Information Science Research Electronic Journal, 16(*2), http://libres.curtin.edu.au/.

Romano, E. (1999). Leadership how do you score?. *Journal of Property Management*, *64*(4), 22-26.

Sager, D. (1999). Looking through the glass: Leadership views the future. *Public Libraries. 38*(2), 89-92.

Saunders, L. (1999). The ACRL/Harvard Leadership Institute: professional development at its best. *College & Research Libraries News*, *60*(8), 645-647.

Scholtes, P R (1999). The new competencies of leadership. *Total Quality Management*, *19*(4&5), S704-S710.

Schreiber, B., & Shannon, J. (2001). Developing library leaders for the 21st century. *Journal of Library Administration*, *32*(3/4), 35-57.

Shank, J.D. (2006). The blended librarian: a job announcement analysis of the newly emerging position of instructional design librarian, *College & Research Libraries, 67* (6), 515-524.

Sheldon, B.E. (1999). Leadership in the workplace. *Texas Library Journal*, *75*(4), 142+.

Shewchuk, R., O'Connor, S., & Fine, D. (2001). Building an understanding of the competencies needed for health administration practice. *Journal of Healthcare Management*, *50*(1), 32-47.

Shoaf, E.C. (2004). New leadership for libraries: Who has the right stuff?. *College & Research Libraries News*, *65*(7), 363-365, 375.

Sims, L.S. (1979). Identification and evaluation of competencies of public health nutritionists. *American Journal of Public Health, 69 (11)*, 1099-1105.

Strand, G.A. (1981). Community leadership competencies in the northeast US: Implications for training public health educators. *American Journal of Public Health*, *71*(4), 397-402.

Sullivan, M. (1999). Leadership in the national arena. *Texas Library Journal. 7*(4), 140-141.

Suwannarat, P. (1994). Library leadership in research university libraries. (Doctoral dissertation, Peabody College for Teachers of Vanderbilt University).

Taylor, F.W. (1911). *The principles of scientific management*. New York and London: Harper. Also available from Project Gutenberg at http://www.gutenberg.org/ebooks/6435

Tichy, N.M. (2002). *The leadership engine: How winning companies build leaders at every level*. New York, NY: Harper Collins.

Tompkins, J. A., & Daly, F. E. (1992). Relying on competency-based training for computer-based systems. *Industrial Engineer,* 24(5), 46-46.

Tonn, J.C. (2003). *Mary P. Follett : creating democracy, transforming management*, New Haven: Yale University Press.

Twehous, J., Groves, D.L., & Lengfelder J.R. (1991). Leadership training - the key to an effective program. *Social Behavior and Personality*, *19*(2), 109-120.

Unaeze, F. (2003). Leadership or management: Expectations for head of reference services in academic libraries. *The Reference Librarian, 81,* 105-117.

von Dran, G. (2005). Human resources and leadership strategies for libraries in transition. *Library Administration and Management*, *19*(4), 177-184.

Wedgeworth, R. (1989). Robert Wedgeworth. In Gertzog, A. (Ed.). *Leadership in the library/information profession*. Jefferson, NC: McFarland & Company, Inc.

Weiner, S. (2003). Leadership of academic libraries: a literature review. *Education Libraries*, *26*(2), 5-18.

Werther, W.B, & Kerr, J.L. (1995). The shifting sands of competitive advantage. *Business Horizons*, *38*(3), 11-17.

What does it take to lead? (2006). *Healthcare Financial Management*, *60*(1), 78-81.

White, M.D., & Marsh, E.E. (2006). Content analysis: A flexible methodology. *Library Trends, 55*(1), 22-45.

Winston, M.D. (2001). The importance of leadership diversity: The relationship between diversity and organizational success in the academic environment. *College & Research Libraries*, *62*(6), 517-526.

Winston, M.D., & Dunkley, L. (2002). Leadership competencies for academic librarians: The importance of development and fund-raising. *College & Research Libraries*, *63*(2), 171-182.

Wright, K., Rowitz, L., Merkle, A., and Reid, W.M. (2000). Competency development in public health leadership. *American Journal of Public Health*, *90*(8), 1202-1207.

Wyrick, J., & Brothers, S. (2003). Searching for new leadership. *Kentucky Libraries*, *67*(4), 23-25.

Young, A., Hernon, P., & Powell, R. (2006). Attributes of academic library leadership: an exploratory study of some Gen-Xers. *The Journal of Academic Librarianship*, *32*(5), 489-502.

Young, A. M., & Kacmar, K. (1998). ABCs of the interview: The role of affective, behavioral, and cognitive responses by applicants in the employment interview. *International Journal Of Selection And Assessment*, *6*(4), 211-221.