Using a Multiple–Case Studies Design to Investigate the Information-Seeking Behavior of Arts Administrators

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ABSTRACT

The case study method, and in particular the multiple–case studies design, offers LIS researchers a proven tool for achieving a deep understanding of a specific phenomenon——for example, the information-seeking behavior of a particular user group. Although the case study method has been dismissed by critics who question the rigor of the approach, numerous studies over the past twenty years have demonstrated that the case study method can be used successfully to probe beneath the surface of a situation and to provide a rich context for understanding the phenomena under study. This article summarizes the application of the multiple–case studies design, in which a literal and theoretical replication strategy is used to identify consistent patterns of behavior and to uncover new and/or divergent themes. The motivation behind arts administrators' decisions to seek information is investigated using this approach and examples are given of sample selection, data collection, and analysis. Specific issues associated with the case study method are identified and practical steps used to address them are suggested.

INTRODUCTION

Since the early 1980s, when Raya Fidel (1984) published her seminal article on the case study method, case studies have become familiar tools for library and information science (LIS) researchers and have been used successfully to investigate a far-reaching range of topics and users. The case study represents a specific tradition within the qualitative research paradigm (Creswell, 1998) and "attempts, on one hand, to arrive at a comprehensive

understanding of the event under study but at the same time to develop more general theoretical statements about regularities in the observed phenomena" (Fidel, 1984, p. 274). Because case studies are intended to take the reader of the research into the world of the subject(s), case studies can provide a much richer and more vivid picture of the phenomena under study than other, more analytical methods (Marshall & Rossman, 1999).

Like other traditions within the qualitative research paradigm, case studies are used primarily when researchers wish to obtain an in-depth understanding of a relatively small number of individuals, problems, or situations (Patton, 1990). Weick (1979), writing about research in organizations, presented a clear description of the tension among the three primary goals of research: generality, accuracy, and simplicity (by which he meant not only the simplicity of the study but also the understandability of the results). He said that generality is bought at the cost of accuracy—that while a broad study (such as a widely distributed survey) may produce results that can be applied at a general level to a large number of organizations, the results are unlikely to present an accurate description of any one organization. This tension exists in case study research as well—depth of understanding about the phenomena under study is bought at the cost of "confident generalizations" (Patton, 1990, p. 53) about the applicability of the results to individuals, problems, or situations outside of the study parameters.

This article seeks to describe the nature of case study research, specifically the use of the multiple–case studies design described by Yin (1994), and to give an example of its application in a study of the information-seeking behavior of senior arts administrators.

What Is a Case Study?

A case study is "an exploration of a 'bounded system' . . . a program, an event, an activity, or individuals" (Creswell, 1998, p. 61). The concept of a case study comes from the practice of law, in which the unit of analysis is a single case before a court. We are familiar with the use of case studies as pedagogical tools in law and business (for example, the Harvard Business School case study approach). Sigmund Freud made the case study famous as a method of documenting his observations of patients in psychoanalysis (Breuer & Freud, 1895). Often a case study recounts a rare or unusual condition or event, but it may also be a description of a classic situation that can be used as a model or exemplar.

Historical Development

The case study method as practiced in LIS research today has its roots in the social sciences, especially in sociology. In 1992 *Current Sociology,* the journal of the International Sociological Association, published an issue devoted to the development and use of the case method in sociology (Hamel, 1992). Any student of the case study method would be well served to review

its history, and the annotated bibliography contained in that issue provides an excellent source of further readings (Dufour & Fortin, 1992).

In the early part of the twentieth century, case studies were referred to as tools in the realm of social work; by the 1930s the case study method was accepted as a procedural alternative to the statistical method among researchers at the University of Chicago (Platt, 1992). Case studies were seen as valuable because of the rich context in which they placed the subjects of the inquiry. Unlike statistical studies, case studies were perceived to allow the researcher to see beneath the surface of the situation into personal meaning (Burgess, 1928). However, proponents of the statistical method gained momentum, and by the middle of the century case studies were largely relegated to the role of preliminary or exploratory research, where they were used to "suggest hypotheses for more systematic investigation" (Platt, 1992, p. 28).

In the 1960s a new generation of researchers became interested in qualitative methods, especially as an approach for developing theory (Glaser & Strauss, 1967). These researchers continued to face critics who raised issues concerning the reliability (the extent to which repeating the same procedures under the same conditions would produce the same results) and validity (the extent to which the research matched its stated goals) of the findings of their studies. Case studies in particular were criticized because of the lack of rigor of the research methods employed and the degree to which personal bias, either of the participants or of the researcher, could influence the findings and conclusions. The way in which case studies were being carried out led Simon, in a textbook on basic research methods, to conclude that "the investigator makes up his procedure as he goes along" (1969, p. 276).

Another reason that case studies were particularly vulnerable to criticisms of this nature was the use of participant observation as a method of data collection instead of the more accepted approach of structured interviews or questionnaires. In any study that relies on observed behavior, there is always the possibility that the very act of studying the behavior will alter it.[1] With participant observation, not only does the researcher record the behavior, he also may play a variety of roles in the activities being studied. The advantage of this approach is that the participant-observer may gain access to groups or situations otherwise closed to researchers; he can also be opportunistic about following new research directions as they present themselves. The obvious drawback to the approach is the potential for bias, both in data collection and analysis.

As the interest in qualitative methods revived, researchers created a new language to describe certain concepts related to reliability and validity and to address the concerns over the lack of a rigorous research structure. Guba (1981) proposed "trustworthiness" as a surrogate measure for validity and reliability in naturalistic inquiries. "Trustworthiness" in this context is a belief system that informs the whole way in which the researcher

approaches a research study (Guba & Lincoln, 1982). By structuring the study to address the four aspects of trustworthiness—that is, truth value, applicability, consistency, and neutrality—the researcher hopes to achieve the following outcomes:

- Credibility: the credibility of any qualitative research study speaks to the issue of whether the findings are plausible; this in turn rests on the steps taken during the whole process of data collection and analysis. Key among the factors that ensure credibility are the completeness of the data collection, the use of multiple analytical perspectives, and member checks to confirm the accuracy of the conclusions drawn (Yin, 1994).
- Transferability: the transferability of a research study addresses the question of whether the findings are "context-relevant" or subject to non-comparability because of situational uniqueness (Guba, 1981, p. 86). To provide a context for evaluating the transferability of the findings, the researcher should use theoretical and/or purposive sampling and develop a thick description of the data that can be reviewed by others.
- Dependability: the goal of confirming the dependability of the data to ensure the stability of the findings is a challenging one for researchers; overlapping methods of data collection and/or stepwise replication are the recommended approaches (Guba, 1981). However, due to practical limitations, many researchers must rely primarily on establishing a good "audit trail" of project documentation that can be followed by others.
- Confirmability: to avoid the effects of investigator bias, steps should be taken to collect data from a variety of sources and, if possible, by researchers with different perspectives. When these steps are not possible, the researcher should rely on "practicing reflexivity," which Guba describes as revealing the researcher's own assumptions to his audience (Guba, 1981, p. 87). This can be done by documenting personal reactions and beliefs about the data.

By specifically addressing the concerns of critics, researchers working within the qualitative research paradigm hoped to gain acceptance for their methods. However, because the case study approach typically involves "intense analyses of a small number of subjects rather than gathering data from a large sample or population" (Powell, 1997, p. 49), a further concern of quantitative researchers was the lack of generalizability of the results. It is interesting to note that one of the areas in which case study methods became and have remained popular is in the area of organizational research, where the focus is on understanding a particular work environment or structure and not necessarily on predicting results in other areas (Van Maanen, 1988). For those who have wanted to make generalizations based on case studies, some researchers have attempted to develop methods for quantifying data from case studies, but most agree that it is difficult if not impossible to generalize from case studies to a wider population.

Use in LIS Research

In 1984 Fidel published her article describing "the first time that the case study method has been used in library and information research to differentiate broad patterns of behavior" (p. 273). In it she defined the case study as a specific type of field study. As such, she explained, researchers using this method would be influenced in their data collection by what they found in the field. Data collection would be accomplished using approaches determined by the subject matter; these could include direct observations, interviews, or document analysis. An iterative approach to data collection and analysis was recommended so that the results of previous analysis could direct further investigation. The desired outcome of the investigation was to be both "comprehensive understanding" and the development of "general theoretical statements about regularities" (p. 274). In her description of the method she used, Fidel addressed both the issues of reliability and validity and acknowledged that they cannot be ensured in the case study method, but she asserted that other methods exist to ensure the rigor of the approach. She also addressed the issues of access to subjects, study effect, participant bias, and observer bias.

With this article providing the heretofore missing guidance needed by LIS researchers to apply the case study method, use of this approach grew dramatically.[2] Case studies have been used in LIS research to investigate groups of library users and nonusers as diverse as children, college students and faculty, professionals (doctors, lawyers, managers, etc.), the culturally disadvantaged, and persons in hospitals and correctional institutions. The method has also been used to study libraries as institutions. "Indeed," wrote Busha and Harter, "the case [study] approach is particularly applicable in inquiries concerned with the role of libraries as social institutions—that is, their social control, performance, and impact on society in general and special groups in particular" (1980, p. 152).

A recent study by Donald Case on survey methods used in research on information seeking, needs, and behavior describes the "simplicity and groundedness" of the case study method, comparing it to "more elaborate methods" (2002, p. 178). Case focuses on the case study as an approach primarily used to delve deeply into a single subject, as in the example he provides of research by Carol Kuhlthau—a longitudinal study following a single securities analyst through his on-the-job learning process (Kuhlthau, 1999). During each of several stages in the analyst's career, Kuhlthau conducted in-depth interviews with him and used the results to draw conclusions about the role experience plays in information-seeking behavior. This type of extended contact with the subject is extremely rare in LIS case study research and provides a model of how the method can be used to explore the rich context of the phenomena under study.

Kuhlthau (1999), when describing the value of the method, reverses the more traditional concept of using a case study as an exploratory approach

to identify characteristics that may lead to further research questions. Rather, she suggests that using the case study is a way "to gain insight into some of the questions raised in prior, more quantitative, studies" (p. 411). In order to provide a thorough understanding of the phenomena under study, she advocates the use of a mixed-method approach; both qualitative and quantitative research methods can be used to compliment each other (Kuhlthau, 1993). Other approaches that can be used to develop the rich context of a study include methodological and theory triangulation (Patton, 1990), that is, the use of multiple sources of data or evidence, for example, observations, interviews, documents, and even surveys (Solomon, 1997), and multiple analytical perspectives, for example, different cultural or theoretical views (Yin, 1994).

Multiple–Case Studies Design

While much case study research focuses on a single case, often chosen because of its unique characteristics, the multiple–case studies design allows the researcher to explore the phenomena under study through the use of a replication strategy. Yin (1994) compares the use of the replication strategy to conducting a number of separate experiments on related topics. Replication is carried out in two stages——a *literal replication* stage, in which cases are selected (as far as possible) to obtain similar results, and a *theoretical replication* stage, in which cases are selected to explore and confirm or disprove the patterns identified in the initial cases. According to this model, if all or most of the cases provide similar results, there can be substantial support for the development of a preliminary theory that describes the phenomena (Eisenhardt, 1989).

In the multiple–case studies design, there are no hard-and-fast rules about how many cases are required to satisfy the requirements of the replication strategy——Yin suggests that six to ten cases, if the results turn out as predicted, are sufficient to "provide compelling support for the initial set of propositions" (1994, p. 46). Yin goes on to say that, since the multiple–case studies approach does not rely on the type of representative sampling logic used in survey research, "the typical criteria regarding sample size are irrelevant" (p. 50). Instead, sample size is determined by the number of cases required to reach saturation, that is, data collection until no significant new findings are revealed. The sample participants should be selected explicitly to encompass instances in which the phenomena under study are likely to be found. This approach to sample design is consistent with the strategy of homogeneous sampling, in which the desired outcome is the description of some particular subgroup in depth (Patton, 1990).

APPLICATION OF MULTIPLE–CASE STUDIES DESIGN

The following sections provide an example of the application of a multiple–case studies design to investigate the information-seeking

behavior of arts administrators. The study addressed the following research questions:

- How do arts administrators go about getting the information they want?
- How do they determine that they have "enough" information?
- How much effort are they willing to invest in seeking information?

Sample Selection

For the study, a sample pool of arts administrators was drawn from two of the disciplines within the arts field: symphony orchestras and art museums.[3] These two disciplines were chosen because they represent different traditions in arts administration and attract administrators with different educational and professional backgrounds. These differences provided the opportunity for both the literal and the theoretical replication process. The final sample group included seven orchestra administrators and five museum administrators. The sample comprised experienced practitioners in their fields: the average number of years in the field was twenty-eight. What little research that has been done on arts administrators as a group shows that they are notably well educated (DiMaggio, 1988). This conclusion was confirmed in this study: all but one administrator have at least one advanced degree——two have Ph.D. degrees.

Access to the sample group was gained through personal contacts. All the administrators contacted expressed an initial willingness to participate in the study, although several later withdrew because of scheduling constraints. Orchestra administrators were contacted first because of the researcher's prior work relationship with these individuals. Orchestra administrators were selected (as far as possible) to fulfill the literal replication phase of the multiple–case studies design; the museum administrators were selected to explore and confirm or disprove the patterns identified in the initial interviews (theoretical replication). Museum administrators were identified by the orchestra administrators or through the researcher's personal contacts. Ultimately, the specific participants were selected based on their availability at the time of data collection. This approach is consistent with the concept of open sampling, in which the selection of specific interviewees or observational sites within a target group can be indiscriminate since the purpose is to collect as much data as possible to guide the early phases of theory development (Strauss & Corbin, 1998).

Data Collection

For the purpose of this study, a "case" was defined as a single, in-depth interview with an arts administrator. Data were collected from the twelve arts administrators over a four-month period using a pre-tested interview protocol that included twenty-five questions focusing on specific information-seeking tasks, information sources, stopping criteria, and general

information-seeking style. Each question was mapped to one or more of the main research questions. After the interview with the first orchestra administrator was conducted, the results were transcribed and analyzed before the next group of interviews was scheduled. The next three interviews with orchestra administrators were conducted within a one-week period; one of these interviews provided results quite different from the other two. The fifth interview conducted with an orchestra administrator, however, was consistent with the aims of *literal replication,* that is, the interview substantially confirmed information collected in three of the four earlier interviews. The next group of three interviews, which were with museum directors, was used both to investigate any museum-specific behavior patterns and to confirm or disprove the patterns of behavior identified in earlier interviews (*theoretical replication*). The remaining four interviews (two in each user group) were used to explore and/or contrast the patterns identified in the earlier interviews. The final four interviews did not produce any new concepts; they did provide the opportunity to explore specific concepts in more depth and to deepen the understanding of the phenomena. After completion of the fifth interview with museum administrators, it was determined that no new information had been obtained. Data collection was therefore discontinued. A diagram of the process used in the study of arts administrators is shown in Figure 1.

During the course of the first five interviews with arts administrators, several slight revisions were made to the interview protocol to adjust or reorder questions that seemed confusing or unproductive. After completing the preliminary analysis of the first set of interviews, four new questions were added to the protocol that allowed the researcher to explore certain new concepts during the theoretical replication phase. These questions focused on the reasons why administrators make the decision to look for information in the first place and how they choose specific individuals as sources of information. Although these issues had been addressed to some degree in the initial protocol, it became obvious during the literal replication phase that these sections of protocol needed to be expanded.

The ability to adjust the data collection as a result of insights obtained during the early phases of the research process highlights one of the key advantages of the multiple–case studies design. The research questions used to guide this research concentrated on the "how" of the arts administrators' information-seeking behavior; after the initial set of interviews were completed and used to define the norm, data collection during the theoretical replication phase could focus on the "why" of their individual behaviors. This allowed the researcher to explore the reasons for these perceived differences and to build explanations for them based on responses to an expanded set of questions.

The multiple–case studies design provides a rigorous approach for collecting and analyzing data. As shown earlier in Figure 1, the replication

Figure 1. The Multiple-Case Studies Design.
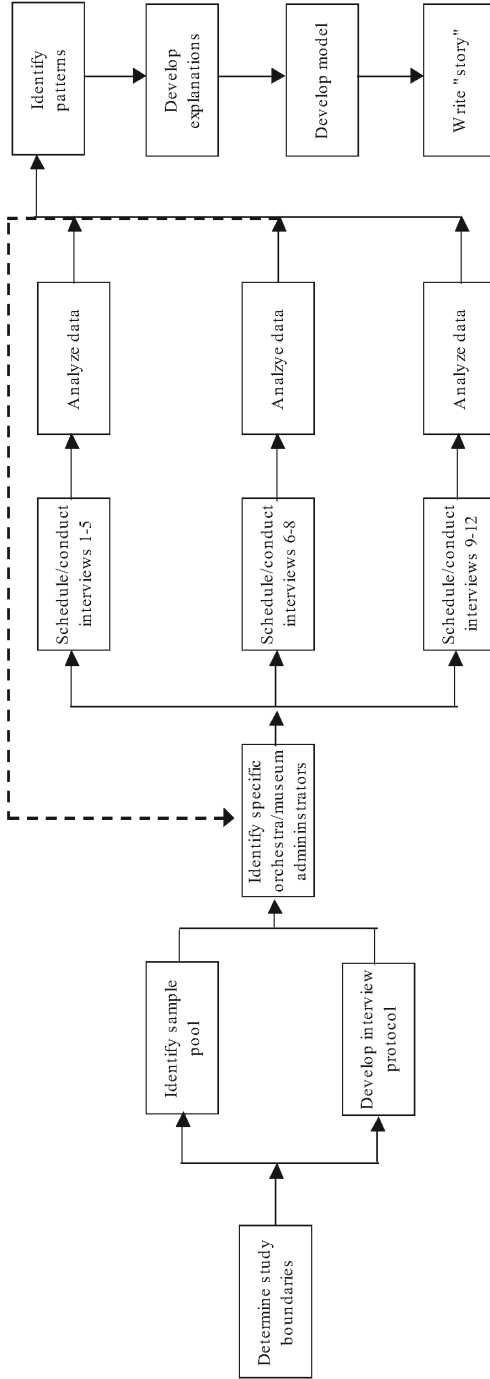
Adapted from Yin, R. K. (1994) *Case Study Research.*

strategy allows the researcher to identify possible patterns in the data and explore them by returning to the field for more data. Conscientious application of these techniques ensures that explanations for the phenomena under study developed from the data are verified during the course of the research process. This iterative process of data collection, analysis, comparison, and revision during the entire study is referred to as the "constant-comparative" method (Strauss & Corbin, 1998).

Data Analysis

The main approach to data analysis involved a detailed analysis of the interview transcripts. As the first step in this sequential process, notes from each interview, made both during the interview and immediately after it, were reviewed; highlights or new concepts were identified. Next, the transcript from each interview was reviewed and coded.[4] As the process continued, each new interview was compared to the previous ones for confirming or disconfirming evidence; earlier interviews were reanalyzed in the light of new concepts identified in later interviews. Because the multiple–case studies design encourages the researcher to analyze the data from earlier interviews before scheduling and conducting the later ones, the analytic process itself influences the emphasis placed on certain questions during the later part of the process.

Preliminary patterns describing the factors that influence information-seeking behavior were developed based on concepts identified during the literature review. These patterns were augmented by concepts that came out of the first group of interviews. The first one or two interviews from each of the two user groups were an especially rich source of new concepts. For example, during one of the early interviews, an administrator expressed a completely unexpected opinion. In response to this administrator's strongly held position, the researcher included a new question in the interview protocol on the use of the organizational mission in the information-seeking process. During the theoretical replication phase, the researcher found confirming evidence for the phenomenon of mission alignment as a factor influencing the decision to seek information, although only two other administrators exhibited the same extreme position.

As the interview process continued, predictable patterns began to emerge, allowing the researcher to form an early interpretation of the nature of the information-seeking process used by senior arts administrators. To the extent that the patterns found in the data from each additional interview matched the early interpretation of the process that had been developed, the internal validity of that interpretation was strengthened.

During the pattern-matching process, the data collected were organized to support plausible explanations about the nature of information-seeking and stopping behavior among senior arts administrators. Based on these explanatory patterns, the initial model describing the information-seeking

process was developed. During the explanation-building process, some individual situations were identified that did not appear to fit the model being developed. For these cases, it was necessary to review the data and discover what intervening conditions, if any, might exist that could explain specific differences in behavior.

Throughout the analytic process, multiple perspectives were used to interpret the data and to provide theory triangulation. Specifically, the data were reviewed from traditional management and arts management perspectives as well as from the perspective of an LIS researcher. The use of these perspectives helped to explain otherwise anomalous behavior on the part of individual arts administrators and to reduce the risk that any single interpretation of the data would shape the results. Data triangulation was obtained by the fact that the informants themselves came from two separate user groups and represented different types of organizations. As an ongoing check in the process, each interview was reviewed specifically to look for evidence that ran contrary to the norm; no disconfirming evidence was found that could not be explained by specific intervening conditions. Finally, member checks with each of the study participants were used to confirm the conclusions of the study and to guard against the possibility of researcher bias and reactivity.

Findings

Data supporting the findings of a case study may be presented in a number of ways, including making a matrix of categories and placing evidence within such categories, creating arrays—flowcharts and other devices—for examining the data, or tabulating the frequency of different events. However, one of the most powerful tools that the writer of a case study report can use is the evidence of the participants' own words to "tell the story." This brings the reader into the participants' world and provides a rich context for understanding the phenomena under study.

During the interviews with the arts administrators and subsequent analysis of the data, three major themes emerged that had not been identified in the original research questions. Of these, one in particular—the motivation for seeking information—was the result of evidence uncovered during the literal replication phase that did not fit into the expected framework. This concept was then explored in depth during the theoretical replication phase, and the results are described below.[5]

The Decision to Seek Information   Based on the early interviews, it became apparent that arts administrators do not assume a priori that their tasks or decisions will require a formal information-seeking process. While admitting that some situations may involve formal information seeking, those situations appeared to be the exceptions rather than the rule. Administrators rely heavily on their personal experience, previous knowledge, and

randomly acquired information in order to perform their jobs. Some of them question whether a formal process of information seeking provides them with valuable or even useful results. During the theoretical replication phase, therefore, the researcher focused on an issue not addressed in the initial foreshadowing questions: What motivates an administrator to engage "purposefully" in the search for information? (Marchionini, 1995).

None of the administrators had formal guidelines for when he would look for information or when he would not. One administrator said: "I intuitively know when I can make a decision just on gut, because I know enough information already, and when to seek out additional information. But it's really, really hard to write a manual of how to do that. I think that is something that may separate successful executives from unsuccessful [ones]."

Based on data collected and analyzed during the literal replication phase, a number of specific situations were identified for which administrators generally agreed that they might use a formal process to look for information. These included budgeting and other financially driven activities, long-range planning, and audience or market research projects. There was also general agreement that administrators would be more likely to use a formal process for questions or situations that were either new to the organization or outside their personal areas of expertise: "I guess the other situation is where you're trying to make a decision, and it's not only a new experience for us, but you either can't find anybody else with credibility from whom to get information, or maybe it really is a new issue." Another administrator added the caveat that looking for information does not necessarily mean that one will use it: "We go through the motions of gathering information about things that we're closed-minded about, and where we think we already know what's best. We'll still get it, but we'll either do one of two things. We'll ignore it, or we'll say, well you have to consider the source and factor that out or filter it."

Mission-Driven Information Seeking   Alignment to mission emerged during the literal replication phase as a factor influencing the decision to seek information for one administrator. This administrator maintained that his need for information was both defined and limited by asking the question, "How does this task/decision relate to my organization's mission?" If it did, then he needed relatively little information on which to make his decision; if it did not, then he did not even consider the decision, regardless of other circumstances surrounding it.

> The experience here is that the overall criteria for institutional success is so firmly built into my mindset, and everyone's mindset, that it actually . . . helps force the right decision, the right questions get asked. . . . By framing the objective of the project as we have, . . . it immediately provides a framework for thousands of mini-decisions . . . and

> understand it framed the criteria in advance. . . . I'm never conscious about what do I need to know, what information do I need? I'm very comfortable, I'm extremely comfortable with my instinct, and I hardly ever get bogged down in information.

One of the two other administrators who supported this position illustrated his point about the use of the mission to influence the need for information by explaining that all he had to do to convince his board to approve the loan of artwork to a nontraditional exhibit was to assure them that this exhibit would be completely consistent with the organization's mission.

Five administrators agreed that, although they referred to the organization's mission statement as a guideline in decision making, it was not an absolute determinant of behavior nor a factor strongly influencing information seeking. One other administrator, who described himself as completely mission-driven, summed up the value of using a mission statement to focus information seeking: "I can just provide a kind of . . . rule of thumb, and I think it's true. If you're mission-driven, you're going to come out better in the end—at the end of the day. So if a symptom of being non-mission-driven, or less-mission-driven, is looking for more information, then if you're to flip it around and say the people who are looking for lots of information probably don't have their ducks lined up."

Information Seeking as Consensus Building   The second new theme to emerge as a factor influencing an administrator's decision to seek information was the use of information seeking as a means for consensus building. Several administrators made comments such as, "I knew where I wanted to go with this, but. . . ." and then went on to describe how they had set up an elaborate information-seeking process primarily or even solely to involve various constituent groups and to develop a sense of buy-in:

> Sometimes you know the answer before you start. You're just building the case for it. . . . And as I'm thinking further about this, because we want consensus, so we think of what information we want, we get some information back, we might redefine the information, and then what happens is if we as a small group decide that we believe we have the answer, then we need to look at the information again, because we want to build consensus and then how do we present the information so that it's clear and understandable and honest, and you get a presentation you can make to someone else to help build consensus.

Seven of the twelve administrators gave some example of information seeking being used as a tool for bringing people together around an issue or for moving a decision in a desired direction. However, none of the three administrators who considered themselves "mission-driven" mentioned this use of information seeking; rather, they described a much more focused approach to decision making, often centering on a small group of senior staff who depended very little on outside input.

Although the interview protocol did not specifically address the administrators' roles in providing information to others, four administrators interviewed during the theoretical replication phase volunteered information about how they see themselves in those roles when asked about their decision to seek information. Not surprisingly, the administrators who believed most strongly in consensus building also believed in disseminating or sharing information with others in their organizations, even if they questioned how this effort was received. "And consensus for me is critical. I am not an autocratic leader. . . . For me, communication, information sharing, is critical for being able to move the organization forward. . . . I think the other part is that I believe that this [information seeking] is multidirectional. I seek a lot of information. I share a lot of information."

Although the concept of information seeking as a means for consensus building was mentioned early in the interview process, the possible relationship between level of information seeking and specific organizational cultures, that is, mission-driven and consensus-based, was not identified until late in the analysis phase. This relationship between organizational culture and executive behavior has been explored by many researchers (Mintzberg, 1973; Dees, 1998; Martin, 2002), but the relationship between specific nonprofit cultures and information seeking is an area for future research. From the indications provided by this study, it would appear that these two types of organizational cultures exert opposite influences on information-seeking behavior.

Considerations and Concerns

In her 1984 article Fidel identified several potential problems associated with the case study method. These include access to participants, study effect, participant bias, and observer bias. These issues remain as challenging now as they were twenty years ago, and the practical steps used to address them in the study of arts administrators are described below.

Access to Subjects

As Fidel and others have repeatedly suggested, one of the challenges of any case study research is "getting in" (1984, p. 285). Various authors have offered suggestions about access to participants, but in the end, studies of many different populations and environments have shown that the most effective approach is through personal contacts. Because of the researcher's previous familiarity with the orchestra field, administrators from this discipline were selected first and used to populate the *literal replication* phase of the design. Since the researcher knew all the orchestra administrators in this sample personally, this contact was relatively straightforward.

Since the researcher did not have the same level of access to museum administrators as to orchestra administrators, an entry strategy had to be developed and appropriate contacts needed to be identified and asked to

help identify interview candidates. Two sources of referrals were used to gain access to museum administrators: (1) the orchestra administrators already being interviewed for the study, and (2) personal contacts known to the researcher who serve as museum board members. The preferred approach was to ask each orchestra administrator being interviewed to recommend a colleague in a museum who might be willing to participate in the study. If a museum administrator contacted through an orchestra administrator could not participate, then the second, and usually more attenuated referral source, was used to recruit participants.

In all cases, the personal credibility of the researcher and/or the person making the referral was essential to secure access. Although it is certainly possible to obtain access to many user groups without previous personal knowledge, it is often challenging. In the absence of familiarity, the affiliation with an institution, such as a university, often provides the necessary credibility for the researcher. Also, without previous personal knowledge, it may take longer for participants to "open up" to the researcher and share candid opinions in response to questions.

Study Effect

As discussed above, one of the criticisms of the case study method has long been that the very act of studying a phenomenon may alter it. In the study of arts administrators, two of the participants specifically mentioned that the very nature of the questions caused them to think differently about their information-seeking behavior than they had before. Because arts administrators do not consider information seeking to be an important part of their decision-making process, they do not think about it as a conscious activity. When asked to do so, they begin to construct reasons for their behavior that may not be accurate.

Because the researcher was not in a position to observe actual information-seeking behavior over time, it was necessary to take the arts administrators' descriptions of their processes at face value. Ideally, the researcher would seek an external evaluation of the accuracy of the descriptions. However, direct observation of the information-seeking process, although desirable, was not realistic, since the process may take place over an indefinite period and is often co-mingled with other tasks; it is also too intrusive an approach when studying the behavior of individual administrators. Because of the nature of the group being studied, the use of secondary sources, diaries, and/or activity sampling was also not appropriate, nor could a questionnaire be designed that would provide reliable results.

Since it is impossible to eliminate completely the risk of the study effect on the participants, extra care must be taken during the data collection and analysis process to ensure that any unusual behavior is identified and evaluated to determine whether it is caused by an outside influence. In the absence of multiple sources of evidence about the behavior of individual ad-

ministrators, the researcher relied on a limited amount of data and theory triangulation to reduce the risk of misinterpreting the evidence or placing undue importance on anomalous data.

Participant Bias

Participant bias presented a very small problem in the study of arts administrators. In general, the arts administrators interviewed for the study were easy to talk to and enjoyed describing their own views and experiences. Two administrators directly questioned the premise of the study but admitted to finding the questions interesting and thought-provoking. At the other end of the spectrum, some administrators said things like, "This is fun" and "This is just what I need." Since the study was interested in the opinions and perceptions of the administrators, the fact that they were predisposed to dismiss information seeking as an important activity only provided additional material for analysis.

Observer Bias

The obvious downside of personal knowledge of a particular participant group is the potential for bias when dealing with it. On the other hand, this knowledge can also provide theoretical sensitivity. Strauss and Corbin define sensitivity as "having insight into, and being able to give meaning to, the events and happenings in data" (1998, p. 46). Sensitivity is a quality that helps a researcher to recognize what may be significant in the data and/or to identify inconsistencies between an individual's behavior and standard practice. Theoretical sensitivity, according to these authors, may be derived from the relevant literature, professional and/or personal experience, and the analytical process itself. In this case, the initial theoretical sensitivity was brought to the situation through both the relevant literature and the researcher's own professional experience and personal interests. Having worked as a member of the senior management team in two arts organizations, this researcher has operational knowledge concerning how and where senior administrators are likely to look for the information they want. In addition, the researcher has been involved in advising arts administrators on how to identify and satisfy their information needs. However, no explanation arising from previous experience was included unless it was verified by actual data collected from the field.

Conclusions

The case study method, and in particular the multi–case studies design, provides LIS researchers with a proven tool for achieving a deep understanding of a specific phenomenon—for example, the information-seeking behavior of a particular user group. The strength of the multiple–case studies design lies not only in its ability to demonstrate consistent patterns of behavior but also, and perhaps more importantly, in its ability to uncover new and/or divergent themes. These emerging themes can be explored

through the replication process. This process allows the researcher to probe beneath the surface of the situation and to focus on the "why" of individual behaviors.

Although case studies do present problems to the researcher in terms of access, study effect, and potential sources of bias, these issues can all be addressed by the application of rigorous data collection and analysis techniques. As has been demonstrated by numerous studies over the past twenty years, the case study method can be used not only for exploratory research but also for theory development. The case study method and the rich context that it offers often provide the reader of the research with a much more vivid experience than do other, more analytical methods.

NOTES

1. This phenomenon is referred to as the Hawthorne Effect, named after a study of factory workers at Western Electric's Hawthorne Plant in Illinois from 1927 to 1933. The study showed that productivity increased as a result of the very act of studying it, regardless of any changes made in working conditions.
2. The use of case studies in library/information science dissertations almost tripled (up 284 percent) between 1975–79 and 1990–94 (Blake, 2003).
3. For a complete description of the sample selection and other methods used in this study, see Zach (2002).
4. Data were coded using version 1.3.146 of NUD*IST (NVivo) developed by Qualitative Solutions and Research. At the end of the process, 1,753 passages had been coded using 389 terms.
5. For a more complete discussion of information seeking by this user group, see Zach (2005).

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