

An Evaluation of Reference Desk Service

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Recent studies of academic and public libraries across the country are revealing serious deficiencies in the quality of reference service—only 55 percent of the factual and bibliographic questions asked are answered correctly. A five-part management study was conducted of the Brigham Young University Library reference service to determine the quality of service provided by the student and department assistants, the adequacy of the training program, and the effectiveness of the system of referring patrons to subject specialist librarians. The major problems revealed include the following: (1) the student and department assistants feel isolated from the subject specialists; (2) the referral system works poorly; (3) the training program is inconsistent and often ineffective; and most seriously (4) the student assistants answered only 36 percent of the unobtrusive test questions correctly.



The objective of a library is not merely to warehouse information, but to help patrons find the information they desire.

Though all aspects of librarianship are concerned with this goal, it is at the reference desk that the process of determining the patron's need, formulating a research strategy to fill that need, and providing accurate and complete information to the patron is finally tested. Providing professional-quality reference service is a complex process, requiring extensive subject expertise, knowledge of library collections and systems, and years of practical experience.

Studies of academic and public libraries across the country reveal serious deficiencies in the quality of their reference service. Recent studies show that only 55 percent of the factual and bibliographic questions asked are answered correctly.¹ In addition, librarians often provide only partially correct information, demonstrate a lack of familiarity with basic reference

sources, allow an "internal clock" to limit the amount of time they devote to patron queries, negotiate patron needs poorly, and neglect to refer patrons to someone more informed.²

In the Lee Library (main library) at Brigham Young University, the five subject-reference departments were reorganized in 1986, creating a patron service system staffed by one full-time paraprofessional department assistant and several student reference assistants for each department. The purpose of the reorganization was to make "better use" of professional librarian subject specialists by removing them from staffing reference desks so they could place greater emphasis on collection development and faculty liaison responsibilities. The reorganization was based on a widely held premise that nonprofessionals could answer most of the questions brought to the reference desks and could be properly trained to refer the questions too difficult for them.³ The subject specialists became involved in

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offering patron service at the reference desks only when the student reference assistants determined that they needed additional subject expertise.

The questions of how effective nonprofessionals are in providing reference service and what training is necessary have become increasingly important. Martin Courtois and Lori Goetsch observe, "Properly trained nonprofessionals with an understanding of reference service and a clearcut referral relationship may enhance the job roles of both nonprofessionals and professionals."⁴ Richard Johnson indicates that the primary ingredient necessary for learning is motivation.⁵ Beth Woodward and Sharon Van Der Laan contend that although motivation is not a problem for graduate students in library science, it can be for other nonprofessionals working on a reference desk.⁶ Both kinds of student assistants work in the Lee Library.

Recognizing the potential for a decrease in reference service effectiveness and perceiving the problem nationally, the library administration appointed a committee to evaluate the quality of service received by library patrons at the reference desks. For comparison it would have been desirable to evaluate the reference service before the change, but this was not possible. Most evaluative studies in the library literature have focused on how professional reference librarians performed. With reference desk duty being shifted totally to nonprofessionals in the Lee Library, this situation provided an easy opportunity to evaluate nonprofessional service at the reference desk.

A five-part management study was designed to assess the quality of the reference service provided by the student reference assistants in the Lee Library after a full semester under the new system.⁷ The study focused on determining the accuracy of information patrons received, the level of skill student reference assistants used in negotiating patron needs, the ability of student reference assistants to refer patrons to professional librarians, and the degree of satisfaction patrons felt about the service they had received. The five parts, conducted during the winter semester of 1987, included the following:

- *Patron Survey:* After completing a reference interview, approximately 100 patrons were approached out of view of the student reference assistants and asked to complete a short questionnaire. Questionnaires were administered at all reference desks during all hours of reference operation over a two-week period.
 - *Reference Assistant Survey:* All student reference assistants employed at the five reference desks in the library were asked to complete a questionnaire regarding their background, work environment, reference training, adequacy of support from department assistant and subject specialists, and job responsibilities.
 - *Department Assistant Survey:* The five paraprofessional department assistants, who work at the reference desks and supervise the student assistants, were asked questions about their education and experience, job responsibilities, work environment, effectiveness of reference service and training, and the role of subject specialists in providing subject expertise.
 - *Subject Specialist Survey:* The eighteen professional reference librarians/subject specialists responded to questions about their perception of the quality of reference desk service given by student reference assistants and department assistants, the reference training provided, and their own involvement in reference service.
 - *Unobtrusive Question Test:* Fifteen library employees acted as proxy patrons and asked five preresearched questions, one at each of the five reference desks. The proxies then completed a form describing and evaluating the service they received from each student assistant. The questions, typical of those asked at the various reference desks, required substantive factual or bibliographic information as an answer. Fifteen of the seventy-five questions were designed to test question-negotiation skills. A representative selection of the questions used for unobtrusive testing is found in appendix A.
- This report integrates the responses of

these five questionnaires, showing comparisons whenever possible, under the following major categories: (1) quality of reference service, (2) training, (3) role of professional librarians in reference desk service, and (4) conclusion and recommendations.

QUALITY OF REFERENCE SERVICE

Because the quality of the reference service performed at the reference desks by the student reference assistants was the prime focus of the evaluation, the study attempted to obtain pertinent information about this service from patrons, patron proxies, paraprofessional department assistants, professional subject specialists, and student reference assistants themselves.

Reference Interview

The study addressed the four components of the reference interview:

1. Question negotiation between student reference assistants and patrons
2. Search strategies used by student reference assistants in providing or attempting to fulfill the patron requests
3. Correctness of the answer provided
4. Referral, when required, to another, more appropriate, source to obtain a satisfactory answer (i.e., other student reference assistants, the department assistants, the subject specialists, another library department, or a nonlibrary resource)

In addition, patrons, proxies, department assistants, and subject specialists rated their perception of the quality of the reference service provided by the student reference assistants.

Question Negotiation. The most basic element of effective reference service is for the student reference assistant to know as precisely as possible what the patron needs. Of the seventy-five questions in the Unobtrusive Question Test, fifty-two needed or could have benefited from negotiation with the patron to determine the exact need. The student reference assistants negotiated only thirty-one questions (60 percent).

"Although the student reference assistants recognized and responded well to explicit requests for negotiation, they did not perform as well on the implicit requests."

Fifteen of the fifty-two questions, called "escalator questions," required the student reference assistants to negotiate the patrons' specific needs, because the proxy patrons asked the questions in very broad terms. The student reference assistants negotiated all five of the explicit questions (e.g., "I need information on Eskimos"), but only five of ten (50 percent) of the implicit ones (e.g., "Where is your poetry?"). The questions with the implicit need for negotiation attempted to account for the numerous patrons who appear to know exactly what they want, but must have their real need negotiated before they can be given effective service. Although the student reference assistants recognized and responded well to explicit requests for negotiation, they did not perform as well on the implicit requests. This suggests that the problem may not be an inability to negotiate with patrons, but either a failure to recognize more subtle requests or an unwillingness to question patrons who seem knowledgeable and informed and state their requests in such specific, positive terms.

The department assistants and subject specialists rated the student reference assistants' ability to negotiate questions 3.6 (1 = very weak; 5 = very strong) and 2.8 respectively (see figure 1). Perhaps the department assistants themselves, even though they work more closely with the student reference assistants, are not as aware of what good negotiation is as the subject specialists.

Search Strategies. Once a patron's needs have been clarified, the student reference assistants must then develop a strategy for providing the appropriate information. Essentially this process involves selecting appropriate reference books or other information sources and using them effec-

Skill or Trait	Subject	Department
	Specialists	Assistants
a. Subject knowledge	3.0*	4.0
b. Knowledge of reference books	3.2	3.4
c. Question negotiation ability	2.8	3.6
d. Developing search strategies	2.4	3.6
Composite Rating	2.9	3.7
*1=Very weak; 5=Very strong		

FIGURE 1

Effectiveness of Student Reference Assistants in Reference Skills as Perceived by Other Department Staff

Search Process Used	Total Ques- tions	Answer				
		Correct/ Complete	Referred	Correct/ Incomp.	Wrong	None
Answered w/o consult- ing a source	14	0	2	3	4	5
Used one source only	18	12		5	0	1
Used several sources	17	5	1	3	2	6
Gave patron source w/explanation	10	5		4	0	1
Gave patron source w/o explanation	<u>16</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>6</u>	<u>4</u>
Totals	75	24	3	19	12	17

FIGURE 2

Effectiveness of Search Process Used in Answering Questions

tively to give as full an answer as possible to the patron query.

The data in figure 2 show some problems in the search strategies used by the student reference assistants to find requested information. Superficially, it appears that the greatest number of questions were answered either correctly or correctly but incompletely by using one

source, and the fewest number of questions were answered by not consulting any source. However, this result reflects the type of questions used in the test more than it does the value of using a certain number of sources in finding an answer. More likely, the data show that when student reference assistants find an answer, correct or incorrect, from the first source

they consult, they search no further. The fact that nineteen questions (25 percent) were only partially answered suggests that student reference assistants may be relying too heavily on too few sources, may not understand the question fully enough to provide all the information required for a complete answer, or do not have or take enough time.

The above data also show that when patrons are referred to specific sources to find the information on their own, a common practice at most reference desks, they find more correct answers when the student reference assistant shows them how to use the reference source rather than just pointing it out.

Correctness of Answers. The ultimate test of the student reference assistants' effectiveness is the number of correct answers they provide to patron queries. In the unobtrusive question test (see figure 3), student reference assistants demonstrated serious deficiencies in their ability to provide complete and correct information. Only 36 percent of the seventy-five questions asked by proxy patrons resulted in completely correct answers. Another 25 percent received partially correct or incomplete results from their query. And even with the inclusion of the correct-but-incomplete answers, the result is still only 61 percent with any degree of correctness. As noted earlier, the profession at large seriously questions the acceptability of correct responses to 55 percent or less of the questions asked at the reference desk.

The perception of other reference department staff of the student reference assistants' effectiveness in those factors essential for good reference service also supports the view that student reference assistants do not perform at a desirable or acceptable level (see figure 1).

Referrals. Another important component the study attempted to measure was the performance of the student reference assistants in referring patron requests to someone more qualified than themselves when necessary. Crucial to this process is the ability of the student reference assistants to recognize when they need to refer and their willingness to do so. The study addressed three aspects of referral: The

unobtrusive question study provided information about what student reference assistants did when unable to answer questions; the student reference assistant questionnaire asked about the availability of the professional librarians for referrals when needed; and the subject specialist questionnaire asked how many referrals the professional librarians had received.

In the unobtrusive question test, the student reference assistants could not provide a suitable answer to seventeen of the seventy-five questions asked (see figure 3). Of these, they referred eleven questions (65 percent), but did not refer seven unanswered questions (35 percent). Student reference assistants may recognize their own limitation, but over a third of the time they do not seek more informed help for patrons.

It appears that when student reference assistants find some information, even if it is incorrect or incomplete, they terminate the interview. Their lack of subject expertise in many of the disciplines they are required to service may leave them unable to assess accurately the appropriateness of the information found. A satisfactory referral program needs to consider more than just the student reference assistants' ability to find information. It is not just *some* information that is important, but *correct and complete* information.

Compounding the problem of assuring an acceptable referral situation are the student reference assistants' perceptions about the availability of the professional librarians when they were needed for referrals. Although the working relationship between the professional librarians and the student reference assistants and department assistants is perceived to be quite positive (see figure 6), over half the student reference assistants commented on the lack of subject specialist availability when they needed to make referrals. The subject specialists also estimated receiving less than two referrals per hour for all the hours they worked and less than one per hour during assigned backup hours during a typical midsemester week. They also reported receiving fewer than one appointment negotiated at the reference desk per week.

Result	No.	Percent
<u>Positive Results</u>		
Correct and complete	24	32
Referred appropriately	<u>3</u>	<u>4</u>
Total	27	36
<u>Negative Results</u>		
Correct but incomplete	19	25
Incorrect	12	16
Unable to answer	<u>17</u>	<u>23</u>
Total	48	64

FIGURE 3
Correctness of Answers Given Proxies

It is impossible to determine from the data available whether the low number of referrals was caused by the lack of availability of the subject specialists or the failure of the student reference assistants to refer as often as needed. But the data do indicate a problem of too few referrals. Because a satisfactory referral system is essential to the reference system used in the library, steps must be taken to create a more workable referral environment to overcome the deficiencies discovered through this study.

"It is important for the library to establish objective standards or expectations for student reference assistants that can be applied uniformly in evaluating their performance and in developing corrective measures to improve that performance."

Overall Effectiveness

The subject specialists and department assistants gave very similar ratings (see figure 4) to the student reference assistants on approximately twelve factors im-

portant to their effectiveness as reference assistants. The greatest discrepancy between the subject specialists' and the department assistants' ratings is in the ability of the student reference assistants to give effective service in the department, which was the second lowest rating by the subject specialists (2.7) and the highest rating by the department assistants (4.2).

Clearly, there is not universal agreement on the standards upon which these perceptions are based. It is important for the library to establish objective standards or expectations for student reference assistants that can be applied uniformly in evaluating their performance and in developing corrective measures to improve that performance.

Work Environment

Another important factor affecting the quality of reference service is the work environment. The student reference assistant survey specifically addressed this issue. Responses from the patron and proxy surveys also give additional insight.

Work Load

The student reference assistants were asked to evaluate their work loads at the reference desks in relation to the flow of patrons requiring service. The patrons

Skill or Trait	Subject	Department
	Specialists	Assistants
a. Subject knowledge	*3.0	4.0
b. Knowledge of reference books	3.2	3.4
c. Question negotiation ability	2.8	3.6
d. Developing search strategies	2.4	3.6
e. Question referral ability	3.0	4.0
f. Awareness of library policies	3.6	4.0
g. Relying on one another for help	3.5	4.0
h. Enforcing library policies	3.1	3.8
i. Ability to help patrons understand library systems	3.4	4.0
j. Overall ability to give effective service in department	2.7	4.2
k. Overall ability to give effective service in your subject areas	2.8	n/a
l. Backing up other student reference assistants	n/a	4.0
Composite Rating	2.8	3.8

*1=Very weak; 5=Very strong

FIGURE 4

Effectiveness of Student Reference Assistants as Perceived by Other Department Staff

and proxy patrons reported on the availability of the student reference assistants to offer assistance at the desk. Figure 5 compares reported availability with the student reference assistants' evaluation of their work load. Eight-six percent of the time the proxies received help either immediately or within three minutes. Eighty-five percent of the time the patrons received help within three minutes. These results correspond with the student reference assistants' perception that the demand for patron services, at 3.3, is neither too light nor too heavy. In general, the student reference assistants felt comfortable

with their work load and their ability to perform both their reference and other departmental responsibilities in the time they had available.

However, some student reference assistants commented that at times patron service suffers because student reference assistants do not take sufficient time to help one patron when another one is waiting. Often they are not able to return to the first patron for follow-up. Consequently, the appearance of service is good, but in reality the student reference assistants know that more complete service could have been provided had there been sufficient

Availability		Work Load			
SRA was	Reported by		Duty	Rating	
	Proxy	Patron	Patron service	Other duties	
					3.3*
					2.8
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	
Free to help	31	41	53	55	
Helping another patron**	26	34	29	30	
Working on project**	8	11	n/a	n/a	
Away from desk	8	11	9	9	
Other	<u>2</u>	<u>3</u>	<u>6</u>	<u>6</u>	
Total	75	100	97	100	

*1=Too light; 5=Too heavy

** Less than 3 minutes wait

FIGURE 5
Evaluation of Availability and Work Load

Working relationship with	As rated by	
	SRAs	DAs
Department chair	4.4*	5.0
Subject specialists	4.2	4.6
Department assistants	4.4	n/a**
Student reference assistants	4.4#	4.6
Being treated fairly	4.5	4.8

#with other SRAs in department
**only one DA in each department
*1=Very negative; 5=Very positive

FIGURE 6
Working Relationships

time or additional desk personnel.

Emotional Climate

Another factor affecting the quality of the reference service is the emotional climate under which the staff work (i.e., their relationships with others in the de-

partment, feeling appreciated, and feeling important to the department). Both the student reference assistants and the department assistants ranked the emotional climate as quite important (see figure 6) considering their relationship to the various groups of people they work with and

their feeling of being treated fairly in work assignments as "positive" or "very positive." Significantly, however, the lowest ranked relationship is that between the student reference assistants and the subject specialists, suggesting that steps need to be taken to provide more training and periodic social interaction for the student reference assistants with the professional librarians. An improved relationship may improve the referral of patron queries to the subject specialists for professional help.

STUDENT REFERENCE ASSISTANT TRAINING

The major reason for studying the effectiveness of the reference service provided by nonprofessional student reference assistants and department assistants was to determine the quality of reference service and to suggest changes; therefore, the study addressed the vital issue of training. This becomes a critical issue when students are hired to perform what the library profession considers a professional responsibility, requiring substantial education, subject expertise, and a broad background.

The study focused on preemployment preparation and background for the job, training topics found most helpful for initial and in-service training, and training methods and practices.

Preemployment Background

Most undergraduate student reference assistants were studying toward degrees in the subject areas of the library where they worked. However, some graduate student reference assistants were in the master's of library science program and did not always have an undergraduate degree related to their work assignment. The supervisors generally felt that these students' library training and motivation compensated for possible subject knowledge deficiencies. In addition to their academic major, the student reference assistants also felt that almost any academic study, work, or personal relations experience was valuable in preparing them to deal effectively with library patrons. The success of the student reference assistants

is strongly influenced by the relevance of their preemployment preparation to the job.

Initial Training

The surveys of all three types of reference personnel asked about topics and priorities for initial training, in-service training, and methods of instruction. Although not all survey questionnaires asked the same questions in the same way, many comparisons were possible.

Initial Training Topics. Because it is important for student reference assistants to be properly grounded early in their reference experience, the study focused on topics for initial training—those presented during the first month of employment. The responses (see figure 7) probably were prompted by the anxiety every new employee feels when assigned to the reference desk for the first time. Before they assist their first patron they want to know initial job expectations and routines, how to treat the patron, how much service to provide, and what sources will answer the questions.

While the student reference assistants were mainly concerned with training that would improve their competency at the reference desk, the department assistants, who oversee the department routines and the students, placed more emphasis on the supervisory and management functions.

The subject specialists emphasized the importance of knowing the desk routines, policies and procedures, and effective question negotiation. Their comments also showed a strong concern with giving good service and the need to be trained adequately to provide that service for the long term.

In response to a question about "complex" search strategies (not on the student reference assistant survey), the subject specialists and the department assistants disagreed about having the student reference assistants trained to handle the more difficult research problems. The subject specialists preferred to have the hard questions referred to them rather than train the assistants. Because the specialists are often not available, the department as-

Topic	DAs	SRA's	Ave.	SSs
Reference Sources at Desk	5.0*	4.9	4.95	4.4
Patron Service Priorities	5.0	4.7	4.85	n/a
Desk Routines	4.6	4.9	4.75	<u>4.8</u>
Reference Sources on Index Tables	4.6	4.9	4.75	4.4
Question Negotiation Skills	4.8	4.6	4.70	<u>4.8</u>
Search Strategies for answering quest.	4.4	4.9	4.65	3.8
Computer Systems	4.6	4.7	4.65	4.4
Job Expectations	4.8	4.4	4.60	n/a
Tour(s) of the floor	4.6	4.5	4.55	n/a
Library Policies and Procedures	4.6	4.3	4.45	<u>4.3</u>
Reference Sources in Reference Stacks	4.0	4.5	4.25	4.2
Card Catalog and Card Indexes	4.2	4.2	4.20	4.4
Department Organization	4.8	3.4	4.10	4.4
Subject Collections in Stacks	3.4	3.9	3.65	n/a
Tour(s) of Other Areas	3.8	3.4	3.60	<u>2.9</u>
Reference Sources on Other Floors	3.4	3.7	3.55	n/a
Composite Rating	4.4	4.4		

*1=Not important; 5=Very important

Underlined numbers under SSs correlate with other columns.

FIGURE 7

Compared Rankings of Training Topic Importance for Initial (First-Month) Training of Student Reference Assistants

sistants felt the students should be trained in the complex strategies themselves, or at least have an opportunity to review the strategies used by the professional to solve a problem so that when a similar question is asked in the future and the professional is not available, the student reference assistants can give proper service.

Initial Training Effectiveness. All reference departments train the student reference assistants when they are hired, but the library has no organized program for such

training. Each department develops its own training program to meet its perceived needs. However, the student reference assistants and department assistants differed in their perception of the effectiveness of this training. Significant improvements can and should be made in the training program.

In spite of the lower ratings on several factors (see figure 8), the student reference assistants felt (and the department assistants agreed) that they are adequately prepared to function effectively at the refer-

Training Factors	DAs	SRAs	Difference
Prepared adequately to function	4.2*	4.1	.1
Covered areas they needed to know	4.4	4.2	.2
Provided at appropriate time	4.2	3.9	.3
Side-by-side, on-the-job instruction	4.4	3.9	.5
Structured and clearly organized	4.4	3.8	.6
Supported with useful exercises	4.2	3.5	.7
Effective general library orientation	4.0	3.2	.8
Presented in understandable way	<u>4.4</u>	<u>3.5</u>	<u>.9</u>
Composite Rating:	4.3	3.8	.5

*1=Poor; 5=Excellent

FIGURE 8
Effectiveness of Initial Month's Training Programs

ence desk. Their having, so far as they know, functioned satisfactorily thus far with whatever training they received probably justifies their feeling that they have been prepared adequately. Another possible explanation is that neither of these groups may be fully aware of the competency expected by the subject specialist for their disciplines (see figure 4). This perception is supported by the 36 percent correctness of the answers given by the student reference assistants in the unobtrusive question test (see figure 2).

A number of student reference assistants commented on the need for the professional librarians to become more involved in the training programs so the level of effectiveness can be raised. Such involvement would require a greater time commitment by the subject specialists in preparing training materials and interacting with the student reference assistants than is currently being done, but it is essential if student reference assistants are to provide effective reference service.

In-service Training Methods. Weekly training meetings were the most often used in-service training method (mentioned by all respondents) and received a relatively high effectiveness ranking (see figure 9). All the other training methods

(except for memos, notices, and one-on-one instruction) are probably used sometime during the weekly meetings. If the group sessions involve the subject specialists who show-and-tell, review search strategies, and provide follow-up with exercises for practical application, then the staff meeting could be the vehicle for implementing the methods deemed most important.

The department assistants and the student reference assistants agreed that the most useful method of in-service training is the one-on-one, side-by-side personal instruction. They also agreed on the importance of the subject specialists being involved in that method of training and giving them instruction in research strategies.

One representative comment from a student reference assistant showed how strongly they felt about such a training regimen:

Subject librarians should try to have more dialogue with student workers—this would create a better working relationship, and both would learn more about the other's work.

Student reference assistants also recommended the use of exercises or problems that give them hands-on experience:

Training Methods	Times Used	Dept. Asst.	Student Assist.	Aver.
One-on-one personal instruction	27**	5.0*	4.5	4.75
Weekly reference staff meeting	33	3.6	4.1	3.90
Instruction in research strategies	27	3.8	4.0	3.90
Instruction from subject specialists	31	3.8	3.8	3.80
Worksheet exercises or problems	25	4.0	3.6	3.80
Show-and-tell of reference sources	28	3.8	3.7	3.75
Subject bibliography handouts	26	3.8	3.5	3.65
Posted memos or notices	27	3.5	3.3	3.40
Orientation visits to other levels	21	3.3	3.5	3.40
Guest speakers from other areas	18	<u>3.3</u>	<u>3.4</u>	<u>3.35</u>
Composite Ratings:		3.8	3.7	3.74
**33 total respondents		*1=Not useful; 5=Very useful		

FIGURE 9
In-service Training Methods Used and Their Usefulness

Provide a written training manual with library policies, as well as specific sources and strategies for our subject areas. The manual should include exercises that give hands-on experience.

The show-and-tell approach was considered fairly effective, but it would be more so if used in conjunction with practical exercises, more graphics, and better written explanations of the search strategies that relate to the title and concepts presented.

Methods involving less personal interaction—posted memos, notices, and handouts—were not considered as effective. The two groups also agreed that information about other levels of the library is not a high priority. However, the lack of adequate referrals noted in the unobtrusive question test suggests that student reference assistants may not be fully aware of the importance of being informed about the resources and services available on other floors.

The data and comments on training presented above indicate that the most effective methods seem to be those that make it possible for the new employee to interact one-on-one with experienced personnel and have follow-up problems or exercises to get them involved with the sources and

strategies. However, there is no substitute for on-the-desk experience. As one student reference assistant remarked: "Experience and time are the two best ways of learning the reference desk, provided that one is trying to improve all the time."

Many of the statements made by the student reference assistants indicated a strong desire to have their desk experience include more involvement with the subject specialists so their training could be enhanced. They suggested an apprenticeship environment where they could benefit from the experience and the expertise of the professionals.

"The decision to remove professional librarians from assigned hours at the reference desks and to replace them with student reference assistants was very controversial."

Most departments in the library have a large number of disciplines for a short-term student employee to master. Unfortunately, student reference assistants may graduate by the time they achieve the level

Perceived Value	Yes	No	% Yes	% No
Monitor patron demands	15	3	83%	17%
Keep abreast of new reference tools	13	5	72%	28%
Train/monitor reference assistants	16	2	89%	11%
Strengthen esprit de corps	12	6	67%	33%
Strengthen ties to academic department	8	8	50%	50%
Receive more referrals from desk	12	6	67%	33%
Improve overall reference service	13	5	72%	28%

FIGURE 10

Rating of Values of Professional Librarians Working Assigned Reference Desk Hours

of competency that would permit them to provide excellent service. They sometimes become frustrated by the lack of adequate training and professional support they feel is necessary for them to be satisfied with the service they provide.

PROFESSIONAL LIBRARIAN REFERENCE DESK SERVICE ROLE

The decision to remove professional librarians from assigned hours at the reference desks and to replace them with student reference assistants was very controversial. The study surveyed all nineteen librarians involved in reference work to obtain the following information:

1. Their attitudes toward assigned desk hours
2. Their attitudes toward reference service as a professional responsibility
3. The role of assigned reference desk hours in maintaining and improving their professional competence
4. The role of assigned reference desk hours in maintaining and improving reference service in the library

The subject specialists overwhelmingly (see figure 10) felt that having professional librarians work assigned hours at the desk would have direct and substantial impact on improved overall reference service. The data also show that monitoring patron demands, keeping abreast of new reference tools, training and monitoring refer-

ence assistants, strengthening esprit de corps, and receiving more referrals from the desk would also be improved with professionals working assigned desk hours.

The subject specialists themselves can obviously provide a higher quality reference service at the desk than nonprofessionals because of their expertise and experience. Yet working at the desk to train and monitor student reference assistants was the highest rated benefit the subject specialists perceived from assigned desk hours. As one observed, "Not working side by side with student assistants denies them the benefit of my experience." Certainly, increasing their contact with the department assistants and student reference assistants would enable them to engage in ongoing training and to act as role models for the other staff, preparing them to function more effectively during the hours they are alone on the desk and helping to relieve the frustration that results from the present lack of interaction.

But the subject specialists also felt that their own reference expertise and capability suffered from lack of use. Seventy-two percent felt working at the reference desk would help them keep abreast of new reference tools and maintain facility with other tools, and 83 percent felt it would help them monitor patron demands. One said, "I lose track of lesser-used sources and have less feeling for what's really go-

No. of Librarians	Years of Reference Experience	Average Suggested Desk Hours/Week
7	1-9	2.2
7	10-19	7.5
4	20 or more	8.9

FIGURE 11

Subject Specialist Perception of the Benefit of Assigned Desk Hours and Recommended Hours Based on Years of Reference Experience

No. of Librarians	Years of Professional Experience	Average Suggested Desk Hours/Week
2	1-9	2.5
12	10-19	5.4
4	20 or more	10.1

FIGURE 12

Subject Specialist Perception of the Benefit of Assigned Desk Hours and Recommended Hours Based on Years of Professional Experience

ing on—patron needs, etc.” In addition to seeing their skills slip away, several subject specialists observed their job satisfaction deteriorating because they felt the central mission of the library—assisting patrons in filling their information needs—was declining while the subject specialists perform other assigned responsibilities.

Some of the subject specialists said they go out to work at the desk from time to time for stimulation and a “breath of fresh air.” They feel the decision to remove the professional librarians from the reference desks was made without regard to the unique abilities of many of these librarians, their feelings of job satisfaction in a reference librarian role, their lifetime commitment to patron service, and their many years of experience.

However, not all subject specialists agreed with having professionals assigned desk duty. The variables that defined the two groups, according to the data, were length of time as a reference librarian and length of time as a profes-

sional librarian. In general, those with more experience as reference librarians and those with more years in the profession were the strongest in favor of assigned desk hours.

Figure 11 shows the average number of assigned hours recommended based on years of reference experience. Figure 12 shows the same information based on years as a professional librarian. Those recommending fewer desk hours have significantly less reference experience and are newer in the library profession.

The subject specialists reported that working desk hours helps them keep up in all the subjects in their reference area, maintain their awareness of patron demands on library collections they are responsible for building, assess the effectiveness of and need for library instruction of patrons, and train student reference assistants and department assistants. These are all important factors because all subject specialists are expected to act as a backup resource at the desk during assigned hours for all subjects, not just for

their own areas of expertise. Subject specialists also view reference service as an important component in fulfilling their library use instruction and collection development responsibilities. In general, then, the subject specialists recommend a return to assigned desk hours to help keep themselves fully professional.

CONCLUSION AND RECOMMENDATIONS

This study has shown that removing professional librarians from the reference desks and relying solely on student and paraprofessional assistants has created serious problems with the reference service in the Lee Library of Brigham Young University; the student reference assistants and department assistants felt isolated from the professionals who have the requisite knowledge and skills. The referral of patrons to the subject specialists worked poorly. The training given reference staff was inconsistent and sometimes ineffective. And most of all, the student reference assistants answered correctly and completely only 36 percent of the questions asked of them in an unobtrusive test.

Recommendations

The problems with reference service discovered in this study are related to three major areas where action needs to be taken:

1. Setting standards of performance for reference service provided at the reference desks. Standards or job expectations need

to be established for question negotiation, search strategies, referrals, the amount of time to spend with patrons, and the percentage of correct answers that will be acceptable. Standards are also needed for the quantity and quality of professional time devoted to desk and desk backup responsibilities.

2. Improving the training program for all personnel involved in reference service. A uniform, consistent, and soundly structured training program emphasizing an apprenticeship relationship between student reference assistants and professional subject specialists should be developed and implemented.

3. Involving the subject specialists more heavily in reference responsibilities. The professional librarians, with their expertise and experience, should provide the foundation for improving reference service both directly and indirectly. They should be required to make a greater commitment to reference service in their job descriptions; they need to be more readily accessible to patrons and other reference personnel; and they need to be more involved in training other reference personnel in their areas of expertise.

With a constantly changing short-term reference staff, it is very difficult to create a solid foundation on which to build an improved reference service. Only an ongoing evaluation system can assure that standards and job expectations are maintained.

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6. Beth S. Woodward and Sharon J. Van Der Laan, "Training Professionals for Reference Service," *The Reference Librarian* no.16:233-54 (Winter 1986).
7. As defined by Peter Herson, a management study, as opposed to a research study, uses techniques that provide indicators rather than strictly valid statistical data that can be broadly generalized. Management studies, however, provide valuable information for making informed management decisions.
8. The apparent discrepancy in tables 11 and 12 for librarians with 20 or more years of experience: three librarians indicated they had 20 or more years of both reference and professional librarian experience, one librarian indicated more than 20 years of professional library experience and less than 20 years of reference experience, and one librarian indicated more than 20 years of reference experience but less than 20 year's experience as a professional librarian.

APPENDIX A: REPRESENTATIVE SELECTION OF THE QUESTIONS USED FOR UNOBTRUSIVE TESTING

1. I need to find the address and director of the U.S. Information Agency.
2. Where can I find out which colleges offer associate degrees in engineering?
3. I'd like to find a short statement that explains passive aggressive personality.
4. I have this citation: *Proc Natl Acad Sci* 72(9):3453+ on salmonella. Where is it?
5. How do you use *Science Citation Index* to find an article on phospholipid metabolism?
6. What is another name for folic acid and what is its chemical formula?
7. I need to know where the Ogoki River is located.
8. I want to read about Larry King, the radio talk-show host. I need information about his life and I need a picture of him.
9. Where are your books on animation?
10. I've been looking all day for the 1986 volume of the *Middle East Journal*. It's not in the book stacks or on the sorting shelves. Is there any place else I can check for it?
11. I need brief biographical information on important people in Italian history.
12. I need the address of the Lee County (Alabama) Historical Society.
13. I need to know how many people in the world speak Spanish.
14. For my art history class I need to find out what the Ash Can School of painting is and who some of the artists who belonged to it are.
15. When did they start rating films with "G," "PG," "R," and "X," and what is the official name of this system?

Examples of Escalator Questions

The correctness of answers given to these questions was determined by whether or not the desk assistant negotiated adequately to arrive at the "true" question (step 3).

1. Step 1: Where are your education encyclopedias?
Step 2: I need information on test scores.
Step 3: I want to compare the ACT and SAT test scores.
2. Step 1: My teacher told me to look in the *PDR* to get some information on codeine. Where can I find it?
Step 2: I need to know if it is habit forming.
Step 3: I take Tylenol with codeine and want to know if I should be worried about the codeine in it.
3. Step 1: Where can I find *Time* and *Newsweek* magazines?
Step 2: I need articles from the last few months.
Step 3: I need information on the fifth amendment stand of Oliver North.

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