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Academic Librarians Use Evidence for Convincing: A Qualitative Study

Denise Koufogiannakis[1]

Abstract

The objective of this study was to explore and understand how academic librarians use evidence in their professional decision making. A grounded theory methodology was used, following the approach of Charmaz. The 19 participants were academic librarians in Canada. Data were gathered via online diaries and semistructured interviews over a 6-month period in 2011. The findings from this study illustrate how academic librarians use evidence in their practice, namely to convince. Convincing has two subcategories: confirming, which is usually applied to oneself, and influencing, which is usually applied to others. This study is the first to focus on how academic librarians use evidence in their decision making. The findings highlight the impact of collaboration and organizational dynamics on decision making and evidence use. Convincing emerged as the main theoretical concept in relation to how evidence is used.

Keywords

Evidence-based library and information practice, evidence use, convincing, decision making, grounded theory

Introduction

This article reveals findings related to how academic librarians use evidence sources in decision making related to their work. The data generated in this study led the researcher to the theoretical concept of "convincing" as the main way that academic librarians use evidence. This concept will be developed through an exploration of the environment in which academic librarians work, their level of decision-making power, and the subconcepts of confirming and influencing.

The study grew out of a desire to bring library and information studies (LIS) research to bear on the evidence-based library and information practice (EBLIP) model and determine whether it fits with how librarians use evidence. There is very little existing research on this topic, the exception being a study by Thorpe, Partridge, and Edwards (2008) and Partridge, Edwards, and Thorpe (2010), who found five different ways that information professionals experience evidence-based practice. All five categories include some level of influencing as it pertains to decision making, and depend on power and relationships within an organization.

This article is the second from a large study conducted by the researcher. The first (Koufogiannakis, 2012) focused on the sources of evidence used by academic librarians. Those findings reveal that academic librarians use a wide variety of evidence sources when making decisions. Sources include more scientific types of evidence such as research literature, statistics, data, and facts, as well as "softer" types of evidence such as tacit knowledge and input from colleagues. This article focuses on how the evidence sources are actively used to make decisions in practice.

Literature Review

Evidence-Based Library and Information Practice

Evidence-based library and information practice (EBLIP) began taking shape as a movement in 1997 (Eldredge, 1997). The model has largely been adapted from the evidence-based practice (EBP) model first developed in medicine (Guyatt, 1991). Hence, there has been a focus on quantitative research and critical appraisal of research methods that are common in health sciences fields. Booth (2000) defined EBLIP as

> An approach to information science that promotes the collection, interpretation and integration of valid, important and applicable user-reported, librarian observed, and research-derived evidence. The best available evidence, moderated by user needs and preferences, is applied to improve the quality of professional judgements.

Practicing librarianship in an evidence-based way provides a structure to approach decision making. It begins with an issue or problem that arises in the workplace—an area in which librarians are looking to improve service. The problem may start out somewhat vague, and must be formulated into an answerable, well-built question. A well-built question helps to determine some of the key terms that will be used in

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[1]University of Alberta Libraries, Edmonton, Canada

Corresponding Author:
Denise Koufogiannakis, Collections & Acquisitions Coordinator, University of Alberta Libraries, Edmonton, Alberta T6G 2J8, Canada.
Email: dak@ualberta.ca

a search strategy. Depending on the subject area or domain that the question falls into, databases within and beyond the library literature are searched to find research evidence. Once relevant research is found on the topic, the evidence is critically appraised to determine whether it is valid, reliable, and applicable to the librarian's situation. This knowledge is then applied to the librarian's practice. The final step is to evaluate the process and determine what impact was made, where gaps remain, and where improvement is needed for the next time. EBLIP is a continual cycle of improvement for the way librarians work and make decisions (Booth & Brice, 2004).

While research has been conducted in areas related to EBLIP, such as on the state of LIS research, systematic reviews in LIS, or the impact of evidence summaries, to date there has been very little research evidence about the EBLIP model itself. The EBLIP movement has embraced this model as a good way to improve practice, but we do not know whether that is actually the case.

Decision Making

As the purpose of evidence-based practice is to make better professional decisions, and librarians work within organizations, what is known about decision-making theory may shed light on how academic librarians use evidence in their decision making in the workplace. Decision making is "concerned with the process of generating options and then choosing among them" (Furnham, 2005, p. 525). Within organizations, decision making is a complex process, affected by many variables, including methods of decision making, biases, strategies, and relationships.

As individuals, we all make decisions in the workplace every day regardless of our role in the organization. Academic librarians make independent decisions related to aspects of their professional work, and other times make group decisions related to more complex aspects of organizational direction and management. Decisions require the consideration of options and judgment making, which in turn leads to actions that will impact the organization. Ideally, decision making follows a rational process that assumes that the problem is a clear one, and that the person making the decision has complete information; that all the criteria and alternatives can be identified by the decision maker; that there will be clear preferences that will be weighted and rated appropriately; that there are no time or cost constraints; and that the optimal alternative will be the one chosen (Robbins, 2005).

In reality, decisions are rarely made based solely on rational processes. Individuals have different decision-making styles, and biases also come into play. Hence, many things lead people to make judgments that are less than optimal. Decisions are influenced by a host of personal factors including memory, perception, motivations, past experiences, and beliefs that lead to biases (Furnham, 2005). There are many biases that impact decision making, including confirmation bias, availability bias, representative bias, overconfidence bias, and framing bias (Greenberg & Baron, 2008; Robbins, 2005).

Group decision making in organizations adds further complexity and dimensional factors to how decisions are ultimately made. One of the strengths of groups is in bringing together more diverse viewpoints as well as information and knowledge that bring more input and alternatives to the decision-making process (Greenberg & Baron, 2008). Robbins (2005) noted that groups make higher quality decisions and working in groups generally leads to an increased acceptance of the chosen solution. However, groups take longer to reach decisions, and are less efficient than individuals (Furnham, 2005). Potential disagreement between group members may also breed ill-will, which, if disruptive, could negatively impact group decisions. As well, if groups are controlled by those trying to please a dominant leader, there will be a lack of open discussion of possible solutions (Greenberg & Baron, 2008).

Choo (2006) outlined four models by which decision making in organizations occur: the rational model, process model, political model, and anarchic model. He notes that goal uncertainty and procedural uncertainty are the two main factors in how difficult it is to make a decision. Goal uncertainty is higher when goals are ambiguous and when there is disagreement about goals. Procedural uncertainty is higher when there is no prior experience in dealing with a problem, and when there are time constraints or pressures such as in a crisis situation. At the low end of procedural and goal uncertainty is the rational model of decision making, which occurs when goals and procedures are clear, and the organization relies on rules and procedures, avoiding uncertainty. The process model focuses on routines that provide structure and goals that are clear, but in situations where alternatives are not clear. It results in a process that involves much searching for, and evaluating options. There can be many delays with this type of decision making, due to the focus on exploring alternatives and being open to those alternatives. The political model is one where goal uncertainty is high and procedural uncertainty low. This type of decision making occurs when groups are involved that have different interests and take different points of view. There will be differences of opinion about what is most important. Choo notes that this model is most likely to occur when "the organization is experiencing high levels of (1) environmental uncertainty, (2) resource dependency, and (3) task interdependency" (p. 220). This leads to goal conflict within the organization and causes alliances and coalitions to be formed to strengthen positions, with the purpose of strengthening a group's power within the organization. Finally, the anarchic model is a situation where goals and procedures are uncertain. Organizations in this state function in organized anarchy. Decisions will be made when problems and solutions happen to appear at the same time. There is no coordinated approach to the problem solving. Decisions happen either by resolution, oversight, or flight.

Factors such as groupthink (Janis, 1972) and power (Dahl, 1957) also weigh heavily in organizational decision making. Groupthink arises from in-group pressures and results in an incomplete assessment within decision making. When groupthink occurs, members may not consider all alternatives in their decision making. They may be easily swayed by the group leader, rationalize assumptions, become overconfident, and not voice any concerns to maintain a cohesive group. Rowe, Boulgarides, and McGrath (1984) identified four components of power in organizations: power sharing, authority, organizational politics, and influence. Power does not have to be negative, although it is usually perceived that way. Almost all organizations have some form of a power structure in place, and use these structures to manage work and responsibilities.

An abuse of organizational power is frequently exhibited via organizational politics. Political behavior is most likely to occur in organizations when there is ambiguity over roles, a history of political behavior, during times when resources are scarce, and when employees do not feel empowered in their jobs (Greenberg & Baron, 2008). The greater the amount of organizational politics, the less satisfied employees feel and the less committed they are toward their organization (Cropanzano, Howes, Grandey, & Toth, 1997; Randall, Cropanzano, Bormann, & Birjulin, 1999).

Another factor that must be considered in organizational decision making is that of the organization's culture (Schein, 2010). Cultures will be different depending on the organization and the people that work there. Organizational culture is neither inherently good nor bad. On the positive side, it can provide a sense of identity and commitment among employees. On the negative side, the culture of an organization can stifle creativity and innovation if new ideas do not conform to underlying assumptions of the organization.

Decision Making in Libraries

There is not a great deal of research literature that brings together decision-making theory and organizational behavior within libraries. McClure and Samuels (1985) looked at the utilization of information for decision making in academic libraries. The findings showed a reliance on personal communication as input for decision making. Very few decisions used information from clients or empirical research. They also found that environments that are more open, where morale among staff is high, where there is good communication, and decision making is shared facilitate greater use of information in decision making (McClure & Samuels, 1985).

Casey's (2011) PhD research explored strategic priorities and change in academic libraries, using three case studies as part of her research. One of the aspects that she examined was evidence-based practice and its use by the organization. In all three cases, she found that the Directors of the libraries used evidence as part of their decision making, particularly in relation to usage and service quality, and that this use is also mirrored by staff at all levels of the organization. Casey found that libraries are using data and other forms of evidence when making decisions in diverse areas of library operations, such as collection development, information literacy, management of departmental workflows, and the alteration of service provision.

In a 2008 study by Hiller, Kyrillidou and Self, the results were quite different, however. The researchers found that among participating ARL Libraries, "There was little evidence of a 'research culture' or institutional research infrastructure that encouraged and supported data-based decision making" (p. 228), and that many staff prefer to "rely on their own assumptions and past practices to make decisions" (p. 228). The authors found that leadership and organizational culture that supported evidence-based decision making were required elements if evidence was to be integrated into decision making as a part of normal processes.

Aims

The objective of this study was to explore and better understand how academic librarians use evidence in their professional decision making. In this respect, the researcher aimed to gain insights into how the current EBLIP model may need to change, and to understand the role of organizational behavior as it applies to the decision-making process.

The following research questions were posed:

Research Question 1: What forms of evidence do academic librarians actually use when making professional decisions? Why do they use these types of evidence?
Research Question 2: How do academic librarians incorporate research into their professional decision making?

The definition of evidence used within this study was from the Oxford English Dictionary: "the available body of facts or information indicating whether a belief or proposition is true or valid" (Evidence, 2010). In evidence-based practice, evidence is normally recognized as research; however, the first article published from this study (Koufogiannakis, 2012) shows that academic librarians use a multitude of evidence sources depending on the situation and decision to be made. This article focuses on how and why they use those forms of evidence.

Method

The study used a grounded theory methodology, following the approach of Charmaz (2006). The methods used to collect data were online diaries (blogs) and semistructured interviews. Ethics approval was received from Aberystwyth University, where the researcher was a student, and the University of Alberta, where the researcher is employed as a librarian.

The study used a purposeful sample of Canadian academic librarians with a total of 19 participants from across Canada. The study aimed for depth and richness of information rather than higher number of participants, as the data are not meant to be generalized, but will be used to provide insights that may aid in the development of evidence-based approaches in librarianship.

The 19 participants were geographically dispersed across Canada and were all English language speakers. All worked in academic positions, identified themselves as academic librarians, and worked in a variety of different roles and subject areas. The participants' number of years of experience as a librarian varied widely, ranging from less than 2 years to more than 30 years. They represented all levels of experience, from new librarians in their first job to senior librarians nearing retirement. Some librarians had many years of experience but had recently begun new positions, while others had been in the same position for many years. Each participant's familiarity with evidence-based practice was assessed based on an analysis of comments in the diaries and interviews, and it was determined that eight participants were very familiar with EBP, three were moderately familiar, and eight had very little to no familiarity with EBP.

The process of data collection occurred over a period of nearly 6 months, simultaneously in conjunction with data analysis. Data collection occurred in a theoretical manner; as concepts emerged and patterns were discovered, the researcher followed-up on those emerging concepts with the later participants.

Participants wrote in their online diaries for a period of 1 month. They were asked to note questions or problems that related to their professional practice and how they resolved those issues. The diary keeping took place using *WordPress.com* online blogging software that allows for blogs to be kept private. All participants who completed the diary portion of the research agreed to a follow-up interview. The semistructured interview process (via telephone/Skype) allowed clarification and deeper analysis of specific aspects that participants may have noted in their diary entries, and allowed participants to look holistically at their experience and comment on the overall process.

Analysis of the diaries began as each one was completed. The process of "generating, developing, and verifying concepts" (p. 57) outlined by Corbin and Strauss (2008), as well as by Charmaz (2006), was used to closely analyze the text and discover and group concepts related to the decision-making process of participants. As additional diaries and interviews were completed, the information gained from the earlier data was used to refine concepts and discover new ones. Memo-writing was used to keep a reflective record of the approach to the research as well as emergent concepts. An open coding approach was used on a printed copy of the diary and interview transcripts, and later transferred into the *NVivo* software program, which was used to assist with the management of data analysis. Very specific codes were later grouped into categories, as analysis was refined and a picture of the findings began to emerge. Saturation of the data was reached by the 16th interview.

Findings

When examining the research data collected for this study, the scenarios presented by the participants illustrate that there are two broad categories of librarian decision making.

1. *Decisions that the individual librarian has the autonomy/power to solve and implement on his or her own.* Two examples are making monograph purchases, or determining the content of an information literacy session. Usually these are of minor-medium importance in the overall context of the library, and the impact is not large, or is contained.
2. *Decisions that the individual librarian participates in but which involve a group/team who will make the decision or recommendations.* Two examples are determining a new model for reference service, or deciding on a new library-wide program for information literacy. Usually these types of situations are of major importance and will have a large impact. The University Librarian or other senior administrators are often involved. In some cases, the University Librarian will impose a decision following recommendations from a group.

These two different situations in which academic librarians make decisions are explained in more detail below, in the context of how the decisions are made and what is done differently depending on who makes the final decision.

Using Evidence to Confirm

This study revealed that one of the main reasons librarians use evidence is to confirm that the decision they are making is correct. Confirming generally applies in situations where an individual decision is being made, or when the librarian is part of a well-functioning group that she or he feels comfortable with.

Confirming is nearly always positive because you are seeking to better understand something and add to your knowledge as a professional. What came through very clearly in the data from participants is that academic librarians confirm to feel better and more confident that they are doing the right thing while remaining open to new possibilities. They may have initial thoughts, reactions and instincts, but they want to confirm those instincts with other, more concrete sources of evidence to proceed with their decision in a more confident manner. The librarians bring together the soft evidence of their initial gut instinct or their own knowledge upon reflection, with harder sources of evidence that either corroborate the soft evidence or make the librarians rethink

their initial position on the matter due to new evidence that was not previously known or considered.

The literature is a common evidence source consulted by academic librarians. One of the reasons that academic librarians go to the literature is to confirm their existing knowledge and ensure they have a firm grasp of the issues before making a decision. Even when the literature fails to present new ideas or evidence that they hoped it would, academic librarians appreciate the reassurance that verifying their thoughts against the literature brings:

> So, the lit search, ah, I think it was useful, at least in terms of making—giving me confidence that I wasn't overlooking anything major. (Librarian 1, interview)

The confirmation librarians receive when their initial thoughts are echoed by other sources of evidence builds confidence and provides a sense that they are doing what is right. Participants felt that they could not base decisions solely on their existing knowledge because best practices are constantly changing and they need to continually learn. From those librarians just starting out to those that were quite experienced, there was a common feeling throughout that they did not know everything and wanted some form of reinforcement whether it be from the literature, input from colleagues, or some other source of evidence. Part of the interview conversation with Librarian 13, a highly experienced librarian, is illustrative of the approach commonly taken and the reasons why it is important:

Researcher: Would this type of an approach in terms of bringing some of the research literature to bear on the decision—is that something that you normally try to do?

Librarian 13: Yes, it's my practice. I don't have enough confidence that I know enough. I mean, sometimes I can be quite didactic but generally I like to be able to back up my contentions. I can't always trot it out. If I'm going to open my mouth and be determined about what I've got to say, if I believe that; I'm also quite flexible.

As Librarian 13 illustrates, making a decision requires confidence and acting with knowledge that what you have decided is best in the circumstances. It also requires the openness and flexibility to consider other pieces of evidence that may change one's outlook and final decision. Confirming takes place in a moment of time, but the decision can change depending on what new evidence is brought to bear on the situation. Librarian 17 also speaks to this need to gather evidence to feel more confident in decision making:

> I just think that way and I feel more confident about what we're doing if I know that we have—that we've tried to collect evidence, we've tried to assess what we're doing and to me it's just more confidence in going forward with other things. (Librarian 17, interview)

When participants were asked about sources of evidence they consult, "what other libraries or librarians do" arose as a very frequent way that librarians considered evidence. However, "what other libraries do" in itself is not an evidence source—the evidence sources that could contain this type of information include articles, catalogue records, websites, social media communication, and so on, that discuss what is happening in other libraries. "What other libraries do" is actually a reason that academic librarians seek evidence, as part of their overall confirming. They are comparing their own institution's services, or their own ideas, with what other libraries or librarians do, to confirm that they are on the right course. Librarian 8 explained a situation in which she was revising slides for an information literacy session that she has taken over from another librarian who used to teach the class:

> A couple of other people looked at the session as well, a couple of my colleagues, and they said, "oh, there's too much stuff here" so that kind of corroborated my initial gut feeling. So I just, I kind of re-jigged based on, kind of, like, my own common sense. (Librarian 8, interview)

The input from Librarian 8's peers was enough in this case to confirm her initial instinct that the slides needed to be simplified. This is confirming—it brings new ideas and situates actions in the broader context of one's peers. Individually, librarians want to know what their peers are doing, and in that respect, it becomes a way of confirming what an individual librarian is doing in his or her own practice.

Confirming is done for oneself. It is an act that reassures and corroborates instinct or tacit knowledge. The participants' actions show that they do not just gather evidence for external purposes, but that they gather and use evidence as part of their own professional development and regular practice of keeping current. Librarian 7's description of her use of evidence in this way captures the essence of this type of evidence use. Librarian 7 was discussing her information literacy teaching, and what she teaches others about Google. She had come across an article on the topic of teaching Google, and read it as part of her normal routine of staying current in areas that are important to her. While she noted that it was not a research article, and did not really provide her with anything new to add to her teaching, it was useful for her own reassurance:

Librarian 7: Yes, it kind of confirmed what I was already doing but also gave me something to back-up why I was saying what I was saying about Google I guess, kind of.

Researcher: Yes.

Librarian 7: And reassured me that yes, okay, other people are teaching everything I am.

Researcher: Okay. And when you say to back up what you were already saying, do you mean to yourself or other people? Like would you reference this outward?

Librarian 7: No, no—to myself.

Researcher: To yourself, okay.

Librarian 7: Yes.

While not usually the case, confirming can occasionally be negative, if a librarian consciously discredits or avoids evidence that does not support his or her preconceived notion of what is best. For example, if a librarian prefers print books to electronic books and as a result only seeks evidence that confirms his or her preconception. Librarian 1 hints at this possibility of the use of evidence:

> I think a lot of times, I find myself doing this, and I know that other people certainly do as well; that you often have your intuition, and then you go and find the facts to support that, and then you say it with great confidence. (Librarian 1, interview)

While finding the facts to support one's initial thoughts can be quite positive if approached with an open mind, it is negative when there is a predetermined outcome. However, throughout this research, the positive nature of the use of evidence as confirming came through continually. Librarians were, if anything, hard on themselves that they should find more evidence or do a better job at being thorough.

Using Evidence to Influence

While some decision making by librarians is individual, often it is done in a group setting, especially for decisions that will have a major impact on library users or staff. This research shows that group decision making leads librarians to try and influence what the final decision will be. Influencing can be positive or negative. When in a positive work environment, participants often first go through the confirming stage for themselves, but when working with others, they bring evidence to the table to enable the group to make the best decision possible. In a positive situation, individuals feel free to speak and be heard, and will reach a consensus. What an individual brings to the table, in this environment, is a positive influencing.

When participants were in a negative environment, they often felt they were not being listened to, or their concerns not heard. They then adopted strategies to deal with this. One such strategy was to bring research evidence to the table in support of their viewpoint, where someone with an opposing viewpoint may not have done the same. Research is generally well regarded in an academic environment and therefore cannot be as easily dismissed as a person's own opinion, for example. Any form of evidence that shows "what other libraries do" is also seen in a very favorable light, as libraries may be more likely to make changes based on what is happening around them at other institutions. Other strategies may be to convince individuals and bring them on-side prior to any decision, or to stress particular points depending on what the decision maker needs to hear to be persuaded. In all cases, the individual wants to influence the final result, and where a work environment is negative, they will use evidence as a tool. This use of evidence for influencing is very much in keeping with what Partridge et al. (2010) described in their research regarding librarians' experiences of evidence-based practice.

Different levels of decision-making control emerged from the data in this study. It became clear that librarians do not always have control over their own decisions. When an individual librarian makes his or her own decision, influencing is not required. Rather, the librarian would look to evidence sources to confirm things for themselves before making a final decision. In situations where a group makes the final decision, or where someone else makes the final decision, influencing is widely used. The next sections describe each of these categories in more detail.

A Group Makes the Decision. Librarians often work in groups, whether it is a team, committee, or task force. Generally, an individual's approach to a group decision is going to be different depending on several factors, such as how much they care about the topic that is being discussed, the personalities and past experiences with the other people in the group, and the overall dynamics of how that group works together. Librarian 2 illustrates this when she discusses some of the factors she takes into account when approaching a decision within a group setting:

> Where the group setting makes a difference, I think, is that depending upon whether or not I'm a champion for a particular project, I may present, you know—I may frame the evidence in a way that I think would speak to the needs of the people in the group. (Librarian 2, interview)

Similarly, Librarian 5 discusses the strategy involved in group decision making, wherein the needs of the people involved must be taken into account, along with a variety of other factors:

> I think you have to be very strategic because you have to recognize what the other person's concerns are in order to address them and that's the strategic part; and also being able to address the mandates of the library and all those other conflicts, right? (Librarian 5, interview)

Presenting evidence in ways that meet the needs of the individuals involved is not necessarily negative. It shows

awareness of the context and the knowledge levels of one's peers. Participants noted that depending on the interests of the specific field in which a fellow librarian works, that person will have certain questions and will want to know more about particular aspects. Anticipating some of these questions and bringing evidence that is needed to the discussion, enables the group to be more productive.

Many participants noted that consensus was a method used most frequently for decision making in their workplace. This method was viewed positively, as it allowed for individuals to contribute to the discussion. However, as Librarian 2 points out, such group decisions do bring some added pressures due to group dynamics:

> A lot of the big library decisions at my library are made at a group level—either all librarians weighing in or coordinators of areas with staff consulting and making the decisions in the library staff management group . . . there is the added pressure of trying to read and work within the group dynamics in these situations. (Librarian 2, diary)

The dynamics of the group was a common discussion point with participants. If the group is small and fairly like-minded or open-minded, decision making is much more positive and proceeds faster. As Librarian 3 noted in reference to her situation,

> It's a small group, there's four of us, including me, so that, I think, helps with consensus, achieving consensus. I'm also fortunate, I think, in that the people on the group are fairly likeminded—you know, we have similar ideas about where the program should go, and we've also—a couple of us have been around, two of us have been around here for a while, so we are familiar with some of the issues and concerns that have been arising, and really do need to be addressed in some way or another in these recommendations. (Librarian 3, interview)

If the group is large, it is more likely to have differences of opinion or people that are "difficult" to work with. The greater the number of varying perspectives there are, the more that evidence to assist in the decision plays a role. Evidence is then brought in to influence the group that a particular choice is best. Again, this could be done in a very positive way, or in a way that simply makes the contributor's voice more loudly heard. Decision making in groups depends on the personalities involved, their convictions, and their willingness to make a decision with an open mind.

Someone Else Makes the Final Decision. A common scenario is one where someone else makes the final decision. This could be when an individual requires permission from his or her supervisor or the University Librarian to move ahead with implementation of a new proposal. It could be that a group has put forward recommendations that need to be approved by either the University Librarian, senior administrators, or the governing body of Library Council. Regardless of who makes the final decision in this case, it is someone outside that has not been directly involved with the decision-making process, but who has the final say over what happens. This is the situation where influencing is used the most.

This level of decision-making control affects librarians at all stages of their career. Even the most senior of people taking part in this study had to answer to someone else or at least gain their approval before moving ahead with certain decisions. The enormity of the decision may be greater for those in higher level positions, but the situation is essentially the same across levels in that individuals are unable to move ahead with decisions due to the organizational structure that requires approval at either a group or supervisory level. Academic librarians work within the confines of their organization, and that means either consensus or approval by others who may not be as knowledgeable about the topic, who may have radically different points of view, or who may not have the best intentions.

Sometimes the decision must be approved by a governing body, such as the institution's Library Council. This becomes a type of consensus where the entire librarian body can discuss the issue prior to it moving ahead. Consensus is what is sought but may not always be achieved. There may be a vote, in which the majority needs to support the decision for it to move ahead. This is a case where the body as a whole controls the decision even more than the University Librarian. Institutions are quite different in the level of power between the Library Council group and the Senior Administration. In both cases, however, the intent is to have some influence, based on the decision the individual or smaller group has made, to convince others to accept the recommendations.

Librarian 3 outlines a situation where the Library Council plays a very large part in the final decision making. This can be looked on as a barrier to moving things ahead, but Librarian 3 also recognizes the need to have participation and buy-in for the information literacy program she was presenting to succeed.

> We really do proceed on a consensus basis. I suspect the library leadership team could sort of say, "this is the way we are going" you know, and I think that they will endorse what we're doing, but I don't think they will . . . you know, they wouldn't do that without the majority of Library Council supporting it. Just the optics of it, and the Council is the official governing body of the library, so you know . . . and it would sort of be shooting yourself in the foot anyway, to go forward with it if you didn't have the support of Council, the majority of Council supporting it, because the nature of the program is such that we're going to need participation and buy-in from, if not everybody, then certainly the majority. (Librarian 3, interview)

More common than a governing body such as a Library Council having a final say in a decision, is the University Librarian or a senior administrator having the final decision regarding work that an individual or group did to make a

Table I. Levels of Decision-Making Control and Impact.

Who makes the final decision	Individual librarian's level of decision-making control	Impact of decision on the institution/users as a whole	Use of influencing
Individual librarian	Full	Low	None
Group the individual librarian is part of	Partial	Medium	Medium
Someone else after the librarian has made recommendations (individual or group)	Low moderate	High	High

decision. In this study, such decision-making power came across as contentious. In addition, where there is a negative work environment, it may result in individuals feeling that they do not have a voice. In such a case where someone else has the final decision-making authority, individual librarians are very attuned to thinking through what they need to do to influence that person's decision so that it is a positive experience for them or the group they have worked with to develop the recommendations. This is expressed by Librarian 18 who writes,

> I will have to *sell* this to the University Librarian. (Librarian 18, diary, researcher's emphasis)

The "selling" of a decision is an additional step that is required to move the decision forward. This is where evidence will be used to influence the individual or other people in the organization that the recommendations are sound.

Sometimes, key decision makers are outside of the library structure, but the librarian reports to them or works with them closely. This is another situation where someone else has control of the final decision, but the librarian has done a lot of work and wants to influence what is going to happen. As Librarian 1 described this type of a situation, she used phrases such as *have my story straight* and *spinning very hard*, which shows that she is using the evidence she previously gathered and wrote up, to influence the person whose decision may have a significant impact on her library:

> So, he hadn't read any of the briefing materials that I'd written up, which was not surprising I guess, and that's fine—to some extent I wrote it as background for myself so I would have my story straight going in. So, I sort of summarized that for him, and spinning very hard the kind of resources that would be needed to introduce records management to the organization. And he was fully in agreement with that. (Librarian 1, interview)

To summarize the findings on the use of evidence for influencing, Table 1 shows the various levels of decision-making control that a librarian will encounter in his or her practice, and how this impacts the use of influencing.

The level and impact of decision-making power is also connected to the work environment itself, which situates the librarian's experience and contributes toward the type and level of influencing that occurs when making decisions.

Impact of the Work Environment on Influencing

The findings from this research show that using evidence to influence others occurs in all types of academic library work environments, whether they are large or small libraries, as well as positive and negative work environments. The work environment does play a major role in determining the degree to which influencing occurs, and the strategies and efforts that go into such influencing.

Group decision making causes some consternation among librarians. They have less control over the outcomes and will often try to use evidence to influence the decision that will be made. In some environments, this situation is more pronounced because the organizational dynamics are more negative and there are power struggles. In other cases, the style of leadership and organizational culture will actually lead to a very positive environment in which librarians feel they can truly contribute to the situation.

Participants who felt they were in a positive work environment looked at the decision-making process in a very positive light. They used evidence to confirm their individual decisions, and when in a group setting they brought evidence to the table to influence others, but in a very positive way. The attitude was that others in the group would take that evidence into account, and together the group would make a decision. Hence, the influencing is very positive and without any ulterior motive. Generally, those working in this type of a positive environment discussed that decision making often occurs via consensus, and where it did not, they seem satisfied that an appropriate process was in place to facilitate good decision making that would be best for the institution.

Librarian 19 is illustrative of a librarian who is currently very happy with her workplace and has had a positive work experience:

> I feel like I've really lucked out landing here—my boss is the best manager I've ever seen, by far, and the work culture is happy and healthy. Sure, there are some politics, but compared to other places I've worked, this seems like paradise. (Librarian 19, diary)

When participants felt that they worked in a negative environment, they tended to look at the decision-making process with a cynical or skeptical view. These were the cases where evidence was used in a more strategic and negative way to influence the final outcome. What the evidence itself
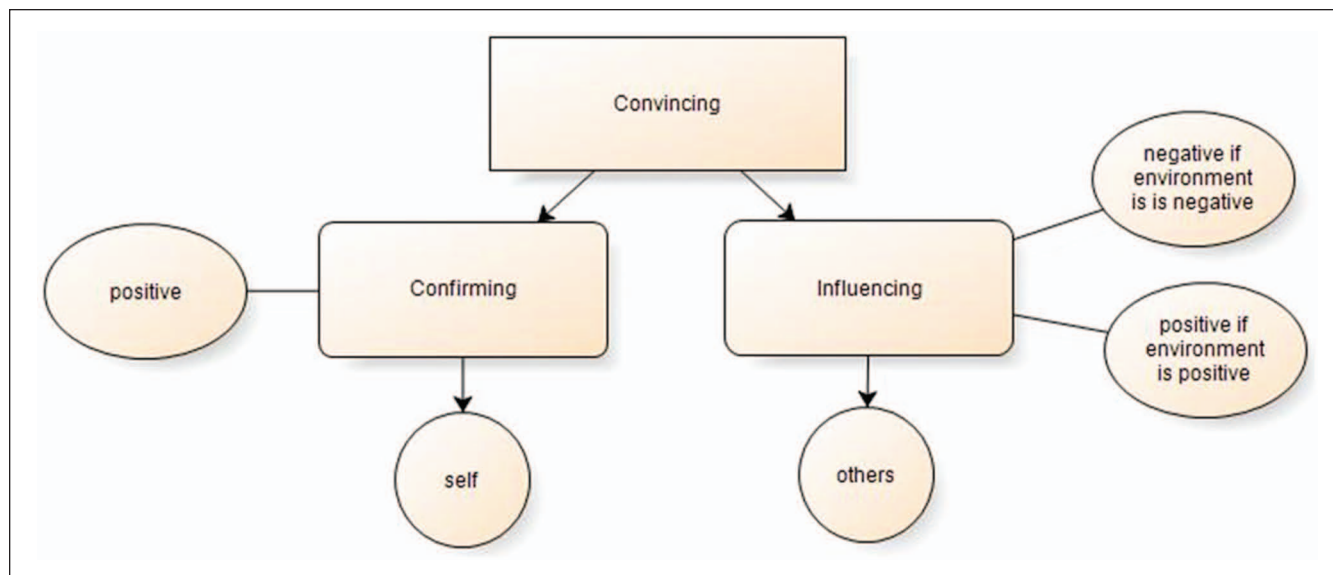
Figure 1. The concept of convincing in evidence use.

says or the process of determining the best evidence, becomes secondary. Being selective about evidence and looking at the evidence in terms of what would convince the group or (more usually) the individual who had power over the final decision, was very important. This type of environment had little consensus, and the person making the final decision was more likely to disregard what the others involved had to say. Based on past experience, those librarians working in this type of environment were attuned to moving forward with caution and being strategic in what they say and do.

Librarian 5 outlines how the librarians at her institution were dealing with a negative environment, where they felt they had no control over decision making.

> A meeting of librarians was held today to chat about our concerns, interests with respect to the Library. It became a discussion about the current lack of control of librarians in the decision-making processes of the library. Various issues were covered such as the political environment, consortia impact on the library, current and past practice of various library administrations, why/how this happened, our culpability in the process along with suggestions on how to regain some of that power, etc. (Librarian 5, diary)

Such an environment is disempowering and draining. When the work environment is so negative and decision making on important matters is completely removed from the role of academic librarians, it affects what people are able to accomplish. Of course, such situations are never simply black or white, and depending on the individuals involved, a situation could be viewed quite differently. These examples illustrate the complicated nature of academic library environments, and the fact that environments will change as people in

positions of power change, and in turn each individual's level of decision-making power will change accordingly.

Evidence Is Used for Convincing

The above sections described how evidence is used by academic librarians for confirming and influencing. Both these concepts are encapsulated under the broader term of "convincing." This is the main theoretical concept that emerged from this research (see Figure 1). To say academic librarians use evidence to convince does not necessarily imply a negative connotation. An individual can still be open-minded about what the evidence says and want to share that evidence with others. Sometimes, however, the person may already have a strong opinion about something and purposefully seek only that evidence that supports his or her position.

Confirming focuses on the *self*. It concerns a librarian's knowledge and positioning as a professional (even if the decision is part of a group). In this case, librarians look to the evidence to confirm and reassure themselves that they are on the right track with their decision making. They turn to the literature or to input from colleagues to verify their initial instincts. This process is a positive one because it is self-inflicted and builds confidence. Generally, the librarian comes to the process of looking for and using evidence to confirm in a very open minded and forthright manner.

Influencing focuses on *others* and what you need to do to contribute to what you feel would be a positive outcome. Influencing concerns transmitting what you think the decision should be to others that are involved in making the final decision to convince them to come to the same conclusion. Influencing can be a positive or negative experience

depending on the work environment. Evidence in this situation can become simply a means to an ends, and used differently depending on the circumstances and the people involved.

Work environment largely determines the convincing strategy. For example, in coworker relationships, how much power you hold, what is likely to convince someone, past experiences in dealing with particular people, and the perception of being heard in the workplace are all factors that impact the use of evidence and the reasons for using evidence. For larger decisions such as reconfiguration of the reference desk, the individual does not have control of the final decision, but can contribute to it. The work environment contributes to whether this is a positive or negative experience.

Depending on the work environment, evidence is used differently. If it is a positive work environment, academic librarians are more forthcoming with ideas, listen to others, and are open to what the evidence says. If the work environment is negative, there is often secrecy, a withholding of information, evidence is used selectively to make a case, situations are approached differently depending on personalities, there are feelings of hopelessness, and power-plays and strategizing are common.

Generally, librarians want to contribute to organizational decision making, but if they feel that they are not being listened to, they will be disempowered and look for other ways to influence the outcome (or some may simply give up). Ultimately, individual academic librarians are not in control of most final decisions. Therefore, they do what they can to influence and impact the decision indirectly. Even when they do have the final say in a decision, they look to evidence sources to convince themselves that they are doing the right thing.

Discussion

In this study, there were examples of group decision making that were positive and open, wherein all pertinent evidence is shared and discussed in a collaborative manner. This is in keeping with the positive aspects of decision making that are noted in the literature, namely, higher quality decisions, increased acceptance, bringing more alternatives to the decision-making process (Greenberg & Baron, 2008; Robbins, 2005), as well as with a collaborative, shared leadership environment (Mirijamdotter, 2010), and a creative workplace (Amabile, 1997) where individuals have positive challenges, encouragement, and support, enabling creativity to thrive. However, this study also encountered examples of group decision making that was negative and narrow, wherein evidence is picked and chosen to simply strengthen a predetermined position. This is a danger of group decision making, as noted by Greenberg and Baron (2008), especially when a dominant leader is involved, and members of the group do not feel the ability to contribute freely and openly

within the decision-making process. Going forward, the EBLIP model should take into account the large degree of group decision making that is done in academic libraries and how such group decision making and the use of influencing within a group dynamic may lead to the use of evidence for rationalization of decision making rather than decision making that is based on the best evidence.

The complexity of organizational decision making is well captured in the four models outlined by Choo (2006). Procedural uncertainty and goal uncertainty play a large role in organizational decision making. The decision-making environments that were present in the organizations in which participants in this study worked clearly had an influence on how they approached their decision making. More negative examples emerged when goals or processes were unclear, or when there was conflict with a senior decision maker. In situations where an anarchic decision-making environment seemed to be operating, one way that the librarians coped with the lack of structure was to use research evidence as an advantage to back up the solution they would like to see happen. This was also the case when in a political situation where there were differing viewpoints. Research evidence was used to make a stronger case. When goal uncertainty and conflict within the organization were low, as in the cases of the rational and process models noted by Choo, group decisions by the librarians involved proceeded more smoothly. Because there was a clear direction or at least a clear process to reach a decision, and conflict was not a dominant aspect of the decision making, the librarians could work well with their colleagues in a group setting, bringing forward different forms of evidence and evaluating all the evidence sources to arrive at what they felt was the best decision.

The use of evidence for influencing that was found in this study aligns with the findings of Thorpe et al. (2008) and Partridge et al. (2010), who found five different ways in which information professionals experience evidence-based practice. All five categories include some level of influencing as it pertains to decision making, and depend on power and relationships within an organization. This research agrees with Partridge et al. when they conclude that "the practitioner and their environment will influence what approach can and should be used within a specific situation or context" (p. 294). No two situations are the same, and the process of applying evidence is not a simple one. This study indicates that in addition to using evidence for decision making, evidence is also used as a tool for influencing behavior. Such use does not negate the use of evidence for good decision making, but it adds complexity and an element that has largely been ignored within discussions about EBLIP. The EBLIP model does not account for such complexity in decision making, and follows a model that assumes good research will lead to good decision making. The EBLIP model must consider the complexities of organizational decision making as well as the other types of evidence that academic librarians use in their decision making. A reworking of the model

to account for these factors would provide greater guidance for librarians trying to practice their profession in an evidence-based manner.

When making group decisions, librarians feel more positive about the process if they are in an environment where they can contribute and collaborate on the decision. When this happens, the decision is likely to be more successful. As Greenberg and Baron (2008) point out, smaller groups tend to function more successfully, because group members are usually able to contribute more than in bigger groups. Librarians making decisions in groups should be aware of the potential danger of "groupthink" (Janis, 1982) and ensure that cohesiveness does not mean that group members are afraid to speak or contribute differences of opinion or contrary evidence. If that happens, it will diminish the effectiveness of the group's decision making. The individual questioning and exploring that is promoted within evidence-based practice needs to carry through into group situations, ensuring open discussion and evaluation of the available evidence.

Librarians are continually negotiating with others in the workplace. The more important the decision, the more likely that others will be involved in that decision making, and individual control is diminished. To compensate, librarians will try to convince others of what they feel will be the best decision. This convincing is often done using "hard" evidence sources, as those seem to be most persuasive to other people and increase the chance that the decision made will be agreeable to the librarian doing the influencing. This process can potentially be devious, but not likely. However, librarians may subconsciously be biased to a particular point of view if they do not consider all sides of the argument and look at all the evidence. In a well-functioning work environment, convincing can be used openly and honestly to the point where everyone can achieve consensus and work toward shared goals.

The EBLIP movement has not previously recognized or examined the reasons why librarians may be using evidence. It is assumed that evidence use contributes to better decision making. It is assumed that an individual librarian will make a decision and use research evidence to guide that decision. Group decision making and the dynamics of decision making within organizations has not been addressed, and is a gaping hole in the literature of evidence-based practice. The introduction of group and organizational dynamics within decision making will actually make the EBLIP model more meaningful because it is more true to how most librarians make decisions. Understanding that librarians use evidence to convince allows an entire organization to proceed with this as a known entity, and should enable that organization to look more completely at what the pertinent forms of evidence contribute to the decision, to weigh those pieces of evidence, and to make a decision that is more transparent. The use of evidence for convincing illustrates the complexity of decision making, particularly within academic libraries,

and points to the fact that evidence sources do not stand alone, and are not enough in and of themselves. The EBLIP process must account for the human interactions and organizational complexity within which decisions are being made.

This study has several limitations. First of all, it is not intended to be generalized to all academic librarians. The purposeful sample allowed for depth and richness of information, and saturation in the data was reached, but not all academic librarians would necessarily fit within these findings. In addition, library systems outside of Canada may operate differently and result in very different work environments and professional outlooks. Doing similar research on other librarian groups would strengthen the key findings and applicability of this study. In addition, the data collection methods included diary keeping by the participants for the period of 1 month. The very act of having to keep the diary was something that was not normal in their practice, and may have impacted their behavior. For example, they may have felt pressure to do more and be more methodical in their decision-making processes than they normally would.

This research was exploratory and based on some broad questions related to evidence use by academic librarians. The researcher explored the processes of how these librarians made decisions and the role that evidence played in that decision making. Factors that impact decision making were discovered, and participants' attitudes and feelings toward the decision making were noted. However, no attempt was made to test or determine whether the decision made was actually a good one, or whether the use of particular types of evidence had any proven impact on performance or service.

This study has demonstrated that more research is needed on organizational factors that impact the use of evidence, and the best ways to enable decision making. As Hiller, Kyrillidou, and Self (2008) noted, evidence alone is not enough, and without organizations that nurture a culture of evidence-based decision making throughout all levels of the organization, the incorporation of evidence will not become a normal part of decision making. To strengthen the findings of this study, as well as determine any differences within other areas of library and information studies, this study could be replicated with a different group of participants, such as public librarians, special librarians, or academic librarians in other countries.

Conclusion

This article examined how academic librarians use evidence for the purpose of convincing. Two major subcategories of convincing are confirming and influencing. Confirming focuses on the self and individual decision making, where librarians will look to evidence sources to confirm what they know and feel more confident in their decision. Influencing focuses on others, and the individual librarian's place in the decision making of a group, or where someone else makes the final decision. Academic librarians use evidence to try

and influence those people who have substantial power over the final decision. This type of influencing can be largely positive in a work environment that is supportive and open to ideas, or negative in a workplace where librarians feel they are not being listened to. In general, librarians put forward evidence to support their ideas, as something that is more powerful than simple conjecture or opinion.

These findings have addressed the research questions concerning why academic librarians use certain types of evidence, and how they incorporate research into decision making. The findings also speak to some of the elements that may be missing in the current EBLIP model and what needs to change with that model.

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Author Biography

Denise Koufogiannakis is the collections and acquisitions coordinator at the University of Alberta Libraries. She was recently awarded her PhD in information studies from Aberystwyth University, Wales, United Kingdom. Her primary research interest is evidence-based library and information practice.