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ABSTRACT

This unobtrusive study conducted at the Brigham Young University Library was designed to determine whether reference questions are appropriately referred by student and paraprofessional assistants. Issues addressed included: (1) the percentage of questions assistants cannot answer themselves that are referred to professionals; (2) the percentage of questions more appropriately answered on another floor or department that are referred to that floor or department; (3) the percentage of questions requiring the patron to go to an outside collection that are referred to that collection; (4) the percentage of requests for documents not possessed by the library that are referred to interlibrary loan; and (5) the percentage of appropriate referrals by paraprofessional assistants compared with referrals by student assistants. The study population included 38 assistants at five reference desks. Eleven proxies asked the assistants a total of 125 reference questions over a 3-week period. These questions were designed to study the accuracy, negotiation, and referral aspects of reference service. Results indicated that the assistants are aware of their limits and the limits of the collections, as well as other collections in the library and on campus. Referral performance was impressive except for the lack of referral to interlibrary loan. Suggestions for further research are included. Referral questions, proxy instructions, the proxy report, and the data list are appended. (13 references)
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BRIGHAM YOUNG UNIVERSITY

APPROPRIATENESS OF REFERRALS

IN HAROLD B. LEE LIBRARY:

AN UNOBTRUSIVE STUDY

A REPORT SUBMITTED TO

DR. MARSHA BROADWAY AND LIS 696

IN CANDIDACY FOR THE DEGREE OF

MASTER OF LIBRARY AND

INFORMATION SCIENCES

SCHOOL OF LIBRARY AND INFORMATION SCIENCES

BY

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REVISED REPORT
APRIL 1989

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APPROPRIATENESS OF REFERRALS
IN HAROLD B. LEE LIBRARY:
AN UNOBTRUSIVE STUDY

CHAPTER 1

THE PROBLEM

In 1986, the Graduate Council and Faculty Library Council of Brigham Young University recommended to the Harold B. Lee Library Administration that the reference services be reorganized. The recommendation called for Student Reference Assistants (SRAs) and fulltime paraprofessional Department Assistants (DAs) to staff the patron service desks. Professional librarian Subject Specialists (SSs) were removed from the desks to attend to other duties, although they provided backup on a scheduled basis to the SRAs and the DAs as needed.

In Winter Semester 1987, a study was conducted to see how well the SRAs and DAs were performing at the reference desks (Hall, et al.). The original study consisted of five parts. The present study dealt only with the portion that concerned the appropriateness of referral given by the SRAs and DAs (hereafter referred to jointly as Assistants, except where distinction was deemed necessary).

In the 1987 study, unobtrusive questions were designed and asked in order to determine the SRAs' performance in the areas of accuracy, question negotiation, and referral. However, none of

the questions was specifically designed to measure referral performance. The researchers decided that any question an SRA could not answer or answered incompletely became a referral question, and the answer was scored according to whether or not the SRA referred it to someone who could provide a complete answer. Of the seventy-five questions asked, it was determined that seventeen should have been referred. Eleven of the seventeen (65%) were referred appropriately (Hall, et al. 1987).

Statement of the Problem

Are questions requiring referral appropriately referred?

Since the 1987 study (Hall, et al.), a policy and procedure manual (Reference Services Manual) and training programs for the Assistants were developed. In conjunction with the present study, the accuracy and negotiation portions of the previous study were replicated by other researchers to see what effect the manual and training have had. The manual and training also address referral, but the 1987 study was not systematic in its evaluation of referral practices. This study, therefore, attempted to provide a baseline measure of referral performance by the Assistants. This study was not a replication of the previous study, so a direct comparison of referral rates was not possible. However, this study was designed to be replicable, so that later studies can evaluate differences in the level of service over time or after other training or procedural changes are made.

Importance of the Study

The measurement of referral performance is important because it indicates how well patrons are directed to the areas or people that can provide answers to their questions, and it can indicate what steps need to be taken to improve this part of reference service. A high percentage of appropriate referrals means that patrons are saved a lot of wasted time, effort, and frustration caused by seeking information in the wrong place.

Literature Review

There have been a number of studies of referral by librarians and other professionals to other non-library professionals or services, such as doctors, specialists, therapists, or social service agencies (Childers, 1984; Hawley, 1987). By contrast, studies of in-house library referrals or referrals to other libraries are rare. A study by Halldorsson and Murfin (1977) revealed that nonprofessionals referred or consulted on only 28% of those questions they were unable to answer. Murfin and Bunge (1988) found that paraprofessionals on the reference desk only consulted other staff on 7.9% of reference questions. Their respondents reported much less satisfaction with the service they received from paraprofessionals, primarily because of the latter's inability to adequately negotiate queries and provide more complete answers. The paraprofessionals' weakness in negotiation resulted in their not discovering the patrons' real need and referring them to appropriate sources for help. More frequent consultation with or referral to professionals might

have helped the paraprofessionals learn better negotiating and answering skills, since the patrons rated the service by professionals significantly higher. Van House and Childers (1984) examined the accuracy rate of five reference centers to which local libraries in the five systems referred questions they could not answer, but did not look at in-house referral.

Hawley (1987) specifically addressed referrals within the library as well as to other libraries and pointed out the lack of published research in this area. He conducted an investigative study to determine factors that influenced whether or not librarians made referrals. He identified fourteen factors grouped in four categories, including Personal Factors, Library Factors, Outside Resources, and Factors Concerning the Users. Many of these factors are likely to influence the decision of the Assistants to make referrals, but some of the factors apply more to professional librarians in relatively permanent employment. Those whose performance was measured in this study have primarily their BYU library employment training and knowledge of library resources to encourage referrals.

Research Questions

The main question this study attempted to answer is: What percentage of questions requiring referral are appropriately referred?

Subsidiary questions are:

1. What percentage of questions Assistants cannot answer themselves do they refer to professionals?

2. What percentage of questions more appropriately answered on another floor or department are referred to those floors or departments?
3. What percentage of questions requiring the patron to go to an outside collection are referred to those collections?
4. What percentage of requests for documents not possessed by the Lee Library or BYU Library System are referred to Interlibrary Loan?
5. How did the percentage of appropriate referrals by DAs compare with the percentage of appropriate referrals made by SRAs?

Assumptions

This study assumed that referral to the appropriate department, floor, or professional resulted in the patron's being able to get an accurate answer to his question. Since the professionals are the highest level resource available, they are assumed to be sources of correct information. In order to find the answer, the patron must first find the collection or the individual that can provide the answer.

It was also assumed that the Assistants working at the reference desks during this period did not differ in any significant or systematic way from those employed at any other non-holiday period, so the results should be generalizable to the service as a whole.

The study also assumed that the Assistants had read the Reference Services Manual and participated in the training program as required for each floor.

It was assumed that the Assistants were unaware of the time period when the data was collected.

It was assumed that proxies understood and followed directions, both in asking questions and in completing the questionnaire.

Delimitations

This study was primarily concerned with referrals to on-campus library facilities, although referrals to off-campus libraries occurred and were accepted. In practice, librarians refer patrons to places they feel could provide an answer, not necessarily to the closest or most efficient source (Hawley, 1987), so a less efficient referral was not penalized if it was an effective one.

The researchers did not address referrals to non-library professionals (doctors, therapists, etc.).

The study also did not address the effect of maturation or experience on SRA performance, since the high turnover rate ensured almost 100% new employees since the previous study (this will likely be true between the current study and any successive studies, too). DAs, on the other hand, may be employed for longer periods, so experience and maturation may be factors with them.

This study did not test the accuracy of final answers to questions, but only whether a referral to an appropriate resource was made.

Definitions

Accuracy: "Correct and complete answer(s) that satisfy(ies) a patron's information need."

Department Assistant: "Department Assistants are full time paraprofessional staff hired primarily to supervise and assist in providing reference service. The amount and responsibility given to this person may vary by department, depending on the person's knowledge and experience in the department" (Reference Services Manual, p. 3.18).

Interlibrary Loan (ILL): A department maintained within the library which, upon request, provides patrons with documents borrowed from another library.

Negotiation: Methods used by reference personnel to clarify the patron's ultimate information need.

Other Floor/Department: A floor of the library other than the one the patron is on when asking his question, or a separate department or collection housed within the library but not within the control of the reference librarian or staff at the reference desk (i.e. Archives and Manuscripts or Special Collections, which have their own staffs to provide assistance).

Outside Collection: A library collection usually located on campus but not in the Lee Library building. Two questions from the fourth floor call for off-campus referrals because the religion collection has no other on-campus resource. A partial listing of the on-campus collections can be found in the Site Description section of Chapter 2.

Professional Librarian/Subject Specialist: Full-time librarians with MLS degrees and a specialty in one or more subject areas who have offices near the reference desks on their specialty floors and are available for consultation and special services on a scheduled or on-call basis.

Proxies: Students in the LIS 696 class during Winter Semester 1989 who asked the questions and provided data about the interactions and the answers received.

Referral: The ALA Glossary (1983) does not give a definition of referral. The Webster's Third New International Dictionary (1981) defines referral as "the process of directing or redirecting to an appropriate specialist or agency for definitive treatment" (p. 1908). Childer's (1979) definition applies to Information and Referral Services, and specifies that referral is "facilitating the link between a person with a need and the service, activity, information, or advice outside the library which can meet the need" (p. 2036). This definition rules out most of the behaviors that this study sought to examine. Hawley

developed and refined his definition of referral throughout his book, finally deciding that referral is:

An act of library employees . . . responding to individuals' needs by directing these individuals to another person, or to a place under the control of another person, for the fulfillment of these needs (Hawley, p. 144).

This study used Hawley's definition because it includes all the activities the researchers wanted to study and encompasses the referral criteria given in the Lee Library's Reference Services Manual: "If [the Assistant] cannot meet the users' needs, refer the questions or the users to the paraprofessional department assistant, the reference specialist, or the appropriate subject specialist (p. 3.18)."

Hawley leaves Interlibrary Loan (ILL) out of the scope of his definition because it is carried out by the librarian who takes the question. At the Lee Library, a patron may be sent to ILL, which is a separate department, under another person's control. Thus, referral to ILL also fits Hawley's definition which was used in this study.

Student Reference Assistant: BYU students who are trained to answer questions and assist patrons on a specific floor of the library. They may or may not have a library background, although many of them are students in the MLIS program.

Unobtrusive study: A study in which the subjects are unaware of being tested.

CHAPTER 2

METHODOLOGY

The purpose of the study was to measure the Student Reference Assistants' and Department Assistants' (collectively referred to as Assistants) performance in appropriately referring questions received at the reference desk. An unobtrusive test using proxies and questions designed to elicit referrals was developed to measure referral performance.

Specifically, this study measured the service at BYU's Lee Library, and data were gathered at all five reference desks in this library. During a three-week period, March 3-22, proxies asked selected questions of the Assistants at pre-determined reference desks and recorded the responses they received on the Proxy Question Report (see Appendix C). Eight questions designed to elicit referrals were asked on each floor, each question being asked only once. The responses were coded, tallied, and analyzed using SPSS/PC+ Studentware.

Site Description

The Harold B. Lee Library is a central library located in the middle of the BYU campus. Because two floors are below ground-level, the main floor is actually the third floor. Five floors house the collection, and each one has a reference desk

located near the middle of the floor, very visible and accessible in high traffic areas near the stairway and elevator entrance to the floor. These desks are staffed by Assistants.

The floors are divided according to subjects as follows:

First floor: Ethics, Government Documents, Social Sciences, Education, Sociology, and Psychology (also, Map collection and Asian collection):

Second floor: General Science, Physical Science, Home Economics (also, Learning Resource Center);

Third floor: General Reference (also, Reserve Reading Room and Interlibrary Loan);

Fourth floor: History, Religion, Philosophy, Anthropology (also, Genealogy collection and the Special Collections room);

Fifth floor: Humanities, Music, Art (also, Archives and Manuscripts and Juvenile collection).

A computerized catalog (BYLINE) has terminals on all floors and is accessible by personal computers both on- and off-campus. BYLINE has records of books acquired since 1978 plus older items circulated since then, and a card catalog on the third floor contains holdings up to 1978. Computer terminals are also available on most floors to perform searches on RLIN and to

perform subject-specific searches on CD-ROM systems. Professionals perform online searches.

In addition to the Lee Library, there is also a law library, business library, small science library in the Bean Museum, music library, and several specialized learning resource centers on campus.

The Library's collection includes approximately 2 million volumes and the annual circulation is about 800,000.

Population

The population included thirty-eight Assistants who worked at the five reference desks in the Lee Library during the weeks of March 3 to 22, 1989. There is one DA working on each floor, for a total of five. Based on the Winter 1989 work schedule, there were seven SRAs on the first floor, six on the second floor, seven on the third, seven on the fourth, and six on the fifth floor. Four SRAs, two from the first floor and two from the third floor, belonged to the group of MLIS students performing this survey, and they were excluded from the sample tested. These four students did not ask questions on the floors on which they work. Using a photographic directory, work schedule, and the Assistants' name tags, the researchers attempted to include as many members of the entire population in the study as possible. The Winter semester extends from early January to late April, and the sample period was close to midterms. This time period should have provided a representative sample of reference services.

Data Collection Procedures

Proxy training: The proxies included the eleven students (5 males, 6 females) in LIS 696 class in the Winter semester 1989. All of these students have had the research methodology course offered in the MLIS program (one was taking it concurrently). All eleven students participated in the development or critiquing of questions, coding sheets, and questionnaires. Several class sessions were devoted to discussion of how to handle and score various types of responses to questions. Each student acted as a proxy in a local public library's reference services study in February, 1989. Successes and problems from that experience were used to refine research methodology, questions, and the Proxy Question Report and instructions. An instruction sheet was included with the scoring sheet to remind the proxies of how to ask questions and score various responses (see Appendix B).

Data collection: The schedule for data collection was developed by examining the work schedules for each of the five floors. The researchers isolated thirty-three SRAs from the schedules. DAS were not listed, and professionals and the four SRAs who were in LIS 696 class were not included. The researchers selected times when each SRA worked alone, if possible. For those who did not work alone, a time was selected when they worked with one of the SRAs from the LIS 696 class. This was to attempt to ensure that each SRA was asked at least one question. No attempt was made to control for SRAs trading

shifts. However, there were five-to-seven SRAs working on each floor, so the remainder of the eight questions per floor were scheduled at times when two or more were working at the desk. The DAs are full-time workers, available during regular office hours (8 a.m. to 5 p.m.), and could be asked questions at any time. Approximately half of the questions were asked before noon and the other half between noon and 5 p.m. No questions were asked after 5 p.m. or on weekends because many offices and departments were closed at those times, making referral much more difficult and, therefore, less likely.

The proxies selected questions to ask on the basis of the proxy's availability at the time the questions were scheduled to be asked. A total of 125 questions (from three studies running concurrently) were distributed in this manner, so any particular student may have received one to seven referral questions in their total of approximately thirteen questions each. They were allowed to exchange questions if they did not feel they had the background to answer any negotiation questions the Assistants might have asked. Proxies were instructed to ask the questions as given, except that they could substitute "My husband (wife, friend, etc.)" in place of "I" if the Assistant knew the proxy and would know the premise of the question was false. The referral questions were designed in such a way that no further negotiation or background information should have been needed.

Proxies asked their questions over the three-week period, at the specified location, at the specified time and day of the week

in all but five cases. Immediately after the interaction, away from the reference area, the proxy completed the Proxy Question Report attached to the question. A photographic directory was used to confirm the status of the staff involved in the transaction.

At the end of the test period, all the questions and score sheets were collected. Answers to questions designed to study one aspect of reference services (accuracy, negotiation, and referral) that fit more than one of these categories, were analyzed in each of the appropriate studies. For example, forty questions were designed for referral, but since the negotiation study group analyzed all of the usable questions, both referral and negotiation groups evaluated the results. In the previous study, those questions that received a wrong or incomplete answer were treated as questions that should have been referred. The researchers in this study felt Assistants would not give an answer they knew to be wrong. Therefore, the Assistants could not be expected to refer a question they thought they knew the answer to.

The researchers in this study evaluated the referrals given to see if they were made appropriately. The professional librarians in charge of each of the floors provided the most likely or appropriate sources, but referrals that differed from those sources were checked by the researchers. The alternate source or the librarian in charge of the libraries or collections

was contacted by phone or in person and asked whether or not the answer could be found in that collection.

The Proxy Instructions and Proxy Question Report are included in Appendices B and C.

Instrument

The library literature failed to disclose a survey instrument appropriate to this study. Outside of the library field there were many studies of referral behaviors, but they included only referral to sources outside of the library, and usually to non-library professionals, especially counselors or medical specialists. For these reasons the researchers created a new instrument. In consultation with the subject specialists on each floor, eight questions from each floor were developed. These consultations attempted to ensure that the questions were realistic, clear, and varied in degree of difficulty so that some would require professional assistance. The forty questions were then typed and given back to the librarians for review during their monthly staff meeting so that they could make sure that the level of difficulty for each floor was approximately equal. After this review the questions were returned to and critiqued by the LIS 696 class members. The Lee Library Reference Evaluation Committee reviewed the questions and made some changes in consultation with the subject specialists, again in an attempt to make the questions very similar in type and degree of difficulty for each floor. The revised questions became the instrument.

The questions were open-ended and designed to cover four types of referral:

1. to a professional librarian;
2. to another floor or department;
3. to an outside collection;
4. to Interlibrary Loan.

The questions are reproduced in Appendix A.

The instructions given to the proxies are in Appendix B, and Appendix C comprises the Proxy Question Report. The Proxy Question Report was developed by the LIS 696 class to cover all three studies (accuracy, negotiation and referral). Three referral questions were pretested to determine the adequacy of the Proxy Question Report, but the pretest was done too late for changes to be made in the form before data collection. However, proxy instructions were clarified on the basis of pretest experiences.

Limitations

This was meant to be an unobtrusive study; however, some of the Assistants were aware beforehand that it was to be done. Many of the SRAs are in the MLIS program and know the proxies personally. These factors worked against the study being unobtrusive. Another problem was that MLIS students could be expected to know the answers to many of the questions asked in the study. This became a major problem as proxies reported difficulty asking "stupid" questions and getting blank or surprised stares from SRAs who thought the proxies should know

the answers to those questions. (In at least one case, a proxy reported having changed the question to make it seem less "stupid," but the other proxies stated they did ask the questions as given. Even though the intent of the question was changed the answer still resulted in a correct referral. Question #R3.4 "Where is CIJE?" was changed to "I need to know what indexes index CIJE.") It may have been obvious to the Assistants who knew the proxies that these were test questions. However, few Assistants had access to the dates of the testing period, and many of the proxies ask questions at the reference desks fairly regularly, so these factors may have made it harder for the Assistants to differentiate actual queries from test questions.

The small number of questions asked on each floor made it impossible to adequately compare the proportion of accurate referrals on the different floors.

CHAPTER 3
ANALYSIS OF DATA

Forty questions were designed to elicit referrals from the Student Reference Assistants (SRAs) and Department Assistants (DAs), at the Lee Library reference desks. Eight questions were asked on each of the five floors. Each set of eight questions consisted of four types, with two questions of each type. The four types were referral to 1) a professional librarian, 2) another floor or department, 3) an outside collection, and 4) Interlibrary Loan. Two other studies, testing negotiation and accuracy, were done concurrently, using the same proxies as this study. Any questions from those two studies that were referred or were not answered and, therefore, should have been referred were added to this study.

Four of the referral questions were unusable. Three that were designed to be referred to a professional were answered correctly by SRAs without requiring referral (#3.1, 3.2, and 4.1), one question (Interlibrary loan referral, 3.7) was mistakenly asked of a professional. Ten questions from the Accuracy and Negotiation studies were referred, and were added to this study.

The forty referral questions were scheduled to be asked on specified floors, days, and times, in order to test all floors

equally and to try to have each SRA or DA respond to at least one question. All questions were asked on the correct floor and 31 of the 36 usable questions were asked in the specified hour, so most of the population was tested. The most frequent reason for questions being asked at the wrong time was that a professional or a student who was also a proxy in the study was manning the desk at that time because of schedule changes or other uncontrollable reasons.

The SRAs' and DAs' appropriate referral rates were to be compared, but this was not possible since only 3 DAs provided answers to any of the 46 questions (including the 10 Negotiation and Accuracy questions) asked. That sample is far too small to be meaningful, so the SRAs and DAs were grouped together in the final results.

Since the data was nominal, only simple frequencies, percentages, and ratios were calculated, using SPSS/PC+ Studentware. Only descriptive, not inferential statistics are given. (The data file is included in Appendix D.)

If a partial answer was given without referral to a source that could provide a full answer, then the question was scored as "answered incorrectly." If an answer was essentially, "I don't know," and no referral was given, the answer was scored as "no answer, no referral."

The percentage of questions appropriately referred was obtained by comparing the number of questions that should have been referred to the number of questions that were appropriately

referred. Eighty percent of the referral questions were appropriately referred. With the additional ten questions from the Accuracy and Negotiation studies, 85% were appropriately referred.

The percentage of appropriate referrals to a professional was obtained by comparing the number of questions that should have been referred to the number of questions that were appropriately referred to a professional. One hundred percent of all these questions were appropriately referred.

The percentage of appropriate referrals to another floor or department was obtained by comparing the number of questions that should have been referred to the number of questions that were appropriately referred to another floor or department. Ninety percent of all these questions were appropriately referred. The question inappropriately referred in this category was R5.3.

The percentage of appropriate referrals to an outside collection was obtained by comparing the number of questions that should have been referred to the number of questions that were appropriately referred to an outside collection. Eighty percent of all these questions were appropriately referred. The questions inappropriately referred in this category were R1.6 and R2.6. R5.5 was referred to a professional.

The percentage of appropriate referrals to Interlibrary Loan was obtained by comparing the number of questions that should have been referred to the number of questions that were appropriately referred to Interlibrary Loan. Fifty-six percent of

all these questions were appropriately referred. The questions inappropriately referred in this category were R2.7, R3.8, R4.8, and R5.7. R3.7 was mistakenly asked of a professional and was excluded from the study.

Seven Accuracy and three Negotiation questions were referred. Four of them were appropriately referred to professionals. Five questions were appropriately referred to another floor or department. One question was appropriately referred to an English professor. Overall, 100% of these questions were appropriately referred.

Table 1, below, summarizes the above data.

Again, this is a baseline study. Successive studies will be able to test for significant changes in the proportion of appropriate referrals.

Table 1.--Percentages of Appropriate and Inappropriate Referrals

Type of Referral	Number of Usable Questions	Percentage of Appropriate Referrals	Percentage of Inappropriate Referrals
Professional	7	100%	
Another floor or department	10	90%	10%
Outside collection	10	80%	20%
Interlibrary Loan	9	56%	44%
Referred Accuracy/ Negotiation Questions	10	100%	

CHAPTER 4
SUMMARY AND CONCLUSIONS

The present study attempted to measure what percentage of questions requiring referral were appropriately referred. The subsidiary questions were:

1. What percentage of questions Assistants could not answer themselves were referred to professionals?
2. What percentage of questions more appropriately answered on another floor or department were referred to those floors or departments?
3. What percentage of questions requiring the patron to go to an outside collection were referred to those collections?
4. What percentage of requests for documents not possessed by the Lee Library or BYU Library System were referred to Interlibrary Loan?
5. How did the percentage of appropriate referrals by DAs compare with the percentage of appropriate referrals made by SRAs?

This study was intended to be unobtrusive, using LIS 696 students as proxies for collecting data. The data collection involved the use of 40 referral questions (Appendix A). The questions were scheduled to be asked at predetermined times and

places. At the end of the three-week data collection period, all questions and score sheets were collected, distributed to each of the groups (Accuracy, Negotiation, and Referral), and the data was analyzed using SPSS/PC+ Studentware.

The 1987 Hall et al. study produced an appropriate referral rate of 65%. The current study was designed to look at referrals more systematically, and the overall appropriate referral rate was 85%, with a range from 56% for "Referrals to Interlibrary Loan" to 100% for "Referrals to a Professional." The latter was somewhat inflated by definition; any question sent to a professional was considered properly referred, since the professionals are the highest level resource available and are assumed to be sources of the correct information. Even with this weakness, the results were impressive. Five of the questions designed for a referral to a professional were written with a particular professional in mind. In four cases, the Assistant gave precisely that professional's name (the fifth was answered without requiring referral), so these were instances of knowing the proper resource. Only one of the questions designed to be referred to a specific place was referred to a professional instead, indicating that the Assistants were not turning over a majority of the questions to the professionals. Four additional referrals to professionals came from the Accuracy and Negotiation questions. [These questions were numbers A1.3, A2.8, A4.6, N5.1. The following questions also were referred: A3.5, A3.6, A4.5, A4.9, N3.1, and N3.5 (Beck, Carter, and Skousen 1989; Follett,

Giles, and Wright 1989).] Three of the questions designed for professional referrals were correctly answered by the Assistants without referral and were not included in referral statistics. This indicates that the Assistants did even better than expected by the professionals who assisted in designing the referral questions.

Questions designed to measure referral to another floor or department were referred to the correct area 90% of the time demonstrating that the Assistants are familiar with areas other than their own.

The researchers expected that performance would be much poorer in referrals to outside collections, feeling the Assistants would be less familiar with resources outside of the Lee Library. However, the Assistants were able to refer the proxies to an appropriate outside collection 80% of the time.

Questions needing referral to Interlibrary Loan were appropriately referred only 56% of the time. The researchers had expected these questions to yield the best results. Proxies reported being told, "We don't have (the requested document)," which is basically what the proxy had told the Assistant in the wording of the question. Apparently, the Assistants were not familiar with the services that the Interlibrary Loan provides and should be reminded of how to deal with requests for materials not in Harold B. Lee Library's holdings.

The questions that were added to the study from the Accuracy

and Negotiation groups were appropriately referred 100% of the time.

The overall results of this study indicate that the Assistants are very much aware of their own limits and the limits of their collections. They are also aware of the other collections in the Lee Library and on BYU campus. Their performance in redirecting proxies to proper sources that could answer their questions was very impressive. The one weak area in the referral performance was in the lack of referral to Interlibrary Loan for documents not owned by the Lee Library.

Recommendations

Due to the excellent results obtained in the study, the only recommendation as far as improving training, is to emphasize that patrons who request documents the library does not possess should be referred to Interlibrary Loan.

Several recommendations can be made, though, on ways to improve the study and possibly improve its accuracy and reliability.

Suggestions for Improving the Present Study

1. Following the 1987 Hall et al. study, the Reference Services Manual was developed and a training program implemented at the Harold B. Lee Library. Each floor has adapted the procedures from the manual as applicable to their staff training needs. This study assumed that all Assistants had read the

manual and completed the training. Future studies might verify this rather than assume it.

2. The size of the instrument was fairly small, limiting the interpretation of the resulting data. Future studies could include more questions for each category. Questions to be referred to collections outside the Lee Library should include all resource collections to ensure that Assistants are knowledgeable with all other on-campus collections. In designing additional or replacement questions, it is important to ensure that the level of difficulty for each floor be kept approximately equal. This was the most difficult part of developing the instrument in this study, but it would be especially important if a future study attempted to compare performance of the different floors with each other. Such comparative studies would enable the librarians to ensure a consistent level of training on each floor.

3. The main fault in this study was the fact that the referral questions were asked by LIS 696 students who were peers of many SRAs working at the reference desks. Some of the questions were inappropriate for LIS students to be asking, while others were difficult because the SRAs knew that the premise of the question was false (Example: 2.2: "I am a school librarian ..."). It is, therefore, recommended that future studies do not use library science students as proxies. Each student could find a proxy (friend, roommate, spouse, etc.) who could come to the training session and to one session after the data is gathered to

report any problems and whether they followed instructions on each question.

4. There were several problems with the Proxy Question Report. The same report form was used for three different studies, which resulted in some confusion in recording information about the interaction and the answers received. In combining forms developed by each group, questions were moved around, context was lost, and the form ended up being less useful to all three research groups than their original forms. For example, the checklist labeled "Question type" was misinterpreted to mean what group the question came from rather than how the question was dealt with. Also, question #7, "Indicate the way in which the reference assistant dealt with your question" did not give the option "Referred." Question #8 "Write the answer given to the question here:" would have been clearer as "Write the answer given to the question, or the person or place referred to, here." A separate form should be used for each study in the future. It might also be helpful to have a role-playing session during the class period to simulate some of the possible interactions, followed by a discussion of how to record the results on the Proxy Question Report.

Suggestions for Further Research

1. The definition of 'referral' needs to be standardized in the Harold B. Lee Library. It was discovered in the course of developing the instrument that the different professionals within the Lee Library had a variety of definitions that affected the

questions they developed. Some considered any appeal to another person or place as a referral, while others felt that passing question to a DA or a professional was just following the chain of command, and the act was not a referral unless the patron was sent to another floor, department, or outside collection. This complicated the gathering of questions designed for referral to professionals.

2. Further studies of referral performance could develop questions testing various aspects of referral as this one did. The types used here may not be appropriate, but other areas, such as referral to public resources, government agencies, or crisis services could be included.

3. This study gathered data only during weekdays and business hours. Future studies may choose to measure referral performance on Saturdays and evenings as well.

APPENDICES

APPENDIX A

THE INSTRUMENT: REFERRAL QUESTIONS

First Floor

Referring to a professional librarian

- R1.1 I'm having difficulty finding information on the political theorists and theories of the early 20th century. Is there someone who can help me find some information on this? [Referral to Larry Benson]
- R1.2 I've looked on ERIC and Social Science Index but need to do a more extensive search in preparation for a Master's thesis in geography. Isn't there some kind of in-depth search service you have? [CARS search, Larry Benson]

Referring to another floor

- R1.3 I'm considering a trip to Europe this summer. I found your maps, but do you have any travel guides that would tell me more about the area? [Travel guides on 4th floor]
- R1.4 I have to do a report on this American psychologist, Richard Patrick Vaughan, and the teacher said the information was here, but I can't find him in the International Encyclopedia of Psychology, Psychoanalysis, and Neurology, or Corsini's Encyclopedia of Psychology, or International Encyclopedia of Social Sciences. Can you tell me where to look? [3rd floor, American Men and Women of Science: Social and Behavioral Sciences]

Referring to an outside collection

- R1.5 I need to know about the mental health laws in California (like what are the requirements to have a person committed against his will). Where do I look for them? [Law library]

R1.6 I've already looked at the Occupational Outlook Handbook, but do you have anything that explains nursing more carefully? [LRC, Kimball Tower]

Referring to Interlibrary Loan

R1.7 I can't find this book in the card catalog or Byline, can you tell me how I might be able to borrow it?--Absent Mandate: the Politics of Discontent in Canada by D. Clarke . . . et al. Toronto, Canada: Gage, 1984. [ILL]

R1.8 I found some references to articles in the Calcutta Journal of Political Science from Political Science Abstracts. I can't find that journal listed on the microfiche or BYLINE and I'd really like those articles. Is there any way I can get hold of it? [ILL]

Second Floor

Referring to a professional librarian

R2.1 I need to do an online search on comparative effectiveness of different schizophrenia medications for my Master's thesis. How do I do this? [Richard Jensen]

R2.2 I am a school librarian and need to get some recommendations of good basic science reference books to buy for my collection. [Referral to science reference librarian]

Referring to another floor

R2.3 I need some statistics on alcoholism in the U.S. [1st floor]

R2.4 I need some information on Linus Pauling, the scientist who thinks vitamin C will cure the common cold. [Biography reference--American Men and Women of Science]

Referring to an outside collection

- R2.5 I want to mount the head of the next deer I shoot, but the books I have found in your book stacks are all very old. Do you have something more recent? [Bean Museum has more recent books on taxidermy]
- R2.6 Where can I view a videotape on robotics engineering? [Crabtree LRC]

Referring to Interlibrary Loan

- R2.7 I need this article in Bulletin of the American Academy of the History of Dentistry 36:31-36 (1988) but I couldn't tell from the microfiche if you had it or not.
- R2.8 How can I get hold of a book you don't have? I'd like to get a copy of the second edition of Numerical Methods for Scientists and Engineers by R. W. Hamming. (New York: McGraw-Hill, 1973)

Third FloorReferring to a professional librarian

- R3.1 I need the name and address of a newspaper currently published in Cleeve, England, so I can place a genealogical ad. [Referral to professional librarian]
- R3.2 Can you give me an address to write to for information on this summer's National Old-Time Fiddlers' Contest in Weiser, Idaho? [Referral to professional librarian]

Referring to another floor

- R3.3 I need a copy of The History of the Church. [4th floor or Archives]
- R3.4 Where is CIJE? [1st floor. Current Index to Journals in Education].

Referring to an outside collection

- R3.5 I need current information on the IBM Corporation. [Business library in Tanner building].
- R3.6 I found this book on BYLINE but I cannot find it in the library. The book is Writing without Teachers by Peter Elbow. (Call number 808.042) Where can I find it? [McKay LRC]

Referring to Interlibrary Loan

- R3.7 We do not have this journal, Immunology Today. The librarian on level 2 said I could get it from another library. How do I do that?
- R3.8 BYLINE says The Twilight Zone: The Original Stories should be in the Sampler but that it is lost. Is there some way I could get a copy of it?

Fourth FloorReferring to a professional librarian

- R4.1 This book says "Do Not Circulate" but is there any way I could take it out just for overnight? (The title of the book is Fireside and Devotional Speeches, 1981-1983 (BX 8647 .B76)) [See Susan Fales to check out or Gary Gillum from Ancient Studies]
- R4.2 What is the Biblical Hebrew word for 'love' and how is it related etymologically to its New Testament Greek equivalent? [Referral to Gary Gillum]

Referring to another floor

- R4.3 Do you have a tape of a Devotional talk given by President Benson? [2nd floor LRC]
- R4.4 I have found your books on Spanish history, but where can I find books on political science in Spanish? [1st floor]

Referring to an outside collection

- R4.5 Do you have a picture of Christ being baptized that I can use in my Relief Society Lesson? [Ward library]
- R4.6 I got this call number, 974.721 H2t, from the GLC and I can't find it here. The title is History of Long Island: from its Discovery and Settlement to the Present Time. [Family History Library, SLC]

Referring to Interlibrary Loan

- R4.7 I'm looking for a book called Germany Must Perish by Theodore N. Kaufman, written in 1941, but I can't find it in the card catalog or on BYLINE. How can I get it?
- R4.8 Where would I find the book The Gospel According to

Pontius Pilate by James R. Mills? It's not in the card catalog or on Byline.

Fifth Floor

Referring to professional librarian

R5.1 I am beginning preliminary work on my master's thesis in English and need to find out which topics the BYU library has sufficient material on. [Professionals are charged with conducting thesis interview with graduate students.]

R5.2 I am looking for information on Mormon film makers. [Blaine considers this a professional question]

Referring to another floor

R5.3 I am looking for a review of a biography about C. S. Lewis. The title is Clive Staples Lewis: A Dramatic Life, by William Griffin. [Book review indexes are at General Reference.]

R5.4 I need some information on the philosophy of dance. [Dance is classified in GV on Level 1.]

Referring to an outside collection

R5.5 I need about 20 copies of some music that I can use with my BYU Ward choir. [The Music Performance Library in the Harris Fine Arts Center has performance scores.]

R5.6 I have to prepare lesson plans for teaching English literature for my student teaching and I need some recent high school English textbooks. [McKay LRC has a collection of recent textbooks.]

Referring to Interlibrary Loan

R5.7 I have been looking for an article from Vol. 7 of the journal Critique (PN 3503 .C7), but I can never find it on the shelf. How can I get a copy of the article?

R5.8 I'm trying to get a book by Barry Hannah, but the library doesn't seem to have any. How can I get a copy? (Possible titles Geronimo Rex and Nightwatchmen. The library has ordered Ray but has not received it yet.)

APPENDIX B
PROXY INSTRUCTIONS

The library is presently evaluating the quality of the reference service provided at the reference desks. An important part of this evaluation is to determine the correctness and completeness of the answers given, and the ability to negotiate and refer skillfully. While we are not attempting to evaluate the work of specific staff members, it is important that none of the reference desk staff know that they are being tested so they will not change their usual behavior.

During the time period of March 3-22, you will be given approximately 12 questions to ask at each of the assigned five reference desks at specified times in the HBLL. Immediately following each reference transaction, please fill out the Proxy Question Report to report the results. Do not wait to fill out the forms or you might forget important details. It is important that these forms be filled out with care and deliberation.

The questions you have been assigned are coded so that each question is asked at the appropriate reference desk:

A 1.1-1.12	
R 1.1-1.8	Social Science Reference Desk, Level 1
N 1.1-1.5	
A 2.1-2.12	
R 2.1-2.8	Science Reference Desk, Level 2
N 2.1-2.5	
A 3.1-3.12	
R 3.1-3.8	General Reference Desk, Level 3
N 3.1-3.5	
A 4.1-4.12	
R 4.1-4.8	History Religion Reference Desk, Level 4
N 4.1-4.5	
A 5.1-5.12	
R 5.1-5.8	Humanities Reference Desk, Level 5
N 5.1-5.5	

Please ask at the assigned desk, even if you think it should be asked elsewhere.

We have attached each question onto a Proxy Question Report form. Please do not detach these.

1. Before asking each question, review the Proxy Question Report form. Be certain you understand the types of questions asked on the form so you will be able to answer them correctly.
2. Be sure you fully understand the question you ask so if the SRA/DA asks you for further clarification you can provide an intelligent response. Do not suggest types of sources or places where the answer may be obtained: let the SRA/DA make the suggestions. The answer to the question is provided to you so you may respond intelligently, and the answer should not be used to prompt the SRA/DA.
3. We have endeavored to provide a rationale for why you are asking for the information in each question, but if there is not a specific purpose specified, indicate that you need the information for a class assignment or to write a paper.
4. Try to act as normal and natural as possible. Do not allow the SRA/DA to see the paper with the question on it or the report form. You might find it useful to write the question or take a few notes from it on a piece of paper so you can show it to the SRA/DA, should you be asked. This could help you with call numbers, spelling, etc. Fill out your report form away from the reference desk area.
5. Do not argue or be persistent in trying to obtain an answer. Take the answer given you even if it is incorrect. If an answer cannot be obtained, do not prompt or help the SRA/DA with clues or with suggestions.
6. If the SRA/DA tells you to find an answer on your own rather than giving a correct answer, negotiation, or referral, consider that as an incorrect answer. Do not go back and ask for more help.
7. If you are asked to come back later when someone more knowledgeable can help you, consider that as a referral to a professional and do not return. If the SRA/DA offers to take you to speak directly with the professional librarian, make an excuse that you cannot take the time just now and say that you will come back later. Also, if the SRA/DA consults with the professional without you, count that as a referral to a professional.
8. Avoid visiting a reference desk if a professional is present. If the SRA/DA refers you to a professional librarian who happens to appear at the desk during the time of your query, or if you are taken to the professional, continue to play your part until you can explain to the professional that you are part of the reference evaluation study team, and record it as a referral to professional. Do not divulge this informa-

- tion in the presence of the SRA/DA. If you are referred from one Assistant to another, record that as a consultation, and ask the question of the other Assistant and fill out the Proxy Question Report on the basis of the answer given.
10. Do not score the professional librarian (SSs) in any way.
 11. If you are referred to a specific librarian (by name), at another floor, department, or outside source, score it as a referral to a professional. If you are told to see "the librarian at McKay LRC," though, score this as a referral to an outside source.
 12. If the SRA/DA on the third floor gives you an Inter-library Loan request form to fill out, count that as a referral to ILL and take the form with you explaining that you'll return it later. The other floors do not have this form and will refer you either to ILL or the third floor desk for forms. Either one will count as a referral to ILL.
 13. If the SRA/DA is able to answer your referral question without a referral, fill out the Proxy Question Report based on the answer, reference techniques, and sources he used. It will not count as a referral, but will be included in the other studies that are using the same report sheet.
 14. When you have asked all of your questions and completed your reports, return the questions and report forms intact to your supervisor. Thank you very much for your time, effort, and willingness to help us improve our service.

Instructions for question 12-18 on Proxy Question Report:

1. Questions 12 and 13 are subjective questions. Respond according to your own perceptions.
2. Question 14: Open questions are broad and allow for dialog. Typically, they begin with What, Why, How, etc.
3. Question 15: 'Verify' means verbal indication by the SRA/DA that the question has been understood, i.e., clarifying, paraphrasing, or by other methods.
4. Question 16: SRA/DA verbally encourages follow-up to answer given by asking questions such as: "Does this answer your question?" or by making statements such as: "If you need more information, let me know." or "Come back if you need more help."
5. Question 17 refers to the question asked in Step 2 of the escalator questions.
6. Question 18 refers to the question asked in Step 3 of the escalator questions.

APPENDIX C

Question Type: _____ Accuracy
(Check all _____ Referral
that apply) _____ Negotiation

PROXY QUESTION REPORT

Question # _____

1. Your name _____
2. Question asked on (Circle one): Level 1 2 3 4 5
3. Question was asked when? Day _____ Time _____
4. To whom did you ask the question? _____ SRA (1) _____ DA (2)
_____ SS (3) _____ Unknown (4)
5. Reference Assistant or DA answered the question:
 - a) _____ (1) Without assistance.
 - b) _____ (2) After consultation with:
_____ SRA _____ DA _____ SS
_____ other _____ unknown
6. Check the following statement that BEST describes what you saw as you approached the reference desk for help:
 - a) _____ (1) The SRA or DA was free to help me.
 - b) _____ (2) The SRA or DA was preoccupied with a library project, and I had to get their attention.
 - c) _____ (3) The SRA or DA was helping another patron at the desk, and I had to wait _____ minutes for help.
 - d) _____ (4) The SRA or DA was away from the reference desk, and I had to wait _____ minutes for help.
 - e) _____ (5) Other (specify): _____
7. Indicate the way in which the reference assistant dealt with your question.
 - a) _____ (1) Answered it without consulting reference sources, i.e., books, computers, files, etc.

APPENDIX D

DATA LIST

Data list /
Questgrp 1 (a)
Floorask 2
Questno 3
Questype 5
Staftitl 6
Treatmnt 7
ReftoSS 8
ToFloor 9
ToOut 10
ToILL 11
ToOther 12
Approp 13.

Variable labels
Questgrp "Question group"
Floorask "Floor asked on"
Questno "Question number"
Questype "Referral question type"
Staftitl "Staff title"
Treatmnt "Question treatment"
ReftoSS "Referral to professional"
ToFloor "Referral to other floor/department"
ToOut "Referral to outside collection"
ToILL "Referral to Interlibrary Loan"
ToOther "Referral to other"
Approp "Appropriate referral".

Value labels
Questgrp 'A' 'Accuracy' 'R' 'Referral' 'N' 'Negotiation' /
Questype 1 'Professional' 2 'Floor or dept' 3 'Outside
collection'
4 'Interlibrary loan' 0 'Does not apply' /
Staftitl 1 'SRA' 2 'DA' 3 'SS' 4 'Unknown' /
Treatmnt 1 'Answered incorrectly' 2 'No answer, no referral' 3
'Referred' /
ReftoSS ToFloor ToOut ToILL ToOther 1 'Correct or appropriate' 2
'Incorrect'
0 'Does not apply' /
Approp 1 'Appropriate' 2 'Inappropriate'.

Begin data.

R11 113100001
R12 113100001
R13 213010001
R14 213010001
R15 313001001
R16 311000002
R17 413000101
R18 413000101
R21 113100001
R22 113100001
R23 213010001
R24 213010001
R25 313001001
R26 313020002
R27 412000002
R28 413000101
R33 223010001
R34 213010001
R35 313001001
R36 313001001
R38 421000002
R42 113100001
R43 213010001
R44 213010001
R45 313001001
R46 313001001
R47 413000101
R48 411020002
R51 113100001
R52 113100001
R53 212000002
R54 213010001
R55 313100001
R56 313001001
R57 411000002
R58 413000101
A13 013100001
A28 013100001
A35 023010001
A36 013010001
A45 013010001
A46 013100001
A49 013000011
N31 013010001
N51 013100001
N35 013010001

End data.

Save outfile = 'A:REFERRAL.SYS'.

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