	Date : 08/06/2007
	Are Librarians Missing a Continuing Education Opportunity? An International Comparison of Virtual Reference Services **Paula Rumbaugh, MLS** Product Manager, OCLC, Dublin, OH USA **Lawrence Olszewski, Ph.D.** Director, OCLC Library, Dublin, OH USA
Meeting:	**151 Reference and Information Services**
Simultaneous Interpretation:	No

Abstract
Since virtual reference technology now makes it possible to capture patron-librarian interchanges, reference work can be made available for later evaluation and study. In an attempt to determine the efficacy of using the work of reference librarians for training, we compiled 527 email transactions from the QuestionPoint service, that were handled during a typical week in April, 2006 by 23 libraries in 10 countries. Transactions were coded by language, type of institution, question and answer type, subject, and turn-around times. They were then analyzed for courteousness, completeness, follow-up, and other qualitative factors, as well as for any discernible cultural differences. We conclude that analysis of transactions can be used to measure effective service and therefore can be a training tool to educate staff on applicable resources and improve the quality of the strategies used to answer questions.

INTRODUCTION
The use of virtual reference is becoming more and more prevalent in libraries throughout the world, yet studies of the use of transactions from virtual reference interchanges for review and training in non-U.S. countries have not appeared widely in the literature.

This study is one of the first known studies to examine this aspect from a multinational point of view for both academic and public libraries, and perhaps the first anywhere that considers virtual reference use in Mexico, Belgium and Slovenia.

LITERATURE REVIEW
We confined our literature search to empirical and case studies conducted in the 10 countries under examination here in publications indexed in *Library Literature* and *Library and Information Science Abstracts* since 2000.

Australia. Porter's (2003) discussion of 30 transcripts from a chat reference service aimed at off-campus nursing students at La Trobe University found that document delivery type questions comprised 30% of the questions asked. Lee's (2004) study of 47 email and chat reference transactions each at Murdoch University measured, among other criteria, turnaround time in answering email (mean delay of 6 hours) and question and answer types (email questions tended to have a higher proportion of administrative questions than chat and required fewer techniques of the reference interview). Sullivan (2004) analyzed 96 question and answer pairs from the Bayside Library Ask a Librarian service in Victoria and found that

47% of the reference questions were classed as research queries. Davis and Scholfield's (2004) report on a collaborative arrangement between an Australian and a Scottish library for 24/7 coverage found that such an agreement cut down on the turnaround time of answering email inquiries but found procedural and administrative inquiries hard to deal with.

France. DiPietro and Calenge (2005) and Bazin (2006) both discuss the Guichet du Savoir, an online information service offered by the Lyon Municipal Library but make no comparisons to other libraries. Nguyen (2006) talks about virtual reference from a theoretical perspective and thus eschews mention of specific virtual library services.

Germany. Simon (2006) analyzes how Chinese and German students use email information.

The Netherlands. Doek (2004) talks about the chat service of UBA (one of the libraries analyzed here).

South Africa. Darries (2004) found that among the 26 academic libraries surveyed, the majority of libraries provided electronic reference service via e-mail and the library web site, but they were characterized by low usage.

Sweden. Jonsby (2000) talks about the Ask the Library service in 19 public libraries and found that: the time limit of three days was right as most inquiries were answered in the same day; school students are the largest user group; literature tops the field of inquiries (37%); and the time it takes to answer an inquiry is often longer than it would have been if the user had been present in the library.

United Kingdom. Davies' (2001) study of four small rural libraries that experimented with replacing reference books with exclusive virtual access found that going online for answers to simple questions was too much hassle. Beard et al.'s (2003) survey of 30 users of a virtual email reference service at Bournemouth University found that two-thirds of the questions asked were subject related. Cloughley (2004) analyzed the results of ten reference questions sent to three US and two UK free digital reference services and found that the average response time varied from 15 minutes to 67 hours, correct answers were given at only two of the services, and most did not provide sources. Chowdhury and Margariti (2004) found that among five libraries in Scotland, the actual turnaround time for answering email questions was faster than was stated on their web pages and that a great majority of inquiries were "mechanical" questions on how to use IT resources rather than specific subject requests.

METHODOLOGY
Data Collection. We compiled a file of email transactions for 23 non-U.S. QuestionPoint libraries (10 countries) for the week of April 3, 2006. The week was chosen because it was one that had no conflicts with national or religious holidays in any of the countries, though as we found out, some libraries were closed for other reasons. We selected at random 25 questions that were asked during that week for each library; if a library had fewer than 25 questions for that week, we continued to the next week and the next until we had 25. A total of 527 questions were analyzed; the number is smaller than the total 575 universe because duplicates were discarded and because the 25-question threshold was not reached at some institutions during the month of April. Instead of limiting to a single library type, we decided to include public, academic, and national libraries to ensure the broadest geographic coverage possible.

To guarantee privacy, all user identification was stripped from the transactions.

Question and Answer Coding. Each transaction was coded by several categories.
- Language. We coded each transaction according to the language of the question, not the answer (which occasionally used a different language, either in the source or in the librarian's response). A total of nine languages were used.
- Type of institution. Of the 23 institutions, 18 are academic, 4 are public and 1 is national. For statistical purposes, the data for the national library were rolled into those for public libraries.
- Question Type and Answer Type. See Table 1.

- Subject classification. Subjects were broken down into the broadest levels of both the Library of Congress Classification and the Dewey Decimal Classification. Subject codes were assigned only to Subject and specific item (Bib) questions (and occasionally Access) since they were the only ones involving subject queries; a total of 321 questions were coded by subject.
- Turn-around times. The time (in hours) between question and first response was recorded.

Quality Coding. All transactions were also coded for "quality," which comprised Courteousness, Completeness*, Follow-up, Effective Use of Software, Response from Patron, Need-by Fulfillment, Service Level Fulfillment, URL Citations, and Print Citations. Table 2 lists the criteria for each category and code. After entering all coding into an Excel spreadsheet, pivot tables were created to compare various quality measures for possible correlations and to find any significant differences between library type and among countries.

Table 1. *Question and Answer Type Codes*

Question Type	Code	Explanation
Access	A	Policy or how-to questions
Title search	Bib	Specific title or holdings questions
Subject	S	Information on a subject, regardless of time to research
No question	N	No real question or inappropriate
Answer Type	**Code**	**Explanation**
Confirm	C	E.g., confirm ILL request or book return
Clarification	CL	Librarian requests clarification
Fact	F	Factual answer, either within the response or as an attachment
Instructions	I	How to do something or how to follow policy
Pathfinder/Bibliography	P	Includes specific titles or URLs to refer to with links when appropriate
Refer elsewhere	R	Direct to another library or person or place
No answer	NA	No additional guidance or no answer given

Table 2. *Quality Coding*

CATEGORY	ASSIGNMENT VALUE	CRITERIA
Courteousness	Very Courteous	Usually assigned when librarian remained courteous in the face of patron rudeness or inappropriateness. Also assigned when librarian seemed to go to some lengths to obtain the needed information
	Courteous	Began with some kind of greeting, remained pleasant, ended with a good-luck statement and/or invitation to return if they needed clarification or more information. If turnaround time was lengthy, apologized.
	Brusque	No greeting or apology for long turnaround time. All business; answer as brief as possible.
	Rude	No apology for extremely long turnaround time; a referral without explanation; any kind of criticism and turn-away.
Completeness	Comprehensive	Everything listed under Complete, plus patron referred to more than one citation, or more than one source consulted. Included step-by-step instructions when appropriate.
	Complete	Answered the question that was asked. Could have been referral to URL or print source or another specific person or site for additional information.
	Incomplete	Did not answer question; referred to someone else with no follow-up.
Follow-up	Yes or No	Sent another response (usually a few days later) to see if the information provided was useful.
Effective Use of Software	Referral	Using built-in referral option for a complete or better answer; allows monitoring and follow-up

	Scripts	Use of scripts to provide frequently used information
	Knowledge Base	Made use of information already researched and saved.
	Request for Clarification	Asked for additional information and monitored for a reply.
Response from Patron	Yes/No	Thank-you by reply e-mail or positive response via survey
Need-by Date Fulfillment	Yes/No/NA	*If* the webform included a field to indicate how soon the information was needed, was a response sent in time? Transactions for which no such field existed were coded as NA.
Web Site Service Level Met	Yes/No/NA	*If* the library's website information about the service indicated that an effort would be made to respond within a given time, was a response sent within that time frame?
URL Citations	Yes/No	When a URL *not* part of the institution website was cited or the patron was referred to the site for the needed information.
Print Citations	Yes/No	When a print source was cited or the patron was referred to the source.

*The authors acknowledge that despite the defined criteria, quality coding remained subjective to some extent. Consequently many of the comparisons and reported results combine value judgments: for example, Courteous and Very Courteous become simply Courteous.

RESULTS

After the answers were coded, the following patterns emerged.

- *Language*. English had by far the greatest number of users, mostly by dint of sheer numbers (six institutions are in English-only countries). Once those are eliminated, French comes out on top with the greatest number of questions asked. All but five institutions were represented by some English, including three French, two Dutch and two German. Eleven institutions handled at least two languages; one handled three. Two in South Africa are bilingual (Afrikaans/English). However, no primarily English-language institutions handled any language other than English! In fact, in those libraries where questions were asked in languages other than that of the library, English was the predominant language of choice, used twice in Belgium (where none were in Dutch, the country's official second language), 4 each in France and Germany, and 15 in the Netherlands. One question was asked in Polish in Germany—and answered in Polish! In three countries—Mexico, Slovenia, and Sweden—users asked no questions in other than their country's official language.
- *Question types*. Questions were almost evenly split among the Access (36%), Bib (26%), and Subject (36%) categories for academic institutions. See Tables 3 and 4 for full results. The high percentage of Subject questions in Sweden, France, and the Netherlands is probably due to the strong showing of public libraries in those countries.
- *Answer types*. The frequency of answer types depended upon the question type. For example, almost 60% of the Access questions were answered with an Instructional answer. See Table 3 for further results.

Table 3. *Results of Questions and Answers by Library Type*

Library Type	Question Type	Answer Type							Grand Total
		C	CL	F	I	N	P	R	
Academic	A	59	1	6	111	4		3	184
	BIB	37	2	7	47	5	5	12	115
	N					9			9
	S	4		11	54	9	25	11	114
Academic Total		**100**	**3**	**24**	**212**	**27**	**30**	**26**	**422**
Public	A	5			2				7
	BIB	9		3	4		2	2	20
	N					3			3
	S	1		20	3	6	41	4	75
Public		**15**		**23**	**9**	**9**	**43**	**6**	**105**

Total								
Grand Total		*115*	*3*	*47*	*221*	*36*	*73*	*32*	*527*

Table 4. *Percentage of Question Types by Country*

Country	Access	Bib	Subject
Australia	72%	17%	11%
Belgium	76%	12%	12%
France	13%	30%	56%
Germany	40%	27%	33%
Mexico			100%
Netherlands	41%	17%	42%
Slovenia	30%	22%	48%
South Africa	38%	26%	36%
Sweden		12%	88%
United Kingdom	36%	43%	21%

- *Subject classification*. Questions in the social sciences were the most widely asked in general and in academic libraries; literature and the arts the most common in publics. (The discrepancy is partially explained by the fact that television and movies, two very popular subjects in public libraries, are classified separately in DDC but together with literature in LC.) Either DDC classes 300s (social sciences) or 600s (technology) were the top two subject categories in every country except France. Similarly LC classifications for social sciences and technology were among the top two in every country except Belgium, France, Germany and the United Kingdom.
- *Turnaround time*. The times varied greatly, ranging from as short as a few minutes to several weeks!
- *Need-by and Service Level.* No public libraries in our sample had need-by fields on their web forms—or they were not completed—so we compared their turnaround times only with what was indicated on their web sites as a target. Academic institutions responded to patrons within the time the patron indicated they needed the information 87% of the time.

  However, 30% of the time neither public nor academic libraries responded within the time advertised on their websites. Belgian, Mexican, Australian, and German academic libraries scored the highest, at over 90% for responding within the advertised time.
- *Completeness of Answer.* Academic libraries gave either Complete or Comprehensive answers for 85% of their transactions. Public libraries did so 93% of the time. The Australian and Mexican institutions had the highest percentages of Complete among their answers, while our coding showed almost 30% of the responses of one Australian academic institution and one South African academic institution to be Comprehensive.
- *Courteousness.* In total, libraries responded to patrons 55% of the time in a courteous manner. Only 8% seemed actually rude. So a large percentage (37%) of libraries tend to the "all business" manner. Australia, from which we had only academic libraries, was the country with the highest percentage of what we judged to be courteous answers. Germany and France were a close second and third. Public libraries had a slightly higher percentage of courteous responses than did academic libraries—64% versus 52%.
- *Follow-up.* Follow up was evident in only a disappointing 15% of public library and 3% of academic library transactions. If this is an important factor in a patron's "willingness to return" (Nilsen, 2005), it would seem most libraries might want to review their practices to allow time and training to improve this aspect of their service.

Table 5. *Follow-up*

Institution Type	N	Y	Grand Total
Academic	46		46
	25		25
	43	3	46
	11		11
	40	6	46
	23		23
	118	4	122
	94	1	95
Academic Total	**400**	**14**	**414**
Public	40	10	50
	10	2	12
	22	3	25
	15	1	16
Public Total	**87**	**16**	**103**
Grand Total	**487**	**30**	**517**

- ▪ ***Effective Use of Software.*** Although the software has many features to help facilitate productiveness, we identified four as having particular bearing on our study: use of knowledge base, referrals, clarification requests, and use of scripts. By numbers alone, the scripting feature was used the most and the clarification request the least.
- ▪ ***Response from Patron.*** We looked for two activities: follow-up responses received from the patron and surveys attached to the transactions. Not all institutions have implemented the survey feature in QuestionPoint, so the very few survey responses received were rolled together with e-mailed responses. Even so, the number remains low—only 7% of all transactions. However, almost all had very positive comments!
- ▪ ***Citations.*** Since we were looking for both URL and print citations, we termed these pathfinders. Looking only at questions coded as Subject, we found that academic libraries provided pathfinders 22% of the time, while public libraries provided pathfinders 55% of the time!

DISCUSSION

Virtual reference, whether synchronous or asynchronous, has significant differences from face-to-face reference, but many similarities are also evident. The ALA RUSA *Guidelines for Behavioral Performance of Reference and Information Service Providers* (2004) notes that whether in-person or virtual, all reference exchanges are affected by the following behaviors, and the patrons' experiences will be affected by their reactions to these behaviors.

- Approachability
- Interest
- Listening or Inquiry
- Searching
- Follow-up

Assuming that the better the patron's experience is, the greater will be the likelihood of return, these behaviors are essential to the future health of the library. Yet, exercise of these behaviors, or what constitutes these behaviors in an asynchronous virtual setting, is not necessarily second nature. We wanted to find out if there were significant enough examples of good and bad communication and complete and incomplete answers, to be useful for service evaluation and librarian training. In addition, was it possible for librarians new to virtual reference to learn new communication techniques, new research strategies, and new sources of information from past transactions? The following discussion applies the RUSA Guidelines to help evaluate the quality of transactions to make some determination of their training efficacy.

A paper presented at the 2005 IFLA conference in Oslo that describes a Canadian study of face-to-face, e-mail, and chat reference touches on many of the same competencies in predicting patron "willingness to return" (Nilsen, 2005). Nilsen's findings were useful in formulating our discussion.

Approachability
Approachability may be measured to some extent by the library's website and how easy the question form is to find. However, good website design and ease of use were not considered training issues. Thus, for the purpose of this paper, approachability became a post-facto issue—a kind of *re*-approachability--and was judged by courteousness, promptness of an answer or acknowledgement, and follow-up.

When we took into account courteousness *and* meeting website service level times, we found that academics responded with courteousness in the timeframe allotted 61% of the time, and publics 62% of the time. However, there were many examples in several countries of turnaround times that were far longer than the time needed as indicated by the patron and/or the target service level promoted by the library's web site.

Please also see the later discussion on Follow-up.

Interest
In the e-mail virtual reference setting, interest can be measured by timeliness. Certainly if patrons have specified they need information by a certain date, and they receive no response until well beyond that date, especially if the response includes no apology or explanation for lateness, the impression the patrons take away is that the library/staff is not interested in them or their information needs.

Follow-up, which we discuss later in this section, as well as invitations to the patron to return or respond if the initial answer is not sufficient, is another way of showing interest. And sometimes, when the question seems unfathomable, beginning with a request for clarification demonstrates interest in what the patron is trying to ask. In fact, the Nilsen study (2005) found that three factors were the major reasons that patrons went away from the reference encounter without a willingness to return: lack of reference interviews, unmonitored referrals, and failure to follow-up.

Example of Courteousness and Interest

```
Patron:      I have an assignment due for [subject class] and I have spent most of
             the night looking for peer reviewed articles but can not seem to find
             any.  I checked the library databases but none seem to be peer
             reviewed.  Do you know any link that may help me to do my assignment to
             get references? My topic is [topic].  Thank you . . . hoping to hear
             from you soon.

Librarian:   I know that some of your peers are having the same issue, with the same
             topic.  It can be overwhelming trying to search through all the
             information available!  I've attached the link to the [school] help
             guide on finding scholarly, peer-reviewed, or refereed articles.  It
             gives a background as to what these types of articles are, and how to
             search for them . . . [considerable additional information and
             instructions]

             If you continue to have trouble locating relevant material, please
             don't hesitate to visit the Information Desk at your brach where a
             librarian would be happy to take you through a search face to face.

             Good luck!
```

As mentioned in the Approachability discussion, *usually* dates indicated by the patron were met by academic libraries (public libraries did not include a need-by field on their forms), but turnaround target times promoted on websites were actually not met 30% of the time.

Only a handful of transactions showed a request for clarification using the QuestionPoint feature. However, the following demonstrates how some librarians handle questions when they are not sure of the question. It's a kind of "tide-them-over" approach:

Example of answer in place of clarification

```
Patron:        I'm having difficulties using [database], I desperately need journals
               on coronary heart disease, im not very familiar with metalib, plz can u
               help??

Librarian:     I'm not sure exactly what problems you're having so if the following
               doesn't help, please either ring me on [number] or send a fresh email
               and I'll try and help further. . .

               First of all, do you know that there are helpsheets on the . . . web
               pages to help you use [database].  [Instructions follow, with
               suggestions on how to search for 'coronary heart disease']  It's worth
               mentioning that "coronary heart disease" brings up a lot of hits, so to
               make the information manageable you really need to narrow the search in
               some way.  [suggestions made]

               Hope this helps . . . if you'd like specialist help from the [name]
               team please email their group email address given above.
```

Listening

Nilsen's study (2005) showed that one of the three most significant reasons for failure to instill a willingness to return in patrons, was the lack of a reference interview. In asynchronous virtual reference, the interview must take place by collecting as much information as possible on the intake form or by e-mail exchanges to clarify the question. Listening, then, is manifested in a careful reading of the question and associated information or clarification response.

For questions or requests that are not straightforward, an initial interpretation is not always the correct one. We found a number of examples in which the patron was not native to the language and struggled to pose the question. Looking at the patron's status or learning level or sources he or she has already tried and applying that to one's understanding of the stated question provide a kind of e-mail listening. This is an example of what Hirko and Ross (2004) call "getting the question straight."   Careful "listening" can save time and add to a positive impression.

Searching

Virtual reference transactions may prove one of the best teaching tools for learning searching techniques and contributing to the patron's information literacy. Although we know that academic libraries typically instruct students in how to find the information they need and public libraries typically deliver the information itself, explanations on sources and how to search them are appropriate in either setting.

Virtual reference software now makes referral easier than ever, still allowing the original library to monitor and track progress. Part of "searching" is sometimes referring the question to a known expert or larger library or special institution. And sometimes the patrons themselves might be best served by referral to another person or place, if they can be dispatched with directions and instructions on how to proceed.

We found that almost every institution analyzed had good transactions demonstrating searching behavior. Generally, those coded as Comprehensive were judged to exhibit the best techniques and/or attempts to relay search information to the patron. However, there remain varying levels of demonstrated technique within institutions. For example, that a total of 13% of the librarian responses did not completely answer the question or give complete referral instructions indicates there is something to be learned about searching.

One of the authors' hypotheses was that studying transactions can reveal resources unknown to the learner, thus building up a repertoire of sources for future reference interactions. Combining the question- and answer-type coding with the quality coding, we found that public libraries provided "pathfinders" for a majority of the subject-related queries they received, certainly an opportunity for librarians to learn from one another.

Follow-up

The RUSA Guidelines recommend that librarians encourage patrons to return if the information is not sufficient. Because QuestionPoint allows for any number of responses to the patron, we flagged a transaction as including follow-up if the librarian sent any message to the patron after the conclusion of the exchange: this could have been just a note to check on the patron or it could have been additional information.

Disappointingly, only 6% of all transactions included any follow up (of course, follow-up is not always appropriate). Even monitored referrals were quite low. Given the number of referrals to other locations or sources and instructions on how to access or use a source, follow up would have been appropriate in far more cases. Our data showed that public libraries in total showed a far higher rate of follow-ups than did the academics.

Example of Failure to Follow-up

```
Patron:        Please could you assist me with the following: I have a book written by
               [faculty name].  On the back cover it states that he has written [many]
               books so far.  I have the titles of [several] of them; please provide
               me with the rest of the book titles.  The ones I have so far are:
               [list]  Please provide me with the rest of the titles.  I would
               appreciate it very much.

Librarian:     [Referred to a subject expert.  Then librarian closed the question
               instead of leaving it in the Pending folder so it could be monitored.]

Patron:        [17 days later.]  I've had no response!!!

Librarian:     [4 days later] I can unfortunately not do anything else for you
               [emphasis mine].  I could trace no other books by the same author . . .
```

Effective Use of Software

Scripts and knowledge bases can be especially helpful in facilitating efficient workflow. Instead of typing courteous greetings or detailed instructions over and over again—and feeling perhaps less courteous with each typing—these tools can be written or edited to convey that sense of approachability while improving efficiency.

The software offers a referral feature, whereby questions can be referred to other partner libraries or to faculty or other subject-matter experts. Use of this feature not only facilitates referral (and notes such in the transaction history), but it also allows the library to monitor the referral to see if it has been tended to. Scripts were used the most liberally, in 23% of the transactions. (Since scripts are not identified in the transaction history as such, use of them was a bit of a guess. There may have been far more that we did not recognize as such.)

Disappointingly, the referral feature was used in a mere 4% of the cases. It seemed to the authors that use of the feature would have been appropriate in many more of the exchanges; instead, as an answer, patrons themselves were referred to another person or place.

Copying previously answered questions from the local or global knowledge base provided by the software and requesting clarification from the patron were each used only a handful of times. Use of a knowledge base can save much duplicate research or even typing—and unlike personal scripts, they are available for other librarians to use, as well. And use of the clarification option allows the librarian to track the pending response in a special folder.

Example of Using Knowledge Base

```
Patron:        I am not very computer literate, and have tried to use the online
               campus for this request, to no avail.
               Please help.  I would like to request a recommended article.
               [article citation]

Librarian:     Copied Answer from KB record [number].

Librarian:     Dear [name],
               Below are the instructins to retrieve electronic journal articles from
               the  . . . library catalogue.  Please follow these step by step.

               [A long series of instructions follows.]
```

```
                    Good luck!
```

Satisfaction

Although we attempted to measure patron satisfaction through patron responses, these were few and far between. Voluntary responses from patrons are typically low, so one cannot make too much of this aspect of our data without further analysis. It is perhaps significant that of those who did respond (38), 71% were for transactions we had coded Courteous or Very Courteous. But we found no other significant positive correlation with expressed satisfaction.

CONCLUSION

Our study showed that asynchronous virtual reference transactions are a source of invaluable information about the quality of the reference service being provided. It is assumed that, in this as in other training situations, there are as many lessons to be learned from less-than-perfect work as from exemplary work. For example, a study of completed transactions for approachability using the factors discussed above can indeed reveal areas of weakness and, thus, areas that need further training.

In their book *Virtual Reference Training* (2004), Hirko and Ross describe the core competencies needed for virtual reference. Although their book is aimed at training for synchronous virtual reference, much of the knowledge, skills, and aptitudes they write about are appropriate here: professional satisfaction in virtual reference, communication skills, effective reference performance, internet and database search skills, and information literacy. Study of completed transactions can provide do's and don'ts in this important librarian-patron arena.

Hirko and Ross suggest questions to ask to help evaluate transcripts during training/learning sessions. The following are appropriate for asynchronous virtual reference:
- What are your overall impressions of the service that the patron received?
- Which of the transactions are the most/least effective and why?
- What positive feedback would you give to the staff and what improvements would you suggest?
- Were there opportunities for information literacy instruction?

To this list, we would add these questions:
- Did the patron receive a response in an acceptable period of time?
- If you were the patron, would you use this service method again?
- How did the librarian make use of available software features to facilitate the exchange?

Our analysis confirmed the long-held belief in U.S. reference work that academic libraries tend to teach how to look for information, while public libraries tend to provide the information. Very few differences were found that we believed could be attributed to cultural differences. Our appraisal of courteousness versus abruptness and rudeness did show a tendency in two of the countries toward extreme politeness and a tendency in three others toward brusqueness, what we might call "all business." Further study is warranted to determine if cultural norms for library staff have an effect on the patron's willingness-to-return.

Works Cited

Bazin, Patrick. "The Guichet du Savoir: A service for knowledge sharing and a driving force for change." *Library Management* 27 (5): 423-429: 2006.

Chowdhury, Gobinda and Simone Margariti. "Digital reference services: A snapshot of the current practices in Scottish libraries." *Library Review* 53 (1): 50-60; 2004.

Cloughley, Karen. "Digital reference services: How do the library-based services compare with the expert services?" *Library Review* 53 (1): 17-23; 2004.

Darries, Fatima. "Internet access and use in reference services in higher education institutions in South Africa." *South African Journal of Libraries and Information Science* 70 (2): 72-85; 2004.

Davies, Margaret. "Creating a virtual reference library: Experiences at Suffolk Libraries and Heritage." *Program* 35 (1): 43-56; 2001 January.

Davis, Keith and Sally Scholfield. "'Beyond the virtual shore': An Australian digital reference initiative with a global dimension." *Library Review* 53 (1): 61-65; 2004.

DiPietro, Christelle and Bertrand Calenge. "Le Guichet du savoir: Répondre aux demandes de contenus." *Bulletin des Bibliothèques de France* 50 (4): 38-43; 2005.

Doek, Alice. "Chatten mit de informatiebalie: een-op-een." *Informatie Professional* 8 (7/8): 18-20; 2004 July-August.

Guidelines for Behavioral Performance of Reference and Information Service Providers. RUSA. June, 2004.
http://www.ala.org/ala/rusa/rusaprotools/referenceguide/guidelinesbehavioral.htm

Hirko, Buff and Mary Bucher Ross. *Virtual Reference Training: The Complete Guide to Providing Anytime Anywhere Answers.* Chicago: American Library Association, 2004.

Jonsby, Eva. "The virtual librarian answers your questions." *Scandinavian Public Library Quarterly* 33 (3): 20-22; 2000.

Lee, Jan J. "Do virtual reference librarians dream of digital reference questions? A qualitative and quantitative analysis of email and chat reference." *Australasian Public Libraries and Information Service* 35 (2): 95-110; 2004 June.

Nguyen, Claire. "Les services de référence virtuels en bibliothèque universitaire: Enjeux, perspectives, débats." *Bulletin des Bibliothèques de France* 51 (3): 38-43; 2006.

Nilsen, Kirsti. "Virtual versus face-to-face reference: Comparing users' perspectives on visits to physical and virtual reference desks in public and academic libraries." World Library and Information Congress: 71st IFLA General Conference and Council, August 14, 2005, Oslo, Norway.
http://www.ifla.org/IV/ifla71/papers/027e-Nilsen.pdf

Porter, Susan. "Chat: From the desk of a subject librarian." *Reference Services Review*. 31 (1): 57-67; 2003.

Simon, Ingeborg. "Weltoffen—kundenorientiert—professionell?" *BuB Forum Bibliothek und Information* 58 (3): 245-249; 2006 March.

Sullivan, Doreen. "Characteristics of e-mail reference services in selected public libraries, Victoria, Australia." *Reference Librarian* (85): 51-80; 2004.