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The Chat Reference Interview: Seeking Evidence Based on RUSA's Guidelines A Case Study at Texas A&M University Libraries

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Abstract

Purpose The purpose of this paper is to compare established reference interview guidelines (RUSA) with actual reference provider behaviors in remote reference transactions. The data is used to argue that specific reference interview "best practice standards" should be developed for remote access reference services.
Design/methodology/approach Remote reference transactions were examined for evidence of adherence, or not, to the RUSA guidelines and behaviors. The transcripts were also coded for showing evidence, or not, of user satisfaction.
Findings Data from 1,435 virtual reference transcripts shows that in 82% of the reference sessions the user found the information needed. Analysis also shows that librarian compliance with RUSA-recommended reference interview behaviors, especially in the areas of Listening/Inquiring and Searching is frequently poor – possibly due to time constraints.
Research limitations/implication This study adds to the empirically-based knowledge on the reference interview process and virtual reference services.
Practical implication Reference policies and procedures can be modified to accommodate patrons based on type of reference access. Education and training of reference staff can be customized to meet patron needs.
Originality/value This paper develops a methodology for evaluating the reference interview in a virtual reference transaction and suggests modification of the RUSA reference interview guidelines for remote access reference services.

Keywords Reference interview**, v**irtual reference, reference services, customer satisfaction
Paper type Research paper

Introduction

The reference interview is an important part of the reference transaction. Indeed, the Reference and User Services Association (RUSA) guidelines state that it is "at the heart of the reference transaction and is crucial to the success of the process." (Guidelines, 2007). The reference interview is the communication between library user and librarian that is designed to determine or verify the precise information needs of the user. It is most often initiated by the librarian and frequently reveals a question that is different from the one originally stated (Reitz). The advent of remote reference services, such as e-mail, real time chat reference and instant messaging (IM), provides both advantages (i.e. convenience) and challenges to the reference transaction. The lack of visual clues and cues can be barriers to effective communication. One would therefore, expect the reference interview to be essential in live chat.

RUSA guidelines for the behavioral performance for reference providers provide an established and accepted standard that can be used to evaluate a reference interaction (Guidelines, 2007). Texas A&M University Libraries operates a successful, high volume, vendor-based chat service that provides an excellent resource for studying the reference process.

In this study, transcripts of chat reference transactions at Texas A&M University Libraries are evaluated for evidence of compliance with RUSA behavioral guidelines. With particular focus on the reference interview, along with evidence of patron-indicated satisfaction, RUSA recommended behaviors are compared with actual provider behaviors.

Reference Services at Texas A&M University Libraries

Texas A&M University Libraries, a member of the Association of Research Libraries, serves approximately 48,000 enrolled students as well as faculty, staff, researchers and community users. Comprised of five branches, all located on the College Station, Texas campus, the libraries provide access to approximately 3.9 million volumes, 5.6 million microforms, 52,000 serials (print and electronic), 400,000 electronic books and over 600 databases. The largest of the five libraries is the Sterling C. Evans Library & Annex; the remaining four are: The West Campus Library (business), The Medical Sciences Library (MSL), the Cushing Memorial Library (university archives and special collections) and the Policy Science & Economics Library.

Each library manages its own reference desk. Much of the reference desk service in the Libraries is provided by paraprofessionals, with support from subject specialist librarians as needed. The five libraries operate a combined chat and e-mail reference service that is staffed by both paraprofessionals and librarians. Live chat service is offered 68 hours a week. Questions that come in at other times are processed as e-mail reference. In all cases, complicated or involved questions are transferred to subject specialist librarians.

As part of a library-wide reorganization in the summer of 2005, science & engineering reference merged with humanities and social sciences reference to form a single reference desk service in Evans library. In preparation for this merger, a series of employee training sessions, including sessions conducting an effective reference interview, were provided. These sessions were attended by most public service personnel, including librarians and paraprofessionals who provide chat reference services. Since then, continuous training has been provided at brown bag sessions in which chat-related issues are discussed and solutions to problems suggested. Many of these sessions focus around scenarios related to elements of the reference interview. As new librarians join the live chat service, individual training on the technology and process is

provided. At this time librarians are reminded of the importance and components of the reference interview.

History of Live Chat at Texas A&M University Libraries

In January 2004, nine Texas A&M University System schools launched a collaborative chat reference service. In December 2004, the project was evaluated for viability and user demand. The project had experienced a number of technical complications related to the chat software as well as issues with staffing, scheduling and training attributed to the consortia arrangement. At this time, Texas A&M University Libraries at College Station campus decided to offer a single service for the five College Station campus libraries only. This new service went live in February 2005.

A comprehensive marketing plan that targeted distance education students (MacDonald & van Duinkerken, 2005) and incoming freshman was developed and implemented in August 2005. With the implementation of a variety of promotional tactics (MacDonald, van Duinkerken, & Stephens, 2008), use of the new chat service increased dramatically. September to December 2005 showed a 120% increase over the over the same time in the previous year. February to August 2006 showed a 308% increase over the same time period in 2005.

The chat service was evaluated again in the summer of 2007. A task force was convened to look at patterns of use, types of questions received, referrals to subject specialists and overall use of the software technology. The task force found the tiered reference model effective and endorsed chat reference as an important component of user services in the Libraries.

Literature Review

A review of the literature did not find many studies that evaluated reference transcripts specifically in terms of the reference interview. A recent review of the chat reference literature (Luo, 2008) confirms this fact. In those studies where transcripts were analyzed, two evaluated transcripts against RUSA guidelines for behavioral performance of reference providers (Ronan, Reakes, & Ochoa, 2006; Zhuo, Love, Norwood, & Massia, 2006), while a few other evaluated transcripts against other criteria, frequently with elements similar to RUSA's guidelines (Bolander, Connaway, & Radford, 2006; Lee, 2004; Jeffrey Pomerantz, Luo, & McClure, 2006; Ryan, Daugherty, & Mauldin, 2006). Some of these studies also analyzed the types of questions asked in the chat environment, which has important implications for the reference interview and trends away from vendor based chat to free IM applications ((Lee, 2004; Ryan et al., 2006; Ward & Kern, 2006).

Investigators at Central Missouri University analyzed the chat transcripts from 100 sessions that took place over a 3 month period (Zhuo, Love, Norwood, & Massia, 2006). In their analysis, they determined that all the behaviors included in the guidelines were not present in the transcripts. Despite this fact they concluded that "100% of all reference responses were considered to be accurate and/or appropriate. Ninety percent were deemed clear and concise and directly addressed the client's inquiry."

In another study that evaluated chat transcripts against RUSA guidelines, investigators created a contrived setting in which they pretended to be patrons (Ronan, Reakes, & Ochoa, 2006). They accessed the chat services of 50 different libraries across the United States and asked the same scripted questions, which were designed to prompt a reference interview. The investigators made no attempt to evaluate the quality of responses or measure user satisfaction.

The focus of the research was to investigate whether or not RUSA guidelines were being utilized in virtual reference transactions. They found that while most librarians are "receptive and cordial during the online reference transactions," many do "not adhere to key sections of the guidelines that facilitate more effective reference interviewing."

Lee (2004) analyzed 47 chat sessions that occurred during a four month period at Murdoch University Library. He found that, on average, providers asked an average of 6.4 questions per chat session, of which 3.5 were part of the reference interview process, as opposed to social chit chat. He concluded that all chat sessions show some evidence of the reference interview.

Investigators in North Carolina (Pomerantz, Luo, & McClure, 2006) analyzed a sample of 428 chat sessions completed by the NCKnows Library Service, a state-wide collaborative chat reference service. Peer reviewer librarians critiqued a set of "anonymized transcripts" and evaluated them for quality and user satisfaction. While RUSA Guidelines were not mentioned in the methodology, quality was determined by evaluating behaviors such as courteousness, referrals, follow-up, establishing rapport and using open-ended questions. The investigators found strong evidence of user dissatisfaction in only 2.8% of the transactions and determined that "nearly 80% of questions in chat sessions were answered correctly, if not completely…"

Bolander, Conway and Radford (2006) reported on a sample 300 transcripts analyzed as part of an ongoing grant-funded research project. The reference interview is not mentioned specifically, but like Pomerantz & Luo and McClure (2006) they looked at behaviors that contribute to rapport. Interestingly, they looked at interpersonal skills and relational barriers of both the chat provider and the patrons. They found that providers used more rapport-building techniques and ad-libbed greetings than patrons.

Investigators at Louisiana State University analyzed 349 remote access reference transcripts (Ryan, Daugherty, & Mauldin, 2006). Focusing on customer service behaviors, the investigators discovered that the librarians did very well in both greeting and thanking the patron. They found a need for improvement in the librarians' use of personal language and the need to "keep the patron informed at all stages of the process."

Studies have shown that users prefer the chat medium for simple questions that can be answered immediately (Naylor, Stoffel, & Van Der Laan, 2008; Pomerantz & Luo, 2006). While many libraries are dropping vendor based chat services due to low volume and funding issues, many are converting to, or adding, free IM services (Radford & Kern, 2006; Ward & Kern, 2006). Some evidence suggests that IM might even revitalize the use of chat reference (Ward & Kern, 2006). Regardless of the medium, chat providers require best practice standards that can be integrated in this unique chat environment. Therefore, the purpose of this paper is to compare established reference interview guidelines (RUSA) with actual reference provider behaviors in successful remote reference transactions in order to identify behaviors that can be used to establish a "best practice standard" specifically for remote access reference service.

Methodology

For this study, the virtual reference transcripts from the fall 2006 semester were printed and examined separately by three investigators. Each investigator assigned each transcript to one of seven categories: reference, non-reference, disconnected, answered by e-mail, librarian disconnected, test between user and librarian, or resolved by a phone call. The investigators

discussed discrepancies between assigned categories and resolved these differences by consensus. See Table 1.

Table 1: Fall 2006 Virtual Reference Interactions

VR Transaction Categories	Totals
Reference	1,435
Non Reference	120
Patron Disconnected	147
Responded by Email	48
Librarian Disconnected	3
Test	6
Responded by Telephone	1

The focus of this study is the reference interview in the chat (synchronous, real time) environment, thus reference questions completed over the phone, or answered via e-mail were excluded from transcript analysis. The research team examined only the resulting 1,435 reference transactions that occurred within the chat environment.

RUSA guidelines for behavioral performance identify five basic components of a reference interaction: Approachability, Interest, Listening/Inquiring, Searching, and Follow-up. Within each of these categories, the guidelines describe behaviors that can be applied to any type of reference interaction, remote interactions and face-to-face interactions. This study only examines the behaviors that apply to any reference interactions and remote interactions.

Each investigator separately coded the reference transaction for evidence of adherence, or not, to the five main areas of RUSA's guidelines. For each RUSA behavior included in this study, a series of questions designed to determine evidence of compliance was posed. For example, Behavior 3.6: Uses open ended questioning technique. Questions posed: Please tell me more about your topic; how much information do you need? See Appendix for complete list of questions for each RUSA-recommended behavior. Based on the answers to these questions, each behavior was coded as yes (evidence of adherence) or no (no evidence of adherence) or NA. Due to the subjective nature of this study, no attempt was made to place a value on adherence (i.e. weak or strong, etc.); rather a simple yes/no was recorded.

In addition to coding the reference transaction for evidence of adherence, or not, to the RUSA guidelines and behaviors, the transcripts were also coded for showing evidence, or not, of user satisfaction. Evidence of satisfaction was determined, albeit subjectively, by the presence of positive patron comments, such as "this is exactly what I needed" and "that is it, that is what I was looking for." For each transcript, the adherence codes and satisfaction measure were recorded. Conflicts in coding were discussed until a consensus could be met. Totals were calculated for each behavior and recorded on a cumulative spreadsheet for further analysis.

Results

Each of the reference transcripts was examined for evidence of adherence to the five main areas of RUSA's guidelines, which include the reference interview. If more than 75% of the transcripts demonstrated evidence of a behavior, the Libraries' compliance with the RUSA guidelines was judged strong. Each transcript was also coded for user satisfaction, which was further examined in terms of adherence to RUSA's guidelines. Although it would be helpful to

use extracts from the anonymized reference transcripts to illustrate points made, for ethical reasons we cannot use them in this article.

Approachability

While not part of the reference interview per se, approachability does have an impact on the reference transaction as a whole and the interview process specifically. Approachability behaviors encourage patrons to feel comfortable about going to a reference librarian for assistance. In the chat environment this can mean placing contact information in prominent locations, both in the library and online, to make the service obvious and welcoming (Guideline 1.1). It can entail being ready to engage patrons (1.2) and using a system of triage (1.3.1) to acknowledge patrons who are waiting for assistance while the librarian is helping another patron (1.3). In order to communicate with remote patrons, the guidelines call for librarians to provide recognizable, jargon-free web links to all forms of reference services (1.8).

At Texas A&M University, when a live chat session is accepted, the system provides a welcoming scripted response "Howdy, I am reading your question and will be with you shortly." The term "howdy" is a local welcoming tradition. This greeting is important in the Texas A&M University community and helps build positive provider-patron rapport which ultimately impacts the reference interview process.

In this study, 97% of the calls received a response from the librarian in less than one minute. In the remaining calls, librarians were already helping a patron and could not pick up the second waiting patron faster. The fast response time demonstrates that the librarians are poised and ready to be engaged. Nineteen percent of the reference interactions occurred when the librarian was helping two or more users simultaneously. In these cases, 79% of the librarians acknowledged the new caller (1.3) despite the fact that the library does not have a policy for triaging.

Table 2: Approachability Behaviors

Behavior	No	Yes	NA
1.1 Presence	0	1,435	0
1.2 Poised/Ready	0	1,435	0
1.3 Acknowledge	57	216	1,162
1.3.1 Triage	273	0	1,162
1.8 Jargon-Free	21	1,389	25

If the virtual desk can't be found, or is not easily accessible to the patron, the patron cannot use the service. At Texas A&M University Libraries, after a successful *Ask Now* marketing campaign (MacDonald, van Duinkerken & Stephens, 2008), the chat reference service icon was given a very prominent location on the library homepage (guideline 1.1). In addition, links to the service are included on all the SFX pages, help pages, and library class and subject guides. Clicking on the chat icon takes the user to a web page where the chat service is explained and hours of operation are specified. The service is also advertised on signs in the libraries, in bibliographic instruction classes and student orientation classes. Live chat information is 99% jargon-free throughout the website links.

Interest

RUSA interest behaviors call for the librarian to demonstrate a commitment to providing effective information assistance. To achieve this goal in a face-to-face environment, the librarian should face the patron when speaking and listening (2.1) and focus all their attention on the patron's information need (2.2). In the chat environment, showing interest can be difficult. RUSA guidelines suggest maintaining word contact with the patrons (2.6) and, in an email environment, answering all enquiries in a timely manner (2.7). It is also important that reference policies and procedures be clearly accessible on the library web site. This helps patrons understand the types of questions they can ask in a chat setting and the types of answers the service provides in a given time frame (2.8).

Only live chat reference interactions were examined in this research, consequently there was no analysis of email questions or the time it took to answer them (2.7). Some aspects of the interest guidelines do not make sense in a strictly chat environment, while others are difficult to detect in the transcripts.

Facing the patron (2.1) is not possible in chat and making a judgment on whether or not the provider is focusing attention on the user (2.2) is subjective at best. The transcripts show evidence that students themselves are multi-tasking. Further research is needed to determine whether or not 2.1 and 2.2 of the RUSA guidelines are applicable to the chat reference environment.

Despite this question, there were some aspects of interest behavior which could be examined. Librarians showed evidence of maintaining word contact (2.6) in 98% of the transcripts. A set of pre-scripted messages are used to facilitate word contact during routine dialogue.

The one area where the chat reference transactions failed to comply with RUSA guidelines is in regard to policies and procedures (2.8). Although policies and procedures have been developed, they are not posted on the library web site. Patrons and librarians have no idea what type of question should be asked via the live chat service. Nothing is provided to users to illustrate the nature and scope of answers that are should be provided.

Table 3: Interest Behaviors

Behavior	No	Yes	NA
2.1 Faces	0	0	1,435
2.2 Focuses	0	0	1,435
2.6 Word Contact	26	1,384	25
2.7 Email Questions	0	0	1,435
2.8 Procedures/Policies	1,435	0	0

Listening/Inquiring

One can argue that the most important components of the reference interview are the listening and inquiring behaviors. RUSA guidelines state that the librarian must effectively listen as the patron states, in his own words, the information need (3.3). Once the patron has completed the initial reference inquiry, the librarian should identify the objectives of the research need (3.4) and clarify the meaning of any unfamiliar terminology (3.6). To clarify what the patron needs,

the librarian should rephrase the information need in his/her own words (3.5), while avoiding library jargon (3.6). The librarian can ask open-ended questions to encourage the patron to clarify their information need (3.7) and closed/clarifying questions to help develop the search strategy (3.8). While the librarian is asking questions, she/he needs to keep the patron at ease. To accomplish this, the librarian should interact with the patron in a receptive, cordial, and encouraging manner (3.1) and remain objective regarding the subject matter (3.9). The librarian must speak or write in a language appropriate to the unique nature of the reference transaction (3.2). In the remote environment, a librarian should use the reference interview or web forms to gather information without compromising user privacy (3.10)

Texas A & M University Library chat providers demonstrated mixed adherence to the recommended listening and inquiring behaviors. They demonstrated strong (98%) evidence of being cordial, receptive and encouraging to patrons (3.1). The remaining 2% showed evidence that the provider was engaged in simultaneous chats, leaving little time for verbal phrases of politeness. The chat reference providers were also strong in using appropriate tone (3.2) and encouraging the patron to state fully the question (3.3) with evidence for both at 98%. Most of the transactions (96%) were jargon free (3.5). When the initial information need was stated, 96% of the chat librarians showed evidence of objectivity (3.9); 100% respected the patron's privacy (3.10).

In the remaining listening and inquiring behaviors, compliance with behavior guidelines was noticeably weaker. In 71% of the chat sessions the librarians attempted to identify the goal of the research (3.4) while only 10% restated the question (3.5). Only 50% of the chat librarians asked open-ended questions (3.7) and just 57% refined the original question with closed-ended confirming questions (3.8).

Table 4: Listening/Inquiring Behaviors

Behavior	No	Yes	NA
3.1 Communication Manner	23	1,392	20
3.2 Tone of Voice	4	1,411	20
3.3 Full information	6	1,398	31
3.4 Research Goals	365	905	165
3.5 Rephrases Questions	1,109	197	129
3.6 Clarification	50	1,286	99
3.7 Open-Ended Questions	559	565	311
3.8 Closed Questions	483	641	311
3.9 Objectivity	27	1,374	34
3.10 Privacy	0	1,429	6

It is likely that the poor compliance to the RUSA guidelines for Listening/Inquiring is related to time. Of the 1,435 reference transactions, 805 patrons indicated that they were in a hurry to get the information they needed. In general, these hurried transactions lasted 20 minutes or less. In order to keep the reference transaction short, some of the RUSA behaviors needed to be disregarded.

Searching

Searching behaviors, while not as directly tied to the reference interview as listening and inquiring behaviors, are important to the perception of success. After identifying the search strategies the patron has already tried (4.1), the librarian needs to construct a knowledgeable, comprehensive search strategy (4.2) and, when appropriate, explain the steps (4.3) and how to use the sources (4.5), all within the patron's time frame (4.4). During the search process the librarian needs to work with patrons to choose the proper search terms (4.6). Once results are found the librarian should ask if additional information is needed (4.7) and offer referral to other sources (e.g. librarian, guide or database) when appropriate (4.8). Librarians should also offer search tips so that, when patrons have similar questions in the future, they will know how to find the answer (4.9). In the remote environment, librarians should use appropriate technology (co-browsing, scanning, faxing, etc.) to aid in the search process (4.11).

For these behaviors, Texas A&M chat providers also showed mixed compliance to the guidelines. While 88% of the librarians constructed a complete search strategy (4.2) and 89% explained the search strategy and results (4.3), in only 29% of the reference transactions did the librarians ask patrons what they had already done (4.1).

Where appropriate, 85% of the transactions showed strong evidence that the chat provider explained the selection of sources (4.5) and 77% offered search pointers (4.9). In all but 2% of the transactions, the chat librarian considered the patron's time constraint (4.4).
The librarian worked with the patron to narrow or broaden the research topic in just 43% of the transactions (4.6). Only 44% of the chat librarians asked if more help was needed (4.7) at the end of the search process. While the need to refer patrons to subject specialists can be a subjective and individualistic decision, 74% recognized when they needed to refer the patron to a more appropriate guide, database, library, librarian or other source (4.8). Only 41% of the transactions used technology such as, telephone, co-browsing or a fax machine to guide patrons through the search process (4.11). However, this research team cannot say for certain why certain technology like co-browsing was not used. We can say that of the total overall questions asked (1760) through the chat service 17% of the users came in on the Classic mode which meant that the user was unable to co-browse. In addition 5% can be attributed to technology failure when the user came in under the standby mode.

Table 5: Searching Behaviors

Behavior	No	Yes	NA
4.1 Already Tried	915	367	153
4.2 Constructs Strategy	107	796	532
4.3 Explain Strategy	162	731	542
4.4 Patron's Time Frame	33	772	630
4.5 Explains use of Source	176	967	292
4.6 Narrow/Broaden	491	372	572
4.7 Ask Additional Need	683	541	211
4.8 Refers when needed	310	877	248
4.9 Offers Search Pointers	306	1,005	124
4.11 Appropriate Technology	715	508	212

As with the listening/inquiring guidelines, it is likely that the poor performance for compliance to the RUSA-recommended searching behaviors is also related to time. It is difficult to refer patrons to other sources, librarians and databases when the patron is only giving the librarian a few minutes to find needed information. Asking what patrons have already done and working with them to narrow and broaden their topics would lengthen the time of the session and upset the patron. In order to meet the primary needs of the user, some searching guidelines may need to be sacrificed.

Follow-up

Follow-up is crucial to ensuring that the patron has satisfied their information need. When the patron is ready to leave the desk, the librarian needs to ask the patron if his question was completely answered (5.1) and encourage him/her to return to the reference desk (5.2) or use other services (chat reference) (5.5) for future information needs. The librarian should never end the reference interview prematurely (5.9). Roving can be an excellent technique for follow-up (5.3).

Texas A&M University chat providers demonstrated more strengths than weaknesses in their follow-up behaviors. Only 6.6% of the sessions appeared to require additional subject expertise, but in every case, subject specialists were consulted (5.4). Of the 254 transactions where the patron needed additional information, all of the patrons were either referred to additional sources (5.7) or the librarian made arrangements to pursue the research question after the user logged out of the service (5.6). Where the user was referred, 100% of the chat librarians facilitated the referral, when warranted (5.8). All of the chat librarians were careful not to end the session prematurely (5.9) and e-mailed patrons, when appropriate, after the session was complete (5.3). However, it is questionable that the roving guideline (5.3) is applicable to the chat reference environment. The concept of roving in librarianship generally means walking around in a physical environment. The chat environment is virtual and therefore difficult to rove in.

In contrast to these strengths, only 31% of the chat librarians asked if the information need had been answered fully (5.1) while only 23% of the chat providers encouraged the patron to return to the service if they had any additional information needs (5.2). Finally, only 12% encouraged the patron to visit the library in person.

Table 5: Follow-up Behaviors

Behavior	No	Yes	NA
5.1 Questions Answered	788	494	153
5.2 Encourages Return	1,014	295	126
5.3 Roving	0	42	1,393
5.4 Consults Others	0	95	1,340
5.5 Other Services	554	750	131
5.6 Research Questions	0	77	1,358
5.7 Refers Patron	0	254	1,181
5.8 Facilitates Referring	0	74	1,361
5.9 Premature Ending	0	52	1,383
5.10 Call/Visit Library	1,161	160	114

Despite the behavioral weaknesses identified in the chat service transactions, 82% of the reference sessions showed evidence of user satisfaction. This evidence was seen in the transcripts when patrons indicated that they either got what they wanted or that their question was answered. Of the remaining 18% the patron either left without indicating their satisfaction, was disappointed that their question could not be answered in their time frame or the software kicked the patron out of the session and they didn't return. Surprisingly, 77% of the patrons indicated they were in a hurry to get the information. In general, these hurried transactions lasted 20 minutes or less.

Conclusion

The results of this study support many of the findings in previously published research. Immediate response, convenience, point-of-need, and personalized service are recurring themes in the chat reference literature.

Comparison of RUSA's behavioral guidelines with the actual behaviors found in chat transcripts reveals that providers do not fully comply with these standard recommendations. For example, this study supports the findings of Ryan, et al (2006). Chat reference providers are generally weak at identifying the user's goals (3.4) and restating the question (3.5). This study also supports findings by Ryan, et al (2006) and Zhou, et al (2006) which identified a weakness in asking open- (3.7) and closed- (3.8) ended questions.

Research shows that many users consider chat to be useful for point of need questions that can be addressed immediately. Many of these questions simply do not require a full reference interview. For example, "How do I access Academic Search Premier?" This type of question does not require open- and closed- ended questions. Even if users need additional help once their initial questions are answered, they do not perceive the next step as being part of the first question. If satisfied with a quick, direct answer, they will return when more information is needed.

Most of the chat sessions in this study lasted 20 minutes or less. This is consistent with the Pomerantz & Luo (2006) study that reported most users perceived their chat service to be fast. Speed, while imperative, is also a limiting factor in the chat environment. As Lee (2004) calculated, a chat version of a conversation takes 600% longer than its spoken counterpart. Obviously, something must be sacrificed to compensate for the time lost in typing. Quite possibly, all absolutely unessential dialogue is abandoned, including many elements of the reference interview.

Given this situation, the authors conclude that RUSA's guidelines are not realistically applicable in the strictly chat environment. The authors recommend that a separate behavioral standard be developed for chat and IM reference interactions. This standard should, ideally, take into account the types of questions for which chat is most suited and the behaviors of its users, specifically the behaviors driven by their immediacy and speed of reply requirements. In the meantime, libraries can focus provider training on the elements of RUSA that are viable in a chat environment (i.e. being cordial, not being judgmental, referring) and on the provision of tips for recognizing when a reference interview is or is not required.

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