Transcript Analysis Assignment: Digital Reference Interview Evaluation

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This paper presents analysis of two synchronous online chat-based reference interviews based on the interview transcripts. The transcript analyses employ the evaluation criteria set forth by the Reference and User Services Association in Guidelines for Behavioral Performance of Reference and Information Service Providers (\textit{RUSA Guidelines}). In addition to general guidelines that can be applied in any type of reference interaction, including both in person and remote transactions, and in-person guidelines that are specific to face-to-face and video-based reference encounters, the RUSA document provides remote guidelines, “specific to reference encounters where traditional visual and non-verbal cues do not exist” (Reference and User Services Association, 2013). The latter include phone, virtual, text-based (e-mail, chat, texting, IM), and internet-based voice-only transactions.

“A major concern in evaluating reference services is deciding which variables should be measured,” note Shachaf and Horowitz. “Studies evaluating traditional reference services focused on the types of questions asked; the accuracy, completeness, and usefulness of information provided by a reference librarian; user satisfaction; and the librarian’s behavior. Evaluations of virtual reference services have used measures similar to those of traditional reference. For example, studies focused attention on the type of questions; accuracy, completeness, and usefulness of the service; and user satisfaction” (2008, p. 124).

While the variables described by Shachaf and Horowitz rather summarize all facets of the reference interview evaluation, the guidelines developed by RUSA allow for more granular and comprehensive analysis. The following RUSA Guidelines’ evaluation criteria are used in this paper, in particular as they apply to general and remote reference transactions:

1. Visibility/Approachability
2. Interest
3. Listening/Inquiring
4. Searching
5. Follow-up

The detailed description of the evaluation criteria used in this paper is available in the Appendix A section.

**Transcript Analysis Interview #1**

The first transcript appears to be that of an online chat-based reference interview at an academic library (Appendix B). The reference question was to find demographic information about a specific city for the library patron’s school assignment.

**Visibility/Approachability**

A successful reference transaction requires a high level of visibility. Beth, the academic reference librarian, established contact with Kimberly, the library user, at the very beginning of the interview. She acknowledged Kimberly by using a friendly greeting to initiate conversation “Hi Kimberly,” and introduced herself by name and the institution she was affiliated with: “This is Beth, a librarian from an academic institution.” Beth was poised and ready to engage with Kimberly by expressing her readiness to help:

[Librarian 12:25:08]: [...] I’ll be happy to help you with your question.

“The patron should not wait any longer than one minute before the chat provider accepts the question,” Schwartz and Trott point out (2014, p. 10). Based on the time stamps provided in the reference interview transcript, Beth provided timely responses to Kimberly’s questions and reactions to Kimberly answers, and used a jargon-free language in her answers. Whereas the time lags between the user’s questions and the librarian’s answers exceeded the one-minute limit,
most of them were, with few exceptions, under 3 minutes. At the point in the interview when it took Beth some time to search for an answer, less than 7 minutes, she did warn Kimberly that the search might take some time:

[Librarian 12:31:53]: It would, but I'm not sure if it will list by city. I'll research a couple sources for you... this might take a little time.
[Librarian 12:38:27]: I'm looking at a source called the County and City Data Book: 2007. It does have population for Thousand Oaks, CA as of 2005, and Hispanic origin.

The author of this analysis feels, however, that at the point when Kimberly asked for the data more recent than 2005, the librarian could have done a better job. It took Beth nearly 17 minutes to get back to Kimberly with the answer, and whereas she did acknowledge that she made Beth wait: “[Librarian 13:00:29]: It took me a while to get there,” she should have warned Kimberly, again, that it might take her some time to come up with it, before diving into the search for State and County QuickFacts:

[Kimberly 12:41:43]: This looks great! Is there anything more recent than 2005 though?
[Librarian 12:58:38]: Ahh, this might be a better place -- State and County QuickFacts: [http://quickfacts.census.gov/qfd/index.html](http://quickfacts.census.gov/qfd/index.html)

**Interest**

The academic librarian providing the online reference service demonstrated a reasonably high degree of objective and nonjudgmental interest in the reference transaction. Beth embraced Kimberly’s informational need, even though she was not affiliated with Kimberly’s institution and was committed to providing the most effective assistance, including helping Kimberly locate the most recent data for her inquiry.

In the effort of maintaining regular online contact with the patron to convey interest, Beth, the academic librarian, regularly provided assurance that the query was still viable and a response was forthcoming:
Effective listening and questioning skills are necessary for a successful reference transaction. The academic librarian was able to effectively identify the patron’s information needs in a manner that put Kimberly at ease. Beth communicated with Kimberly in a receptive and supportive manner. In addition to expressing her readiness to help Beth at the beginning of the transaction: “[Librarian 12:25:08]: […] I’ll be happy to help you with your question. How are you today?” Beth demonstrated good listening skills by using friendly, cordial language, such as “[Librarian 13:00:46]: You're very welcome,” and “[Librarian 13:02:00]: I'm glad I could help. Good luck with your project, and thanks for using this service!”—while concluding the interview.

Before responding to Kimberly’s inquiry, Beth allowed her to fully state her information need in Kimberly’s own words:

**Question:** I need to know where I would find demographic information about a specific city for my school assignment.

[Librarian 12:25:08]: […] What city are you looking for demographic information for? [Kimberly 12:25:47]: […] I actually need information about Thousand Oaks, CA. [Kimberly 12:29:22]: Well, I need to know about the overall population, the Hispanic population, and the overall children in the area. Would the Census have all that?

In lieu of open-ended questions that upon the first glance didn’t seem to be required for this particular information need, as the user was looking for specific data, the librarian was successful in using closed and clarifying questions allowing refining the search query. In addition, to ensure accurate understanding of the question posed by the patron, Beth rephrased Kimberly’s question:
[Librarian 12:25:08]: [...] What city are you looking for demographic information for?
[Librarian 12:27:51]: Ok, and by demographics, are you looking for population—or some specific categories?
[Librarian 12:38:27]: [...] Let me know if you have questions about accessing the County and City Data Book.

Rephrasing the question is of particular notice here, as according to the results of the study of adherence to RUSA Guidelines as reported by Shachaf and Horowitz, only 9.5% respondents used this strategy (2008, p. 132).

On the other hand, had Beth posed any open-ended questions, that might have encouraged Kimberly to expand on her topic of interest, which in turn might have added more value to her original information need (Reference and User Services Association, 2013, 3.1.7).

**Searching**

In the course of the reference transaction, Beth displayed solid knowledge of appropriate reference resources and the online search strategies yielding accurate results. She identified the information resources she was to use during the transaction—the US Census website; the County and City Data Book: 2007; the State and County QuickFacts—and provided the sources’ URLs. Beth also did a thorough job of explaining to Kimberly how to use the sources and access the data in the data tables by clicking the pdf links:

[Librarian 12:38:27]: I'm looking at a source called the County and City Data Book: 2007. It does have population for Thousand Oaks, CA as of 2005, and Hispanic origin. But it doesn't look like it has the number of overall children. The link to this source is: http://www.census.gov/statab/www/ccdb.html. Then click on City and place data tables. Population is in C-1 (click the pdf link); Hispanic origin is in D-2. Look under California, then Thousand Oaks. I'll see what I can find in terms of children. Let me know if you have questions about accessing the County and City Data Book.
[Librarian 12:39:49]: Ahh, D-1 has by age...

When Kimberly expressed that she'd like more recent information, Beth complied and tracked down a different source.
The shortcoming of this part of Beth’s reference strategy was her failure to find out whether Kimberly has already tried searching on her own and encourage the patron to contribute her own ideas (Reference and User Services Association, 2013, 4.1.1). According to Shachaf and Horowitz, this is a common type of mistake: in the study of the extent of adherence to RUSA guidelines only 0.6% of respondents reported that they asked what the user already tried, in a sample of 324 reference transactions from 54 libraries (2008, p. 132).

**Follow-up**

“Supplying information is not the end of the reference transaction. The librarian is responsible for determining if the patron is satisfied with the results of the search, and referring the patron to other sources including those not available through the local library,” RUSA Guidelines maintain (Reference and User Services Association, 2013).

By asking Kimberly if she had any further questions at the end of the interview [13:00:46], Beth was able to successfully conclude the reference transaction. The author of this analysis feels, however, that Beth could have done a better job had she encouraged Kimberly to return if she had further questions by making a statement such as: “If you need additional information, please come back and we’ll be happy to assist you” (Reference and User Services Association, 2013, 5.3.1). This observation is consistent with the results of the study of adherence to RUSA Guidelines as reported by Shachaf and Horowitz: “Lower levels of adherence to RUSA guidelines are observed in […] making follow-up remarks (28%)” (2008, p. 131).
Transcript Analysis Interview #2

Transcript 2 was a poor example of a reference interview. This librarian does an especially poor job of navigating the question, searching, and concluding the transaction.

Visibility/Approachability

The librarian does some things right. A few RUSA guidelines touch on readiness to start and continue a conversation with the patron. One of the guidelines in the Visibility/Approachability category states that the librarian should be “ready to engage patrons” (Reference and User Services Association, 2013, 1.1.2). This is not necessarily clear from a chat transcript, but we can see that the librarian responded to the original query within a minute. This ties into a more specific guideline that a librarian should “respond in a timely fashion to remote queries” (Reference and User Services Association, 2013, 1.3.2), as well as Schwartz’s suggested time limit. This shows that the librarian was paying attention to the chat program as well as whatever else she may have had to deal with at the moment.

Another guideline says that the librarian should begin the patron interaction with a friendly greeting. This librarian, however, jumps straight into answering the query:

19:31 librarian@chat  It is more likely that you would find more (and probably better materials) using a college or university library. However, I can give you suggestions on searching materials on our database.

The patron may not necessarily be expecting an introduction or “how are you?” via the chat client, but it would make the experience easier and less formal for both participants. Relatedly, there is another guideline regarding appropriate tone for “the patron and the nature of the transaction” (Reference and User Services Association, 2013, 3.1.2). She doesn’t make the conversation uncomfortably formal, nor does she insert chat-speak or slang. The librarian does, for the most part, relay information so that it is understandable for a non-librarian. She uses a
few library terms, but most patrons would understand “our catalog”, “the full record”, or “periodicals database.” The librarian is quite objective in the transaction, maybe even too much so. She does not judge the subject nor ask why the information is needed, but she also doesn’t ask any questions at all.

There are some guidelines which are tricky to apply to this case, either because it is from a chat or just because the transcript is limited to the interactions between the beginning and ending of the transaction. RUSA says the reference service should be “found in a highly visible physical or virtual location. Proper signage or notification that indicates the location, hours, and availability of in-person and remote assistance is available” (Reference and User Services Association, 2013, 1.1.1). This would have to be investigated using the institution’s website. In the patron/librarian conversation itself, this could only be analyzed if the patron said something like, “You know, my friend told me about this chat service, and it was tricky for me to find it on the site, but I’m glad I did!”

Interest

Timeliness is also discussed in the Interest section of RUSA’s guidelines. For the most part, the librarian responds to the patron quickly, showing that she is interested in the patron’s question. A Searching guideline stipulates that the librarian “attempt to conduct the search within the patron’s allotted time frame” (Reference and User Services Association, 2013, 4.1.6). In this case, no time limit was specified. The librarian does answer quickly, but as will be detailed later, does not really search. She could possibly have mentally traded time for quality; she gave some information, and provided it quickly, but did not take more time to retrieve perhaps more useful information.
Another of the Interest guidelines say that the librarian should “maintain regular online or voice contact with the patron to convey interest and provide assurance that the query is still viable and a response is forthcoming” (Reference and User Services Association, 2013, 2.3.2). Whether or not this was achieved could depend on the chat client being used. Some programs show an icon, such as a pencil or ellipsis, to indicate that the other user is currently typing. This librarian writes some lengthy messages, and if there’s no indication of typing for the patron, they may be unsure if the librarian is still with them between messages. RUSA (and LIS professional ethics) asks that the librarian “respects patron privacy; maintains confidentiality after the transaction” (Reference and User Services Association, 2013, 3.1.10). Due to the nature of the transcript, we have no idea if the librarian fulfilled this.

RUSA also states that the librarian should be keeping an eye out for waiting patrons. I could see this maybe showing up in a transcript if a librarian says, “Oh, I’ll have to pause with you a minute here. I have a patron at my desk. Hopefully it won’t be more than five minutes.” Given the speed with which this particular librarian replied, I’m guessing there were no other patrons vying for her attention. Similarly, it’s difficult to tell whether a librarian has her full attention on the patron’s question. Even if a patron were at the desk, this isn’t always obvious.

**Listening/Inquiring**

In this interaction, the librarian maintains neutrality. This could actually be improved upon. The Listening/Inquiring section of RUSA guidelines suggests that the librarian “communicate in a receptive, cordial, and supportive manner” (Reference and User Services Association, 2013, 3.1.1). She’s not impolite, certainly. But she seems to come off with more of a no-nonsense attitude than a receptive or supportive one.
Now we get into the three major problems with this reference transaction. The first is that the librarian asked no questions during the entire conversation. Asking questions is imperative to excellent reference service. As many librarians have stated in various articles and essays, patrons often start by asking a question which doesn’t actually get at their information need. It is necessary to ask questions to clarify what sort of materials are required, how narrow or broad of a scope the sources should have, or how much information is needed. One guideline says that the librarian should “allow the patron to fully state his/her information need in his/her own words before responding” (Reference and User Services Association, 2013, 3.1.3). In this interaction, the patron began the conversation by doing this. However, the librarian should have used questioning to allow for a clearer statement. The patron said:

19:30 patron@refchatter.net Hi. I need to do research on laughter's effect on illness. I need both books as well as recent articles. I would appreciate your help.

The librarian could start by asking if the patron has found anything already. She could also ask if the patron could tell her a little more about his question. A guideline suggests the librarian “identifies the goals or objectives of the patron’s research, when appropriate” (Reference and User Services Association, 2013, 3.1.4). The librarian could ask if it’s for an assignment or personal research. Since the patron mentions needing both books and articles, this leads me to believe it’s an assignment. In this case, asking for the guidelines or rubric for the assignment could help guide suggestions. The librarian does not paraphrase her understanding of the user’s information need. Two guidelines state that the librarian should use “open-ended questions” and “closed and/or clarifying questions” (Reference and User Services Association, 2013, 3.1.7. and 3.1.8). This librarian does neither. Without asking questions or at least checking that the patron’s idea of the information need is the same as the librarian’s idea of the information need, the transaction is much less likely to provide the help the patron requires. In
our class lecture, it was stated that the first thing the librarian should do is ask questions, definitely not answer the question as stated. This librarian did the opposite. She assumed that she knew all she needed to know about the information need and started by telling the patron that the library wouldn’t have many useful sources. Without exploring the information need, there is no way she could know whether or not her institution has suitable materials.

**Searching**

“Proper searching behavior during the virtual reference interview is important to the patron’s perception of success in his or her quest to obtain the needed information from the librarian,” Schwartz and Trott point out (2014, p. 10). “Without an effective search strategy, not only is the desired information unlikely to be found, but the patron may become discouraged as well.”

The librarian did not perform a search for the patron. Relevant guidelines for this part of the reference transaction fall under the Searching section of RUSA guidelines. The first instructs the librarian to discover what work the patron has already done. As stated earlier, the librarian asked no questions, and she assumes the patron has not done anything yet. In the transcript we see this transaction between the librarian and patron:

19:33 librarian@chat The best thing to do is to search keywords. Start with combinations of things like "laughter" and "illness". If you get few results or the ones you get don't look relevant, try other keywords. For example, "medicine" might work instead of "illness" (as in, "laughter is the best medicine").

19:35 patron@refchatter.net OK. When I tried with laughter, I did not get many results. I am struggling with the keyword choice.

If the librarian had asked a few questions, such as how exactly she could help or what the patron had tried, she could have saved a fair amount of time. The librarian should make a search plan, including appropriate keywords and likely sources. The librarian mentions trying the
keywords “laughter”, “illness”, and “medicine”, but when the patron states that he’s tried “laughter” and that he’s having trouble with keywords, the librarian replies:

19:35 librarian@chat  Play with the keywords and see what you come up with.

The librarian herself should be doing this! She has a better idea of what keywords are likely to crop up. One change I can think of is to search on “laugh*” instead of laughter. It may be that “laughter” is a subject term, but “laugh*” might bring up titles that would not have been discovered otherwise. The librarian does suggest one book that may help, but doesn’t ask the patron if it sounds relevant. She also suggests searching periodical databases, but she should probably mention particular databases. The library is likely to subscribe to quite a few, and she could at least give the names of medical/scientific databases.

The librarian should “explain the search strategy to the patron” (Reference and User Services Association, 2013, 4.1.3). Since this librarian leaves the actual searching to the patron, she gives a brief explanation of how to search. She suggests using keywords to search the catalog. She also mentions checking the full record for a relevant item:

19:35 ...to see what libraries own copies. If the library isn't close to you, you can place a hold on the title or call the library and have them send it to your closest library. That could take a week or so to get there.

This gives a patron who may be unfamiliar with the library system information on how to actually access physical materials. She tells the patron to search the periodicals databases, but doesn’t mention which ones or any tips for using them, which ties into yet another guideline to “explain how to use sources” (Reference and User Services, 2013, 4.1.7). The librarian could also discuss using subject headings from the catalog. If the patron finds one relevant result, he could look at the subject headings in that item’s full record. He could then continue his search
using those subject headings, which he knows the catalog uses for at least one item relevant to his need.

The librarian is expected not to tell the patron what to do, but to have a discussion with the patron to see if their results were relevant and try different search terms or sources if they weren’t. This librarian only actually suggests one source, and does not ask if it’s relevant. She also tells the patron to revise terms himself. Information that should have been elicited through initial questioning includes how much information is needed. Then while searching, the librarian could talk to the patron about whether the amount of information the search is getting is enough, or if the search needs to be narrowed to eliminate irrelevant results. This librarian didn’t attempt to find out what level of information is necessary, nor did she ask if more or less information was required by the patron. She did not really suggest particular sources in the first place – by just suggesting the patron play with keywords without searching herself, she doesn’t know if the patron will find a keyword that garners some excellent results, but also retrieves many irrelevant results that he won’t know how to weed out. As mentioned above, I’m suspicious that the librarian was more concerned with dispensing some information in a short amount of time than taking a little longer to more fully address the information need.

The librarian states from the start that she doesn’t believe her institution will have helpful information for this patron. After suggesting a few search methods, she says:

19:38 librarian@chat The main problem might be that we just don't have much of a collection of these types of things and you would be better off at a college or, especially a university that has a medical program.

The librarian recognizes that she doesn’t have access to the needed information (or at least believes she doesn’t). She should have first conducted a search to see if this referral was actually necessary. She doesn’t mention any specific institution for the patron to try, leaving the
patron almost as lost as when the conversation began. When asked if she knows of any university libraries that the patron can use, the librarian says:

19:41 librarian@chat No, unfortunately I don't know of any that would let you check out books. But, I think you are welcome to go into most of them and use their facilities and photocopy materials.

19:42 librarian@chat Also, some medical facilities, such as hospitals have libraries that their patients can use. For example, members of Kaiser Permanente are welcome to use their medical libraries.

Our class lecture suggests helping the patron establish a contact when you are referring them to someone or somewhere else. However, this librarian doesn’t even research some possible institutions to suggest to the patron.

**Follow-up**

The manner in which the reference transaction ended is also quite poor. RUSA has several Follow-up guidelines, including ensuring that the question “has been completely answered”, “encouraging the patron to return”, informing the patrons of other ways they can receive reference service, and making sure “not to end the reference interview prematurely” (Reference and User Services Association, 2013, 5.1.1, 5.1.2, and 5.1.7). This librarian doesn’t fulfill any of these guidelines. After she informs the patron that medical facilities sometimes have libraries that patients can use, the patron replies, “OK. I will try to search in OPAC of some universities in LA then.” Two minutes later, the patron says, “Are you still there? Thank you for your help.” The librarian responds, “You’re welcome.” The patron should never be left wondering if there’s anything left for them to say or additional information they’re going to receive. Both patron and librarian should come to a mutual understanding that the interaction is over – the question was understood and the necessary information was found, or if not, information on how to proceed was furnished. Instead, the patron was left hanging, and the librarian did not ask if he needed any more help or offer any additional information. Even if a
search doesn’t end with meeting the information need, librarians should strive to leave the conversation in a friendly manner, rather than leaving the patron wondering.

**Conclusion**

Sometimes it can be easy to tell if a reference interaction went well. An emphatically delighted patron – “That’s perfect! Thank you so much!” – is a good sign. However, it’s not always so simple. Patrons who haven’t received excellent service may not even realize it if they don’t know what to expect. As library students, we can tell just by reading transcripts 1 and 2 that the first interaction went well and the second did not. However, it’s not enough to state that a reference transaction was good or bad. To learn from others’ experiences, we must delve into the analysis.

This is why we need guidelines like RUSA’s Guidelines for Behavioral Performance of Reference and Information Service Providers. They give us a standard to set work against. Instead of saying, “Librarian 1 did an excellent job of serving the patron and finding the necessary information,” we can observe, for example, that she used questions to discover exactly what information was necessary and explained her search path. Guidelines also provide room for improvement. Oftentimes, we look at our work and think, “That’s good, I did well on that” but can’t think of a way to improve it. Guidelines for reference work are akin to rubrics for school assignments – they delineate, point by point, what is needed for superb work. Good work can progress to great through the application of standards and introspection.

User satisfaction is a litmus test for good reference service. As Schwartz and Trott report, user satisfaction regarding chat reference service is “statistically significantly” higher when the RUSA behaviors of using the patron’s name, providing pointers to the user, asking if the question was completely answered, and inviting the patron to come back were applied to the
chat reference interview, according to Matteson, Salamon, and Brewster’s research study (2014, p. 9). Put into reference practice, RUSA’s Guidelines for Behavioral Performance of Reference and Information Service Providers help not only librarians to engage themselves with library patrons and fulfill their information needs, but also users—to appreciate the librarians’ expertise and see the library as a welcoming place of learning in the 21st century.

References

*Guidelines for Behavioral Performance of Reference and Information Service Providers.*

Retrieved from [http://www.ala.org/rusa/resources/guidelines/guidelinesbehavioral](http://www.ala.org/rusa/resources/guidelines/guidelinesbehavioral)


Appendix A

Reference Interview Evaluation Criteria

The following RUSA Guidelines’ evaluation criteria are used in this paper:

1. Visibility/Approachability

The librarian:

1.1 General

1.1.1 Is to be found in a highly visible physical or virtual location (the library, outreach locations, or the library website). Proper signage or notification that indicates the location, hours, and availability of in-person and remote assistance is available.

1.1.2 Is poised and ready to engage patrons. The librarian is aware of the need to stop all other activities when a patron approaches and focus attention on the patron’s needs.

1.1.3 Acknowledges patrons by using a friendly greeting to initiate conversation.

1.1.4 Acknowledges others waiting for service.

1.1.5 Employs a system of question triage to identify questions and service priorities.

1.3. Remote

1.3.1 Provides prominent, jargon-free pointers to all forms of reference services via the library’s web or mobile site.

1.3.2 Responds in a timely fashion to remote queries.

2. Interest

2.1 General

2.1.1 Focuses complete attention on the patron and his/her information need.

2.3 Remote

2.3.1 Acknowledges user questions in a timely manner.

2.3.2 Maintains regular online or voice contact with the patron to convey interest and provide assurance that the query is still viable and a response is forthcoming.

2.3.3 Signals an understanding of the patron’s need.

3. Listening/Inquiring

3.1 General

3.1.1 Communicates in a receptive, cordial, and supportive manner.

3.1.2 Uses a tone of voice and/or written language appropriate to the patron and the nature of the transaction.

3.1.3 Allows the patron to fully state his/her information need in his/her own words before responding.

3.1.4 Identifies the goals or objectives of the patron’s research, when appropriate.

3.1.5 Rephrases the question or request and asks for confirmation to ensure accurate understanding.

3.1.6 Seeks to clarify confusing terminology and avoids jargon.

3.1.7 Uses open-ended questions to encourage the patron to expand on the request or present additional information.

3.1.8 Uses closed and/or clarifying questions to refine the search query.

3.1.9 Maintains objectivity; does not interject value judgments about the subject matter or the nature of the question into the transaction.

3.1.10 Respects patron privacy; maintains confidentiality after the transaction.
3.2 Remote
3.2.1 Uses current technology during the reference interview to gather as much information as needed to serve the patron’s need without compromising patron privacy.

4. Searching
4.1 General
4.1.1 Finds out what the patron has already tried, and encourages the patron to contribute his/her ideas.
4.1.2 Constructs a competent and complete search strategy. The librarian:
   • Selects search terms that are most relevant to the information desired.
   • Verifies spelling and other possible factual errors in the original query.
   • Identifies appropriate sources that are most likely to contain information relevant to the patron's query.
4.1.3 Explains the search strategy to the patron.
4.1.4 Works with the patron to evaluate results, revise search terms, and identify other sources to try if the search is unsuccessful.
4.1.5 Works with the patron to narrow or broaden the topic when too little or too much information is identified.
4.1.6 Attempts to conduct the search within the patron’s allotted time frame.
4.1.7 Explains how to use sources when appropriate.
4.1.8 Offers pointers, detailed search paths, and names of resources used to find the answer, so that patron can learn to answer similar questions on his/her own, when appropriate.
4.1.9 Recognizes when to refer patrons for more help. This might mean a referral to a subject librarian, specialized library, or community resource.
4.1.10 Asks the patrons if additional information is needed after results are found.
4.3 Remote
4.3.1 Uses appropriate technology to help guide the patron through information resources, when possible.

5. Follow-up
5.1 General
5.1.1 Asks the patron if his/her questions have been completely answered.
5.1.2 Encourages the patron to return if he/she has further questions by making a statement such as “If you don’t find what you are looking for, please come back and we’ll try something else.”
5.1.3 Consults with other librarians or experts in the field when additional subject expertise is needed.
5.1.4 Makes the patron aware of other available reference pathways (e-mail, chat, etc.).
5.1.5 Makes arrangements with the patron, when appropriate, to set up an individual research appointment to continue researching the question.
5.1.6 Refers the patron to other sources or institutions if the query has not been answered to the satisfaction of the patron.
5.1.7 Takes care not to end the reference interview prematurely.
5.3 Remote
5.3.1 Encourages the patron to contact the library again if he/she has further questions by making a statement such as “If you need additional information, please contact us again and we’ll try something else.”

Appendix B

Transcript #1

Question: I need to know where I would find demographic information about a specific city for my school assignment.

[Librarian 12:24:24]: Librarian 'Beth, *** State U Library' has joined the session.
[Librarian 12:25:08]: Hi Kimberly, This is Beth, a librarian from an academic institution. I am not affiliated with your institution, but I'll be happy to help you with your question. How are you today? What city are you looking for demographic information for?
[Librarian 12:27:51]: Ok, and by demographics, are you looking for population -- or some specific categories? I'll be checking a US Census website to see if your city is available.
[Kimberly 12:29:22]: Well, I need to know about the overall population, the Hispanic population, and the overall children in the area. Would the Census have all that?
[Librarian 12:31:53]: It would, but I'm not sure if it will list by city. I'll research a couple sources for you... this might take a little time.
[Librarian 12:38:27]: I'm looking at a source called the County and City Data Book: 2007. It does have population for Thousand Oaks, CA as of 2005, and Hispanic origin. But it doesn't look like it has the number of overall children. The link to this source is: http://www.census.gov/statatab/www/ccdb.html Then click on City and place data tables. Population is in C-1 (click the pdf link); Hispanic origin is in D-2. Look under California, then Thousand Oaks. I'll see what I can find in terms of children. Let me know if you have questions about accessing the County and City Data Book.
[Librarian 12:39:49]: Ahh, D-1 has by age...
[Kimberly 12:41:43]: This looks great! Is there anything more recent than 2005 though?
[Librarian 12:58:38]: Ahh, this might be a better place -- State and County QuickFacts: http://quickfacts.census.gov/qfd/index.html
[Librarian 12:59:03]: I get to this table: http://quickfacts.census.gov/qfd/states/06/0678582.html
[Kimberly 12:59:59]: That's perfect! Thank you so much!
[Librarian 13:00:29]: Took me a while to get there, but that has 2010 information for Thousand Oaks.
[Librarian 13:00:46]: You're very welcome. Did you have further questions?
[Kimberly 13:01:26]: No, thank you for all of your help! I never could have found this on my own!
[Librarian 13:02:00]: I'm glad I could help. Good luck with your project, and thanks for using this service!
Transcript #2
19:30 patron@refchatter.net Hi. I need to do research on laughter's effect on illness. I need both books as well as recent articles. I would appreciate your help.
19:31 librarian@chat  It is more likely that you would find more (and probably better materials) using a college or university library. However, I can give you suggestions on searching materials on our database.
19:31 patron@refchatter.net That is great.
19:32 librarian@chat  First, you can start by searching our catalog. This would pull up any books, videos, audiobooks or DVDs that we have on the subject.
19:33 librarian@chat  The best thing to do is to search keywords. Start with combinations of things like "laughter" and "illness". If you get few results or the ones you get don't look relevant, try other keywords. For example, "medicine" might work instead of "illness" (as in, "laughter is the best medicine").
19:35 patron@refchatter.net OK. When I tried with laughter, I did not get many results. I am struggling with the keyword choice.
19:35 librarian@chat  Play with the keywords and see what you come up with. If you find any items that look relevant, check the full record to see what libraries own copies. If the library isn't close to you, you can place a hold on the title or call the library and have them send it to your closest library. That could take a week or so to get there.
19:37 librarian@chat  As keyword choices you could try "humor" or even go farther afield, such as "optimism". You might also look for books by Norman Cousins. I think it was back in the 1970s that he wrote a book about been cured of illness by watching Marx Brothers films. I think the book was called "Anatomy of an Illness"
19:38 librarian@chat  The main problem might be that we just don't have much of a collection of these types of things and you would be better off at a college or, especially a university that has a medical program.
19:39 patron@refchatter.net Oh, I did not know about it (the book).
19:39 librarian@chat  You should also try searching our periodicals databases. Some of them have scholarly articles or more specialized types of publications.
19:39 patron@refchatter.net Do you know by chance any university library which is open to the public?
19:41 librarian@chat  No, unfortunately I don't know of any that would let you check out books. But, I think you are welcome to go into most of them and use their facilities and photocopy materials.
19:42 librarian@chat  Also, some medical facilities, such as hospitals have libraries that their patients can use. For example, members of Kaiser Permanente are welcome to use their medical libraries.
19:43 patron@refchatter.net OK. I will try to search in OPAC of some universities in LA then.
19:45 patron@refchatter.net Are you still there? Thank you for your help.
19:45 librarian@chat  You're welcome.