

Chapter 5

Development and Results of the Category Scheme

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The author used the preliminary outline of categories developed in the pilot study (see chapter 4) as a basis for the first analysis of the interview data collected in the main study. The final outline of categories (see appendix G) is a highly detailed, organized list of topics found in the user and librarian interviews. It was constructed through the author's careful reading of the transcripts, identifying and categorizing the topics discussed by librarians and users.¹ The goal was to develop a description of the librarian–user interaction that would be useful in addressing the research questions. According to Grant McCracken:

The object of analysis is to determine the categories, relationships, and assumptions that informs [sic] the respondent's view of the world in general and the topic in particular.²

For analysis of interview data, the study adapted a framework suggested by McCracken. As the investigator listened to the tapes and read the transcripts, she noted topics, discussed by the interviewees, that suggested potential categories. The author identified words and phrases that related to relational/interpersonal factors as well as those indicating content/technical factors. For example, when a user spoke about a librarian who was “friendly,” this was categorized as relational; when a librarian spoke of users who “knew exactly what they were looking for,” this was classified as relating to content.

At the second stage, the author reviewed the words and phrases tentatively classified as relational or content. She then compared them to one another, looking for relationships or patterns of similarities. When two or more users or librarians made similar comments, these were grouped together. As these groups of similar comments were identified, the author organized them into the outline of categories. For example, every time a user mentioned a librarian having a positive attitude (such as being helpful, patient, caring, cooperative), these comments would be grouped together under the category "positive attitude toward user." In this way, the large amount of transcript data was reduced to a well-organized and coherent outline summarizing the interviews. In the last stage, the researcher further examined the categories to find their interrelationships. As McCracken explains:

Some of these themes will be redundant, and the best formulation should be chosen while the others are eliminated. The remainder can then be organized hierarchically. One or two themes will be the chief points under which the remainder of the themes can be subsumed.³

Through analysis and data reduction the author was able to identify generalized relations between categories (hypotheses) which will enable future observation to focus more precisely.⁴

As noted in chapter 3, in analyzing the interview data from the pilot study, the investigator identified three themes (major categories): goals, facilitators, and barriers. These themes provided a starting point for analysis and description of findings. As the author identified topics described by the interviewees related to each theme, she added them to the outline of categories.⁵

In naming the categories, the participants' own words were used whenever possible. When participants' words did not provide a succinct label, the researcher used her own words. Usually this was necessary to name broader categories that grouped similar ideas. For example, if a user said that a librarian was "responsive" or "a good listener," this word and this phrase were placed into an author-created category: "good communication skills." The transcripts were color-coded using an adaptation of the MAT (multichromatic analysis technique).⁶ This technique involves use of colored

markers and colored paper clips as aids to analysis. The MAT allowed the researcher to organize efficiently and access a large amount of qualitative data. In addition, whenever a transcript repeated a theme or category that had previously emerged, that repetition was noted in the outline. If a transcript described a new category, it would be added to the outline. Categories were marked with the number of librarians (L) and/or users (U) who mentioned each factor. Subcategories were listed in the order of most frequently mentioned first so that the most critical factors could be easily identified.

In this manner, the author analyzed and coded the nine pre- and twenty-seven postinteraction interviews with the librarians. In addition, portions of the pre- and postinteraction interviews were analyzed using the critical incident technique and the analysis of paired perceptions, described below.

Category Scheme Results

As in the pilot study, three major themes emerged in the final outline of categories:

- goals or aims of the interaction;
- facilitators: qualities that enhance goals, communication;
- barriers: characteristics that impede goals, communication.

Both library users and librarians perceived the reference encounter to be a highly complex process. This can be seen in the intricate and fine-grained nature of the subcategories under each of the main categories. As can be seen in appendix G, the outline of categories was very lengthy. Key portions of the outline relating to each of the major themes are summarized and discussed below.

Theme 1. Goals or Aims of the Interaction⁷

Librarian Goals

Evidence provided by the informants in the pilot study led the author to conceptualize librarian–user interaction as instances of goal-directed communication. *Goals* were defined as the participants' stated aims or outcomes for the interaction. The interviewer asked both users and librarians to discuss their goals for the reference interaction. All eleven librarians interviewed (nine librarians from the main study plus two from the pilot study) expressed more than one goal, which were grouped into seven different categories:

- problem definition;
- developing strategies for solving the problem;

Table 2
Representative Librarian Responses Related to
Goals or Aims of the Interaction Theme⁸

Problem Definition

“To find out what the patron needs to know.” (L01)

“To determine what the exact information is that they’re looking for and to get a complete understanding of what their actual question is.” (L03)

Developing Strategies for Solving the Problem

“To assist the patron in securing that information.” (L02)

“To steer them in that direction and explain how it is that they would find it.” (L05)

Enablement

“To get them to be an independent searcher to have an idea of how they can do this for themselves next time or at least a little more independently.” (L07)

“To try to teach them as you go along with the question so that they become more independent library users.” (L03)

“To try to explain a little bit about how libraries are organized and how information is organized in the library and how that...they can find what they want in the library.” (L05)

Developing Positive Attitude toward Library Program

“I was also hoping that he would be pleased that we were trying something new rather than sticking to the other [bibliographic instruction program].” (L01)

Gaining User’s Confidence

“Gaining the confidence that yes, indeed, he could broaden his research after having identified some of the information.” (L02)

Table 2 cont.Composite of Above Goals

“Try and interpret what it is, the kind of information they need to know, and lead them in a direction where they can find what it is that they need.”
(Pilot Librarian A)

Goal Dependent upon Context

“Well, I think it depends on where you’re working and who they [the users] are.” (L03)

- enablement (helping users to be independent);
- developing the user’s positive attitude toward library program;
- gaining user’s confidence;
- composite of above goals;
- goal dependent upon context of question.

Table 2 provides examples of librarians’ goal statements.

User Goals

In contrast to the librarians, users had two basic goal categories:

- developing strategies for solving the problem;
- enablement.

In addition, one user believed, along with two of the librarians, that the goal was dependent on context. Table 3 gives examples of users’ goal statements.

There was greater diversity of goals for the librarians than the users, although there was much similarity in the goals that were expressed by both. Table 4 summarizes and compares the goals of librarians and users.

As can be seen in table 4, the large majority of the goals for both users and librarians were centered on content dimensions. For librarians, problem definition, developing strategies for solving the problem, and enablement were the three highest-ranked categories, with a majority of the librarians aiming for each. Two librarian goals, developing positive attitude toward library program and gaining user’s confidence, were relational in nature. These two relational goals were mentioned by one librarian each, so nine out of eleven librarians focused exclusively on the content dimension in their goals.

All of the users expressed their goals in terms of content dimensions. The vast majority of users, twenty-six (86%), mentioned developing strate-

Table 3
Representative User Responses Related to
Goals or Aims of the Interaction Theme

Developing Strategies for Solving the Problem

“Just direction. There’s a lot of times that I’m researching things and no idea where to find them in the library.” (U07)

“To help me find my information if not to know where I can find it; if it’s not here, find it at another library.” (U09)

“Try to pinpoint something, look for sources that I wasn’t quite sure about.” (U10)

“To get a push kinda to save time.” (U27)

“To find information that maybe I’ve been looking for on my own.” (Pilot User A)

“To do the best job I can as far as like locating the material that will help me do my job.” (Pilot User B)

Enablement

“To going about different sources so maybe next time I could even do it myself a little bit.” (U16)

gies for solving the problem as their goal. The librarians’ highest-ranked category, problem definition, was not found among the users’ goal statements.

Theme 2. Facilitators: Qualities That Enhance Goals, Communication⁹

The second major theme was facilitators: qualities that enhance goals, communication. *Facilitators* are defined as qualities or characteristics that have a positive impact on the perceptions of the participants in the interaction.

Although some facilitators affect content, most are relational factors. Interviewees described relational facilitators with greater frequency and in more detail than they did content facilitators. Thus, the interpersonal dimension was a greater concern for both users and librarians despite their both having goals that focused primarily on content issues.

Goal	Librarians (N=11)****	Users(N=32)****
Problem definition	9 (82%)* (C)	0
Developing strategies	7 (64%) (C)	26 (86%) (C)
Enablement	6 (55%) (C)	3 (10%) (C)
Attitude	1 (9%) (R)	0
Confidence	1 (9%) (R)	0
Composite	3 (27%)**	0
Context	2 (18%)**	1 (3%) (C)
Total	29***	30*****

C=Content R=Relational

* All percentages are rounded to the nearest whole.

** Unable to determine if content or relational because librarians did not specify.

*** Total exceeds N because librarians gave multiple goals.

**** Includes main study and pilot study participants.

***** Total is less than N because two users did not specify goals.

Librarians' Content-Related Facilitators

Librarians said that their knowledge base and that of users facilitates the transfer of content in reference interactions. Librarians described the user's knowledge base in terms of:

- general knowledge;
- specialized knowledge, such as understanding of the research process, libraries, and their information need.

Librarians also discussed their own knowledge base in terms of:

- general knowledge;
- specialized knowledge, such as awareness of specialized reference sources and the library's collection.

Table 5 provides representative librarians' comments on the importance of the users' and librarians' knowledge base as facilitators.

Users' Content-Related Facilitators

There were similarities between the librarian and user content-related facilitators, but there were also dimensions that only users noted. Both dis-

Table 5
Representative Librarian Responses Related to
Facilitators–Content Factors

User's Knowledge Base

"I always enjoy working with someone who has broad knowledge." (L04)

"They have some overall sense [of] how the library works." (L09)

"Knowing exactly, or a[s] close as possible, know exactly what they are looking for." (L02)

Librarian's Knowledge Base

"I think standard knowledge of the sources and all the basic subject areas." (L03)

"You have to know your library." (L01)

"They have to know the structure of information one assumes that they do and know certain sources our library uses consistently." (L05)

cussed knowledge base as an important category, but users' perceptions of the librarians' knowledge base were much less detailed than those of the librarians. Users did not discuss general knowledge, but half of them mentioned the importance of the librarians' specialized knowledge, especially knowledge of information sources. Another subcategory, information, emerged from the user's point of view, dealing with the librarians' ability to:

- provide information delivery;
- provide information access;
- fill an information need;
- be product oriented.

Table 6 provides a sample of users' comments regarding the information and knowledge base facilitators.

Table 7 provides a summary and comparison of the content-related facilitators for librarians and users. As shown, librarians' two highest-ranked categories were related to the knowledge base of users and librarians. More users, however, were focused on the information category, which dealt with

Table 6 Representative User Responses Related to Facilitators–Content Factors	
<u>Information Related</u>	
“You know they’ve always ended up finding something for me, or telling me where I could get it, or calling another library.” (U24)	
“He went right to the books and showed me exactly where they were.” (U23)	
“Giving me the book, opening it up, and telling me this is what you want, this is what you need, and to tell me exactly what kind of subject to look under and not something vague, something really specific.” (U04)	
<u>Knowledge Base</u>	
“She knew right where to go . . . which computer to access the information.” (U08)	
“She’s very resourceful.” (U18)	
“Even if it wasn’t necessarily his field, he knew how to help.” (U22)	

Table 7 Content-Related Facilitators for Librarians and Users		
Category	Librarians (N=11)*	Users (N=32)*
Knowledge Base		
of users	7L (64%)	0
of librarians	11L (100%)	11U (34%)
Information		
of librarians	<u>1L (9%)</u>	<u>18U (56%)</u>
Total	19L**	29U***
* Includes main study and pilot study participants. ** Total exceeds N because librarians gave multiple facilitators. *** Total is less than N because three users did not specify content-related facilitators.		

information delivery and access. However, the librarians knowledge base was also an important factor.

Librarians' Relational Facilitators

In the category of facilitators–relational, both librarians and users have a more detailed, richer scheme than that developed in the facilitators–content area.

For librarians and users, there were three major subcategories under the facilitators–relational category:

- attitude;
- relationship quality;
- approachability.

The attitude category was defined as the perceptions of the demeanor of the other participant in the interaction. It is important to note that perceptions of attitude were inferred by the informants from the verbal and nonverbal communication of the person with whom they interacted. In other words, participants inferred internal attitudes from external cues. Under attitude, further subcategories were:

- positive attitude toward user, such as librarians being helpful, patient, and reassuring;
- positive attitude toward task, such as users being serious, motivated, and persistent, and librarians being excited, interested, and professional.

The relationship quality category was defined as perceptions of the interpersonal dynamics of the interaction. The *approachability* category dealt with perceptions of positive nonverbal behavior such as eye contact and smiling. Table 8 provides examples of librarians discussing relational factors as facilitators.

Users' Relational Facilitators

Users also had a more detailed, richer range of categories for facilitators–relational than for facilitators–content. Attitude emerged as an important category for users. Table 9 provides examples of user responses centering on these relational factors.

Table 10 compares the responses of librarians and users on relational facilitators and emphasizes the importance of attitude in the interaction. Ten librarians (91%) and twenty-four users (75%) discussed attitude as im-

Table 8
Representative Librarian Responses Related to
Facilitators–Relational Factors

User's Attitude

“Afterwards, she came up to me and said ‘this was great.’ She really, she showed enthusiasm. Her face looked as if it was Christmas, and you know that’s the kind of reward that we get.” (Pilot Librarian B)

“I find that if they’re motivated, then I’m motivated.” (L09)

“Being persistent and I guess being patient, too, because it may be new to them and they may not understand initially what’s going on.” (L05)

“Having a certain confidence in the fact that the user is at the library and attempting to accomplish something... the determination to accomplish, to set ones’ goals.” (L02)

Relationship Quality

“She was willing to explain those things [when] I asked her questions.” (L08)

“The willingness to trust the librarian whether it be a confidential matter or just something that they weren’t really comfortable talking about.” (L03)

“I like it when they accept my authority.” (L06)

“I guess I do like users that aren’t afraid to dig in . . . people that are clearly interested and excited by the fact that they’ve managed to find something or by the quest, tends to turn me on a little more, too, and I get more excited about it.” (L07)

portant. Relationship quality also drew comments from ten librarians (91%) and sixteen users (50%). Both users and librarians mentioned many of the relational qualities. Librarians placed greater emphasis on the *user's* attitude and relationship qualities. This finding is contrasted

Table 9
Representative User Responses Related to
Facilitators–Relational Factors

Librarian's Attitude

"She was really helpful and she came over . . . she made an extra effort to come over and she was funny, I mean she had a really nice personality." (U17)

"He was just very helpful. You know, it wasn't like I wasn't like a bother to him . . . that's their job, and sometimes you go to them and it's a bother, you know, hey, that's what you're here for." (U13)

"She was a very nice lady; she treated me like she wanted to be treated herself, you know, with respect." (U19)

"To be pleasant, to be attentive to my needs, to be *with* me while I'm asking for what I want. Polite, kindness, courtesies, I'm another human being on the other side of this interaction and I expect to be respected as such, but know that the person on the other side has information that I need so we have to connect together." (Pilot User B)

Relationship Quality

"She stayed a few extra minutes to help me get the forms so I could go and get the books and I was in a time crunch . . . and she didn't give me a hard time about it, she was interested more in helping me than in getting home." (U21)

"Getting involved showing that, not that you're wholly enthused, you know, but at least that you care, you're not just there." (U27)

"She did more than I asked her to, she took me where I had to go and didn't just show me, and she made sure I understood what I was doing." (U04)

"Having a librarian who was willing to take the time, sit down, and go over with me until I was really sure about what I was doing." (Pilot User A)

Approachability

"I was impressed that she got up and went around the desk and took me back to the reference section instead of just telling me." (U21)

Category	Librarians (N=11)*	Users (N=32)*
Attitude		
of user	10L (91%)	0
of librarian	9L (82%)	24U (75%)
Relationship quality		
of user	10L (91%)	0
of librarian	9L (82%)	16U (50%)
Approachability		
of user	0	0
of librarian	<u>3L (27%)</u>	<u>2U (7%)</u>
Total	41L**	42U**

* Includes main study and pilot study participants.
** Total exceeds N because users and librarians discussed multiple relational factors.

with users who tended to emphasize perceptions of the *librarian's* attitude, relationship quality, and approachability.

Information Retrieval Technologies as Facilitators

An additional category was the effects of information technologies on the reference interaction. In the pilot interviews, both librarians mentioned this factor. Because the literature review also indicated that computerized information retrieval technologies would be increasingly used in reference interactions, the librarians in the main study were asked to comment on their impact. Librarians perceived information retrieval systems as both facilitators and barriers to the reference process. Because the researcher asked the librarians directly about technology, they discussed it more than the users, who were not asked directly.

The information technologies as facilitators category had content components, mostly focused on the ease of retrieval and the depth of information retrieved. There were also relational aspects, centered on the impact technology has on interpersonal interaction. The librarians disagreed on the nature of this impact. Perceptions varied from one librarian who felt

Table 11 Representative Responses Related to Librarian and User Perceptions of Information Technologies as Facilitators to Goal Achievement
<p><u>Content Factors—Librarians</u></p> <p>“Oh, definitely, they’ve [information technologies] had an impact. I think it opens up a lot . . . sometimes it makes it a lot easier to find what you’re looking for.” (L03)</p> <p>“They’ve certainly enhanced my ability to provide information more efficiently, and just the breadth and the depth of the information has increased.” (L04)</p> <p>“CD-ROMs help enormously in that they really do, they just made the process a lot easier . . . they have more complete information.” (L05)</p>
<p><u>Content Factors—Users</u></p> <p>“Obviously, the computer as a tool is just a big time-saver.” (U08)</p> <p>“The computer . . . it just had lots of great sources . . . for us to look at, you know, just many, many of them.” (U03)</p>
<p><u>Relational Factors—Librarians</u></p> <p>“It’s a lot more labor-intensive.” (L05)</p> <p>“It has changed the entire interaction . . . the interaction is more intensive . . . perhaps doubled.” (L02)</p> <p>“Because of . . . this access to more information, the patron who is genuinely interested gets really excited and starts digging in much more than he or she might have if it was paper sources.” (L04)</p>
<p><u>Relational Factors—Users</u></p> <p>“The computer is fun.” (U3)</p>

that they had no effect on the basic interaction to another who felt they have totally changed the interaction. Table 11 gives examples of statements dealing with information technologies as facilitators in the inter-

Category	Librarians (N=11)*	Users (N=32)*
Content factors		Content factors
Impact on search process	9L (82%)	Librarian knowledgeable about systems 2U (6%)
Impact on information retrieval	3L (27%)	Librarian demonstrates how to work computer 2U (6%) Computer big time-saver 1U (3%)
Relational factors		Relational factors
Impact on relationship	9L (82%)	Computer is fun 1U (3%)
Total	21L**	6U***
<p>* Includes main and pilot study participants. ** Total exceeds N because librarians gave multiple facilitators. Librarians were asked directly about impact of technology, but users were not. *** Total is less than N because not all users specified information technology as facilitator.</p>		

action. Table 12 provides a summary for comparison of the categories of librarians and users.

Theme 3. Barriers: Characteristics That Impede Goals, Communication¹⁰

The third major theme—barriers: characteristics that impede goals, communication—brings together factors that participants reported to have fostered negative perceptions of reference encounters. *Barriers* are qualities or characteristics that had a negative impact on the perceptions of the participants.

Librarians' Content-Related Barriers

The librarians' barriers related to content dimensions were much more diversified than the users'. Librarians focused more than users on the lack of a knowledge base as the cause of unsuccessful reference interactions. Librarians identified the following as content-related barriers regarding users' knowledge base:

Table 13
Representative Librarian and User Responses Related to
Barriers—Content Factors

Librarians about Users

“The other problem you have here a lot is with international students for whom the whole process of communication is sometimes a frustrating one . . . the language barrier there is very difficult sometimes.” (L08)

“They don’t understand indexes at all.” (L09)

“They don’t know what they want, so no matter how much of a reference interview I did, I could never find it out.” (L03)

“The poor library . . . user is one that has not done the proper preparatory work, has not . . . read the assignment prior to the reference interview and then proceeding to thrust the assignment in front of the librarian’s eyes and expecting immediate digestion and comprehension of what the ultimate aim is.” (L02)

Users about Librarians

“I guess she didn’t have any knowledge in the area . . . if the librarian doesn’t know about it, then she can’t really help you with it.” (U04)

“She wasn’t apparently as comfortable with the computer, and she didn’t know exactly how to do it for me.” (U08)

Table 14
Content-Related Barriers for Librarians and Users

Category	Librarians (N=11)*	Users (N=32)*
Knowledge base		
of users	7L (64%)	1U (3%)
of librarians	5L (45%)	2U (7%)
Information		
of librarians	<u>0</u>	<u>1U</u> (3%)
Total	12L**	4U***

* Includes main and pilot study participants.

** Total exceeds N because librarians gave multiple barriers.

*** Total is less than N because not all users specified content-related barriers.

- User lacks general knowledge (e.g., of English language in the case of international students).
- User lacks specialized knowledge of basic library structure, the research process, and the assignments.
- User lacks ability to articulate need.

In addition, librarians identified the following as content-related barriers regarding librarians' knowledge base:

- Librarian lacks specialized knowledge, including subject knowledge and knowledge of the collection.
- Librarian lacks experience.
- Librarian is unprepared.
- Librarian is not up to date.
- Librarian lacks knowledge of information retrieval tools, electronic sources, and specialized sources (e.g., business and legal tools).

Table 13 provides a sample of statements related to this category.

Users' Content-Related Barriers

Users reported very few perceptions of barriers formed by content factors. Their negative perceptions were centered more on relational factors, which are discussed below. As in the facilitators theme, the librarians and users both had perceptions dealing with knowledge base. In addition, one user reported a barrier related to lack of information delivery. Table 13 provides a sample of statements related to this category.

Table 14 provides a summary for comparison of content-related barriers identified by librarians and users.

Librarians' Relational Barriers

Relational qualities were critical to perceptions of barriers to success. Relational aspects as barriers were discussed with even greater frequency and detail than facilitators. Librarians spoke of more numerous and diverse categories of negative user attitude toward librarian than of negative user attitude toward task. This result is the opposite of the findings for facilitators and suggests that for librarians, positive attitude toward task was an important measure for success, but negative user attitude toward librarian was more likely to be a factor in failure. Table 15 provides examples of librarians' comments related to relational barriers.

Table 15
Representative Librarian Responses Related to
Barriers–Relational Factors

Negative Attitude

“If a student shows impatience, inattentiveness . . . his or her seriousness in actually finding an answer and giving time, I think that’s a personality that unfortunately is lacking in many students today.” (L02)

“People who approach you and they’re angry and hostile, you know, that doesn’t help because when you’re trying to communicate with someone . . . I think that’s when you’re off to a really bad start.” (L03)

“I think the people that are harder to work with don’t want to be bothered finding what it is they need . . . don’t want to go through the steps . . . some of the students are reluctant users of the library. They have an assignment to do and they really don’t care about it.” (L05)

“A person who is here under duress well, they’ve got this assignment. They *have* to go to the library because it’s the only place where this information that they need is available and they *have* to write this paper and they resent every minute of it.” (Pilot Librarian B)

Poor Relationship Quality

“They really expect to be handed everything, and that’s become far more prevalent in the last couple of years.” (L07)

“[Poor users are] the ones who wait until two days before the assignment is due before they start thinking about it.” (L06)

“People have a tendency not to understand that the librarian needs certain information to make it a more prosperous, successful session at the reference desk.” (L02)

Users’ Relational Barriers

Like librarians, the users’ categories for relational barriers were fuller than the content barriers. The same categories were present, but there were differences in degree of importance. For example, compare the users’ emphasis

on librarians' lack of approachability mentioned by fifteen users (47%), but only three librarians (27%) (see table 16). In addition, under negative attitude, users' subcategories included: evades user, resists user, and resists interaction. These were not present in the librarians' interviews.

Table 17 provides examples of user statements classified as relational factors under the barriers theme. For users and librarians, the same categories for facilitators were also present in the barriers theme, although cast negatively:

- negative attitude, including negative attitude toward librarian (by user) or toward user (by librarian) and negative attitude toward task;
- Poor relationship quality, including user rejecting librarian, user lacking in self-disclosure, poor communication skills, not process oriented;
- lack of approachability, including negative nonverbal behavior and avoiding user contact.

Responses of librarians and users regarding relational barriers are compared in table 16. Higher percentages of the librarians commented on rela-

Category	Librarians (N=11)*	Users (N=32)*
Negative attitude of user		
toward librarian	8L (73%)	3U (9%)
toward task	5L (45%)	2U (6%)
Negative attitude of librarian		
toward user	8L (73%)	9U (28%)
toward task	7L (64%)	6U (19%)
Poor relationship quality		
of user	10L (91%)	0
of librarian	7L (64%)	9U (28%)
Lack of approachability		
of user	0	0
of librarian	<u>3L (27%)</u>	<u>15U (47%)</u>
Total	45L**	44U**
<p>* Includes main study and pilot study participants. ** Total exceeds N because users and librarians discussed multiple relational factors.</p>		

Table 17

Representative User Responses Related to Barriers–Relational FactorsNegative Attitude

“If the librarian came on strong, with an attitude of mumbled something about [annoyed voice, under the breath grumble] ‘can’t find it in the card catalog’ or anything that would belittle me as an individual in body language or in verbal response would put up my guard and make me feel less of a person at that time and would make my back go up and I wouldn’t want to continue with the event that was taking place.” (Pilot User C)

“Well, some librarians are really sour and they’re like ‘Well why don’t you do your own research?’” (U10)

“They just didn’t want to get involved.” (U09)

“They’re not very patient toward ‘freshpeople.’” (U15)

Poor Relationship Quality

“She was just, you know, ‘Oh, did you look in such and such a place first?’ and I say ‘Oh no.’ ‘Well, why don’t you look there and then get back to me, did you even *bother* to check the card catalog?’ Or they say things like . . . well, I’ll go ‘Oh no, well, you know I came to you for help.’” (U13)

“Some librarians, like, they don’t have a lot to say; it’s quick, it’s like a yes or no answer.” (U27)

“The librarian was so busy, caught up in what she was doing, she . . . didn’t have time to help just to show you or direct you where you should go . . . she should have at least took the time out, she could get back to whatever she was doing at a later time.” (U03)

Lack of Approachability

“They’re just like ‘Wait a minute’ and they’re just sitting there talking to somebody, you know, really rude.” (U15)

“They stare, and it makes you kind of uncomfortable.” (U17)

Table 17 cont.

“They’re sipping . . . something to eat, something to drink . . . and they’re like ‘Oh, alright’ and . . . they give you this like, their body language, their facial expressions, they don’t have to come right out and say, it’s just like the way they present themselves.” (U13)

Table 18**Information Retrieval Technology as Barrier**

Category	Librarians (N=11)*	Users (N=32)*
Content factors		Content factors
Negative impact on search process	4L (36%)	Librarian uncomfortable with computers 1U (3%)
Negative impact on information retrieval	2L (18%)	Librarian lacks knowledge of computer systems 1U (3%)
Negative impact of maintenance routines	4L (36%)	Librarian resists technological change 1U (3%) Hardware may malfunction 1U (3%)
Relational factors		Relational factors
Fosters user dependence on librarian	1L (9%)	User uncomfortable with computers 1U (3%)
Made reference interview more difficult	2L (18%)	
Total	13L**	5U***

* Includes main and pilot study participants.

** Total exceeds N because librarians gave multiple barriers. Librarians were directly asked about impact of technology, but users were not.

*** Total is less than N because not all users specified information technology as barrier.

tional barriers than users. Negative attitude toward librarian (eight librarians, 73%) and poor relationship quality (ten librarians, 91%) were among the highest percentages. For users, the highest percentage related to the librarians’ lack of approachability (fifteen users, 47%).

Table 19
Representative Librarian Perceptions of Information
Retrieval Technologies as Barriers

“[information technology] has changed the entire interaction . . . from a skill perspective the interaction is more intensive . . . the products were developed ultimately with hope that they would perhaps speed up and or shorten the . . . interaction, but it seems to have had, at least in this point in time, the opposite [effect].” (L02)

“Even with the kids who are computer smart, they don’t know, they haven’t the understanding of how you search.” (L01)

“In some ways, they’ve made my job so much easier and in some ways, they’ve made my job so much harder . . . harder by their very nature and by . . . administrative responses . . . to deal with hardware and software problems.” (L06)

“People’s expectations have been raised . . . you give them a database and all of a sudden they expect it to be a complete database . . . and there is this sort of continuing naive user that believes that if it’s in the computer, it must be so. It’s the sort of naivete that used to be attached to books.” (L06)

“There’s a lot of technical things that can go wrong that might not go wrong in printed index.” (L05)

“I went over to OCLC . . . and it was slow and she [a user] was very impatient . . . I hope that she realized that I’m only human, and I was trying to make a machine work.” (Pilot Librarian B)

Information Retrieval Technologies as Barriers

The category of effects of information technologies on reference interactions was evident in both the barriers and facilitators categories. Again, because they were asked directly about the impact of information technologies, librarians provided most of the responses (see table 18). According to the librarians these technologies, at times, have had a negative impact on the search process, information retrieval, and on work flow. Librarians attributed

Table 20
Representative User Perceptions of
Information Technologies as Barriers

“She wasn’t apparently as comfortable with the computer, and she didn’t know how to do it for me.” (U08)

“I’m just not very comfortable with the computers.” (U16)

“Sometimes they [the librarians] have trouble with the computers . . . sometimes just even the mechanical part of it with the changing the paper or something.” (U07)

this mainly to the need to provide technical support in the event of software or hardware problems. Some also felt that the presence of the technologies resulted in the reference interaction taking more time because it was necessary to teach both the mechanics of searching and the approach by subject. Tables 19 and 20 give examples of responses related to this theme.

External Constraints as Barriers

Both librarians and users mentioned many factors that were either preexisting conditions or external constraints that had a negative impact. These responses were grouped under the category external constraints that form barriers to goal achievement¹¹ and had the following four subcategories:

- lack of time;
- lack of resources;
- distracting level of activity in library;
- uncomfortable physical facility, environment.

Table 21 provides examples of these categories.

As can be seen in the presentation of the detailed outline of categories, every effort was made to preserve the high level of complexity of the responses and of as many key concepts as possible. Additional discussion of these findings is provided in chapter 8.

Notes

1. The author placed the interview transcripts into notebooks sequentially, preinteraction interviews with librarians 01 to 09 and postinteraction interviews with librarians and users 01 to 27. She also placed librarian and user transcripts for

Table 21
Representative Librarian and User Responses—External
Constraints That Form Barriers

Lack of Time

“We have people who come in and then say ‘Oh, I really have to run and I don’t have time to do it now.’” (L08)

Lack of Resources

“Our collection is not geared to support that question . . . A lot of it [the failure] had to do with the collection, the strength of the collection.” (L06)

Distracting Level of Activity in Library

“It was very busy, the microfilm machines were breaking, the phone was ringing, there were a lot of people.” (L09)

Uncomfortable Physical Facility, Environment

“It’s just the fact that all these books are here. I don’t know, sometimes I feel, especially here, it’s very stuffy, the library’s very hot. I mean it’s been twenty degrees out there, and I’ve been in here and I’ve been hot.” (U18)

each interaction together along with completed Observation Forms A and B, and user and librarian demographic data forms. In this way, all data for each interaction were placed together for analysis. This organization was further facilitated through use of tabs of colored paper and attached to the top of each of the different forms. Each form had a different color assigned to it. For each interview, the number of the interaction plus the “L” for librarian or “U” for user was marked on these colored slips of paper attached to the first page. This make it possible to quickly locate the transcript and supplementary data for each member of an interaction.

2. Grant McCracken, *The Long Interview* (Newbury Park, Calif.: Sage, 1988), 42.

3. *Ibid.*, 46.

4. These hypotheses and future directions will be discussed more fully in chapter 9. See Hope J. Leichter and Vera Hamid-Buglione, *An Examination of Cognitive Processes in Everyday Family Life* (New York: Columbia University, Elbenwood Center for the Study of the Family as Educator, 1983) ERIC Document 226 849.

5. For a more in-depth discussion of the procedure for developing the outline of categories, see Marie L. Radford, “Relational Aspects of Reference Interactions: A Qualitative Investigation of the Perceptions of Users and Librarians in the Academic Library” (Ph.D. diss., Rutgers—State Univ. of New Jersey, 1993).

6. The multichromatic analysis technique was developed by de Chesnay and

described by Edwina Skiba-King, "An Examination of the Patterns of Self-Reported Disclosure by Incest Survivors" (Ph.D. diss., Rutgers—State Univ. of New Jersey, 1993). For a fuller description of this technique, see Radford, "Relational Aspects of Reference Interactions."

7. See appendix G.

8. All quotations are taken verbatim from the librarian–user interview transcripts, unless otherwise noted.

9. See appendix G.

10. See appendix G.

11. See appendix G.