

# Professional Preparation for “Text a Librarian”

## *What Are the Requisite Competencies?*

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*This study seeks to determine the competencies requisite for successful delivery of text reference service. A Delphi study was conducted to collect input from experienced text reference librarians, and forty-nine competencies were identified and evaluated based on their importance to the practice of text reference service. Results of the study will assist content design for text reference training and education, help enhance service performance, and eventually lead to optimal user experience.*

Going “where users are” is a philosophy many libraries embrace. Responding to the public’s adoption of various communication technologies in their daily lives, libraries have been offering reference services via telephone, email, and online chat to make it as convenient as possible for users to receive assistance at their point of need. Nowadays, texting has become a significant venue for communication and social activities in people’s lives. According to The Pew Research Center’s Internet and American Life Project, 83 percent of American adults own cell phones and three-quarters of them (73 percent) send and receive text messages.<sup>1</sup> Young adults are the most avid texters by a wide margin. Cell owners between the ages of 18 and 24 exchange a daily

average of 109.5 messages. Fully aware of texting’s popularity and continuing the tradition of going where users are, libraries have started adopting it as a reference service venue. Users can text their questions to librarians and receive answers in the form of text messages. Reference service provided via texting is usually termed text reference service.

Like all other reference venues (desk, telephone, email, and online chat), texting is characteristically distinctive. For example, texting-based communications are restricted to 160 characters per message, and the cost of texting depends on an individual’s texting plan. While texting is technically an asynchronous channel, it is often used synchronously, especially among teens, the largest demographic of texters. The different characteristics of service venues makes it necessary to develop venue-specific best practices.<sup>2</sup> Reference librarians need to be aware of each service venue’s impact on their behavioral performance, and be equipped with proper skills and knowledge in response to it. Thus, to help them most efficiently and effectively conduct reference service, it is important to determine not only competencies essential across all reference venues, but also competencies vital for a particular type of service, such as text reference service.

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In hope of enhancing professional development of reference librarians and better preparing them for text reference service, this article presents a study that seeks to identify competencies requisite for successful delivery of reference service via texting. Competencies, defined by Griffiths and King as a combination of knowledge, skill, and attitude, are an indispensable component in the advancement of librarianship.<sup>3</sup> The ultimate goal of competency development is to facilitate training and education. Being the first effort in text reference competency research, this study seeks to produce a prioritized list of competencies that will assist content design for text reference training and education, help enhance service performance, and eventually lead to optimal user experience.

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## LITERATURE REVIEW

Literature on library reference service abounds with competency identification studies. Reference is a continually evolving field in response to the constant advancement of technologies and the subsequent social and economical transformation. Incessant changes in the way people seek and access information demand frequent updates in reference librarians' skill sets so that they can better help library users fulfill their information needs. Luo conducted a comprehensive review of reference competency studies that ranged from the times when reference services were still print resource oriented and limited to a certain physical space, to the times when references evolved into a diversified portfolio that could reach more people with more resources and less restriction of time and space.<sup>4</sup> A summary of competencies identified from these studies was provided:<sup>5</sup>

- Ability to conduct an effective reference interview;<sup>6</sup>
- Knowledge of referral methods and techniques;<sup>7</sup>
- Knowledge of standard print and electronic sources and the primary subject field of users served;<sup>8</sup>
- Communication and interpersonal skills;<sup>9</sup>
- Technological skills;<sup>10</sup>
- Instructional skills;<sup>11</sup>
- Ability to apply library policies and procedures;<sup>12</sup>
- Personal traits or attributes;<sup>13</sup>
- Analytic and critical thinking skills;<sup>14</sup>
- Management and supervisory skills;<sup>15</sup> and
- Commitment to user services.<sup>16</sup>

This literature review served as a foundation for Luo's own study of chat reference competencies.<sup>17</sup> A survey was conducted among chat reference practitioners to evaluate the importance of a list of competencies to the practice of chat reference. Each competency was rated on a seven point Likert scale with one being not important at all, and seven being most important. A total of twenty-one competencies received ratings higher than 5.5 (out of 7) and were defined as essential for chat reference, among which the top five competencies were: referring users to appropriate resources/

services when necessary, skills in selecting and searching databases and internet resources, familiarity with subscribed library databases, ability to think quickly and deal flexibly with unexpected situations in chat reference sessions, and using open probes to clarify questions. In addition, the relationships between competencies and contextual variables (length of chat reference experience, level of comfort, service software, work setting, degree status, and service mode) were examined. Findings suggested that librarians working in a collaborative service mode found technical competencies, familiarity with electronic resources, understanding of online culture and chat etiquette, and ability to work under pressure to be significantly more important than those working in a stand-alone service mode did; and librarians working with commercial chat software attached more importance to technical competencies, knowledge of Internet resources and resource evaluation skills, and the ability to work under pressure than those working with instant messengers did.

Luo's study was the most recent effort in reference competency research.<sup>18</sup> In the past four years since its publication, the reference arena has been once again reshaped by technological progress—texting has emerged as an increasingly popular venue for reference service. It is imperative for reference professionals to develop a solid understanding of this new service venue and update their knowledge and skills to ensure successful service delivery. However, the current text reference literature consists primarily of reports of implementing and managing text reference services. While much has been discussed about staffing, service software, marketing, and usage statistics, there is no coverage on professional preparation of text reference librarians.<sup>19</sup> To fill the void in the literature, this study seeks to identify the competencies requisite for providing text reference service and lay the ground for effective training and education.

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## METHOD

A Delphi study was conducted to achieve the research objective. Delphi study is a frequently used methodology in competency identification studies. It is a technique of gleaning and refining the subjective input from a group of people, usually experts, in an attempt to achieve consensus about some aspect of the present or the future.<sup>20</sup> The opinions of participants are collected through questionnaires where anonymity is ensured. Usually, a Delphi study is an iterative process and has to go through three or four rounds since the goal is to obtain consensus from the group. Researchers summarize the results from each round by means of statistical analysis, such as frequency distribution, range, mean, and standard deviation, and return the summary of the group responses to each individual participant. Through the controlled feedback, participants have access to the overall picture of the group input and the distribution of different kinds of responses. In this way, individual participant can compare his/her own opinions with those of the rest of the group and then decide

whether to change it or not. Dalkey and Helmer discovered that opinions tend to have a large range at the beginning but in the following rounds the range is significantly narrowed and consensus starts forming.<sup>21</sup> In a Delphi study, participants are asked to provide justification or explanation when their opinions fall out of the range of group consensus. Researchers can have a better understanding and analysis of the results by having participants state their underlying reasons to insist on their own opinions and remain outside the consensus range.

Whether or not the Delphi method is appropriate for a study depends on the nature of the research. Generally, if the problem “does not lend itself to precise analytical techniques but can benefit from subjective judgments on a collective basis,” the Delphi method can be considered as a feasible approach to tackle the problem.<sup>22</sup> As for decisions about the length and scale of the study, such as how many rounds need to be conducted and how many participants need to be recruited, researchers should take into consideration the specific requirement of the research design. Since the goal of this study is to identify competencies requisite for text reference service, it is necessary to invite input from experienced librarians. The Delphi study offers a consensus-building capacity in gathering professional opinions, and thus was selected as the research design to yield an agreed-upon list of competencies based on the collective experience and perception of veteran text reference librarians.

A three-round Delphi study was conducted. Librarians with sufficient text reference expertise were selected as the study subjects. Sufficient text reference expertise was defined as having worked with text reference for at least two years or having published about text reference based on empirical experience. For subject recruitment, a call for participation was emailed to members of My Info Quest (MIQ), a self-organized and self-managed nationwide collaborative text reference service. MIQ participants include twenty-five multi-type libraries and five independent volunteer librarians. It was launched in July 2009 and had been in operation for twenty-seven months by the time of the study. Another email invitation was sent to authors of eleven articles about text reference service published in *Reference Services Review* and *The Reference Librarian* in the past four years. Thirty-eight librarians from the expert pool responded and expressed willingness to participate in the study.

In the first round, participants were asked to list competencies they think are essential for providing text reference service. A definition of competency was provided: a generic knowledge, skill, or attitude of a person that is causally related to effective behavior as demonstrated through external performance criteria.<sup>23</sup> No other literature was provided and participants were asked to rely solely on their experience to propose competencies they consider essential in text reference practice. A total of forty-nine competencies were parsed from participants' responses and rank ordered by frequency of occurrence.

In the second round, the rank ordered list of competencies were sent to participants, and they were asked to evaluate

each competency's importance to text reference practice on a five-point Likert scale, with one being not important at all, five being most important. Twenty responses were collected from this round; the mean value and standard deviation of each competency's ratings was analyzed. The second round witnessed a 47 percent participant attrition rate.

In the third round, a final list of competencies rank ordered by the mean value of the importance rating was sent to participants. They were asked to decide whether or not they agreed with the aggregated group input and no disagreement was reported. The participant attrition rate in the final round was 20 percent.

Sixteen participants completed all three rounds of the study. Although the attrition rate seems relatively high, it is expected. Attrition is common in any type of research and especially so in Delphi studies. As several rounds are involved, it is more likely for participants to withdraw due to fatigue, distractions between rounds, or disillusionment with the process.<sup>24</sup> In the meantime, attrition rate is often found higher in larger panels where there are more than thirty participants.<sup>25</sup>

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## RESULTS

The results of the Delphi study are presented in table 1. In the first column, all forty-nine competencies identified from responses gathered in the first round are listed. They are rank ordered by frequency of occurrence. In the second column, R1 indicates Round 1, and Freq. is short for Frequency, representing the number of times each competency appeared in participants' responses. The next two columns contain results from the second round, indicated by R2. “Mean” refers to the mean value of each competency's importance rating, and “Stdev.” refers to the standard deviation of each competency's importance rating. The ten most important competencies, that is, the ones that received the ten highest importance ratings, are indicated with an asterisk. The frequency of their occurrence in round 1 ( $r = 0.905$ ) is positively related to the mean value of their importance ratings, and negatively related to the standard deviation ( $r = -0.928$ ), suggesting that competencies identified by more participants were considered more important to text reference practice with less divergence of opinions.

“Ability to compose answers to patrons' questions concisely, quickly and accurately” is the most important competency of all. Texting only allows 160 characters per message and incurs monetary cost if one does not have a texting plan, thus making it a critical skill for librarians to convey information pithily and succinctly via this venue. In the meantime, although technically texting is an asynchronous communication channel similar to email, where information transmission is based on store-and-forward, behaviorally most texting-based communications are synchronous.<sup>26</sup> The expectation of an immediate response appears to be an inherent attribute of texting culture, and this expectation has been transferred to text reference service. In their study among teen library

Table 1. Text reference competencies identified from the Delphi study (An \* denotes the ten highest-rated competencies)

Competencies	R1	R2	
	Freq.	Mean	Stdev.
*Ability to compose answers to patrons' questions concisely, quickly, and accurately	18	4.80	0.41
*Ability to construct effective search strategies and skillfully search online information sources	13	4.25	0.85
Knowledge of reference interview skills	10	3.45	1.23
*Ability to quickly evaluate information and determine the validity, credibility, and authoritativeness of sources	9	4.05	0.83
*Knowledge of information resources, especially online information resources	9	4.05	0.83
*Familiarity with the software/platform used to provide text reference service	8	3.85	0.93
*Good communication skills, such as maintaining a friendly, respectful, helpful, and pleasant tone.	6	3.90	1.07
*Customer service skills	6	3.74	0.93
Familiarity with texting culture and texting lingo	5	3.20	1.20
*Ability to interpret patrons' information needs with limited context in text messages	4	4.05	1.15
*Understanding of text reference service policies	4	3.79	0.98
Ability to multi-task	4	3.50	1.20
Ability to conduct a quick and efficient reference interview	4	3.42	1.07
Knowledge of common reference questions, and therefore ability to anticipate the next step in a patron's request for information	4	3.25	1.12
Basic understanding of how texting technology works	4	3.20	1.15
Ability to type rapidly and accurately	4	2.95	1.03
Ability to grasp technology quickly.	4	2.90	1.07
*Ability to answer questions politely, intelligently, and professionally, even questions that might be judged inappropriate due to language or content	3	3.74	1.15
Timeliness when covering one's shifts	3	3.59	1.42
Willingness to conduct a reference interview	3	3.42	1.12
Ability to provide instructions in text reference	3	3.42	1.30
Ability to use tools like TinyURLs to assist the composition of responses to patrons' questions	3	3.30	0.92
Knowledge of participating libraries in a collaborative text reference service	3	3.20	1.20
Awareness of the limitations of texting as a communication venue, such as character limit per message and possible cost	2	3.60	0.88
Willingness to make referrals when one cannot find a sufficient answer	2	3.58	1.07
Attention to detail	2	3.44	1.20
Understanding of performance guidelines and standards, and how to apply them in text reference	2	3.21	1.13
Ability to use multiple tabs or multiple browsers	2	3.13	1.15
Organizational skills	2	3.13	1.20
Desire and capability to work with people	2	3.11	1.18
Patience	2	2.89	1.37
Ability to truly enjoy helping patrons via texting	2	2.83	1.20
Composure	2	2.83	1.42
Experience with Web 2.0 or Library 2.0 technologies	2	2.71	1.21
Ability to work in a group	2	2.47	1.28
Knowledge of mobile devices	2	2.41	1.06
Ability to recognize questions that are not appropriate for text reference and respond accordingly	1	3.65	1.14
Professional integrity	1	3.50	1.37
Awareness of texters' lack of access to a computer at their point of need	1	3.42	1.30
Deductive reasoning skills	1	3.37	1.21
Empathy with people using mobile devices	1	3.19	1.28
Ability to optimize one's browser in order to access familiar resources quickly	1	3.00	1.37
Ability to seek help from other people	1	3.00	1.20
Sense of openness	1	2.87	1.36
Ability to exhaust all information sources before making a referral	1	2.84	1.38
Readers' advisory skills	1	2.76	1.30
Ability to use print reference sources effectively	1	2.26	0.99
Knowledge of pop culture references	1	2.22	1.00
Desire to learn a new language—texting	1	2.00	1.24

users, Luo and Weak found that some teens' willingness to use text reference service was contingent upon the responsiveness of the service, and they would only consider using it if the service promises a speedy response.<sup>27</sup> Despite being quick and concise, maintaining the accuracy of answers is equally important. Wrong information is a common pitfall in reference transactions due to the overwhelming pressure to "just answer" when an immediate response is anticipated.<sup>28</sup>

The ability and confidence to provide a quick, concise, and accurate answer derives from a solid mastery of information sources and search skills, as demonstrated in the second, third, and fourth most important competencies: "Ability to construct effective search strategies and skillfully search online information sources," "Ability to quickly evaluate information and determine the validity, credibility, and authoritativeness of sources," and "Knowledge of information resources, especially online information resources." Being able to identify, search for, and evaluate information sources is an essential competency across all reference venues. Luo, in her literature review of reference competency research, discovered that knowledge of standard print and electronic sources and the primary subject field of users served was a frequently declared competency in many studies.<sup>29</sup> In the meantime, the evolving reference venues in the digital arena demand an increasingly emphatic grasp on electronic information resources. In her study of chat reference competencies, Luo found that skills in selecting and searching databases and Internet resources as well as familiarity with subscribed library databases were among the top five competencies essential for chat reference practitioners.<sup>30</sup> In this study, the word "online" was also highlighted in the aforementioned competencies related to information resources.

The fifth most important competency was "Ability to interpret patrons' information needs with limited context in text messages." Because of the character limit of each text message, communications via texting tend to be terse. Thus, librarians have to be perceptive in uncovering users' real information needs in such a compacted communication format. Generally, the reference interview is the key to determining what users are truly looking for in the transaction. However, texting does not lend itself to comprehensive back-and-forth question negotiation. In table 1, the three reference interview related competencies, "Knowledge of reference interview skills," "Ability to conduct a quick and efficient reference interview," and "Willingness to conduct a reference interview" only ranked in the 17th, 19th, and 20th place respectively with regards to their importance to text reference practice. On the other hand, questions submitted to text reference service are typically ready reference questions that are usually simple and straightforward, and can be answered with a definitive piece of information.<sup>31</sup> This type of question mostly does not involve a reference interview.

The next four items on the list of the ten most important competencies are variations of some of the requisite general reference competencies reported in the literature. Table 2 presents a comparative view of these four competencies and

similar ones found in the literature. Although slightly different, both sets of competencies cover knowledge and skills in four pivotal areas: communication, technology, service policies and procedures, and customer service.

The tenth most important competency, "Ability to answer questions politely, intelligently and professionally, even questions that might be judged inappropriate due to language or content," suggests that librarians need to calmly and wisely handle a common problem in digital reference venues: pranks or other types of service abuse caused by the remote and anonymous nature of online communications. It is important to overcome one's own discomfort and maintain professionalism when encountering inappropriate behavior in reference transactions.

Among the total of forty-nine competencies identified and evaluated in the study, the top ten represent the most essential knowledge and skills that librarians need to master in order to provide text reference service successfully. The implications for training and best practices are discussed in the next section.

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## DISCUSSION

As a practical profession where behavioral objectives are important, librarianship enhances itself by achieving a variety of competencies in the increasingly diverse working environment. This study continues the competency determination efforts in the reference literature by generating a prioritized list of essential competencies for the most recent reference progression: text reference service. As indicated by Griffiths and King's model competency achievement process in figure 1, once the competency needs and requirements are determined, corresponding training and education follow in order to accomplish the identified competencies.<sup>32</sup>

Competency-based education/training (CBE/T) can be employed to enable the achievement of the important text reference competencies determined from this study. This approach is defined by precise outcomes resulting in claimed practical applications of knowledge that are relevant and measurable.<sup>33</sup> Using CBE/T, curricula are developed from an analysis of roles to be filled on completion of the educational or training program, where an agreed-upon level of competency is communicated through the use of specific, behavioral objectives for which criterion levels of performance are established to measure learning outcomes.<sup>34</sup>

The ten competencies with the highest importance ratings identified by this study should be the focus of any CBE/T design. As a result of the consensus building effort, they exhibit a substantial degree of agreement among participants of the Delphi study; each competency's mean importance rating is positively linked to its frequency of occurrence, and negatively related to the standard deviation. Representing the convergence of the study participants' opinions, these ten competencies should be carefully converted into learning objectives for education and training programs. If resources

allow, attention may also be given to the rest of the competencies identified in the study that received a rating higher than three. These competencies spread across the higher half of the importance spectrum and could also be a valuable component of text reference librarians’ repertoire of knowledge and skills. However, most libraries are facing steep budget cuts in the current economic climate and can only afford limited investment in professional preparation for librarians. Thus, given such constraints, the allocation of training/education resources should be prioritized and the focus of coverage should be the ten most important competencies.

A closer look at the top ten text reference competencies reveals that they are inextricably connected to all the reference competencies identified in previous studies. Seven out of ten share similarities with previously identified competencies and are not specific to the text reference venue:

- Ability to construct effective search strategies and skillfully search online information sources
- Ability to quickly evaluate information and determine the validity, credibility, and authoritativeness of sources
- Knowledge of information resources, especially online information resources

- Good communication skills, such as maintaining a friendly, respectful, helpful, and pleasant tone
- Familiarity with the software/platform used to provide text reference service
- Understanding of text reference service policies
- Customer service skills

These seven competencies encompass areas where solid knowledge and exceptional skills are needed regardless of the service venue: online information resources, communication, service technology, policies and procedures, and customer service. Therefore, when developing text reference training/education materials, much can be repurposed from training/education for other reference service venues. Strategies that have been proven successful in preparing chat reference librarians can be adopted and tailored to the need of text reference librarians. Luo identified effective techniques in different areas of chat reference training.<sup>35</sup> “Trainees pair up as patron and librarian to gain hands-on experiences on using the software” was the most useful in familiarizing librarians with the chat application to be used in providing the service. As for chat reference transaction training that aims to deliver competencies regarding reference interviews, knowledge of

Table 2. Comparative View of Competencies

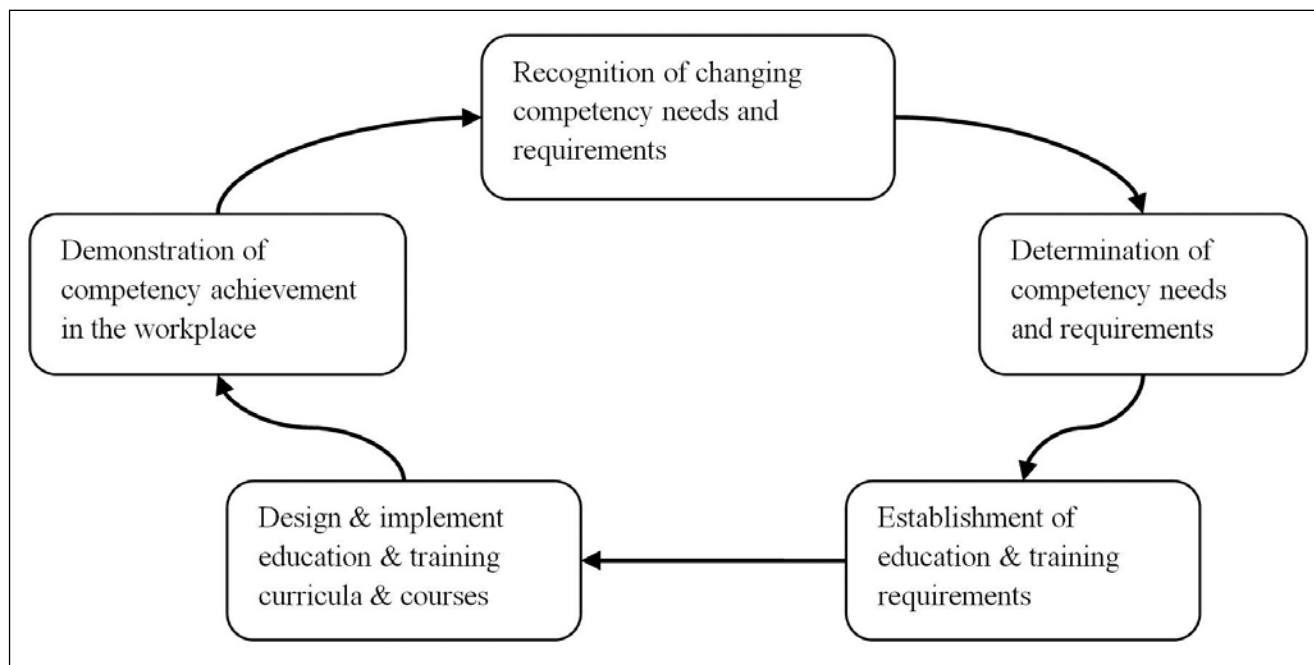
Competency Area	Competency identified in this study	Competency reported in the literature
Communication	Good communication skills, such as maintaining a friendly, respectful, helpful and pleasant tone	Communication and interpersonal skills*
Technology	Familiarity with the software/platform used to provide text reference service	Technological skills†
Service Policies and Procedures	Understanding of text reference service policies	Ability to apply library policies and procedures‡
Customer Service	Customer service skills	Commitment to user services§

\* Ruth E. Bauner. “Reference Ready Beyond the M.L.S.” *Reference Librarian* 13, no. 30 (October 8, 1990): 45–58; Lois Buttlar and Rosemary Ruhig Du Mont. “Assessing Library Science Competencies: Soliciting Practitioner Input for Curriculum Design.” *Journal of Education for Library & Information Science Education* 30, no. 1 (Summer 1989): 3–18; Donna C. Chan and Ethel Auster. “Factors Contributing to the Professional Development of Reference Librarians.” *Library & Information Science Research* 25, no. 3 (2003): 265–286; José-Marie Griffiths and Donald Ward King. *New Directions in Library and Information Science Education*. (White Plains, NY: Knowledge Industry Publications, 1986); Leslie M. Kong. “Academic Reference Librarians: Under the Microscope.” *Reference Librarian* 25, no. 54 (July 25, 1996): 21–27; Nathan M. Smith, Maurice P. Marchant, and Laura F. Nielson. “Education for Public and Academic Librarians: A View from the Top.” *Journal of Education for Librarianship* 24, no. 4 (Spring 1984): 233–245; Danuta Nitecki. “Competencies Required of Public Services Librarians to Use New Technologies.” (Paper presented at the Clinic on Library Applications of Data Processing. In *Professional Competencies—Technology and the Librarian*, 20:43–57. University of Illinois at Urbana-Champaign, 1983); Mary M. Nofsinger. “Training and Retraining Reference Professionals.” *Reference Librarian* 30, no. 64 (May 21, 1999): 9–19; Reference and User Services Association. “Professional Competencies for Reference and User Services Librarians: RUSA Task Force on Professional Competencies.” *Reference & User Services Quarterly* 42, no. 4 (2003): 290–295; Johannah Sherrer. “Thriving in Changing Times: Competence for Today’s Reference Librarians.” *Reference Librarian* 25, no. 54 (July 25, 1996): 11–20; Cecilia D. Stafford and William M. Serban. “Core Competencies: Recruiting, Training, and Evaluating in the Automated Reference Environment.” *Journal of Library Administration* 13, no. 1–2 (November 7, 1990): 81–97.

† Bauner, “Reference Ready”; Chan and Auster, “Factors Contributing”; Kong, “Academic Reference Librarians”; Virginia Massey-Burzio. “Education and Experience, or, The MLS Is Not Enough.” *Reference Services Review* 19, no. 1 (1991): 72–74; Nofsinger, “Training and Retraining”; Reference and User Services Association, “Professional Competencies”; Stafford and Serban, “Core Competencies.”

‡ Bauner, “Reference Ready”; Chan and Auster, “Factors Contributing”; Reference and User Services Association, “Professional Competencies”; R. J. Walters and S. J. Barnes. “Goals, Objectives, and Competencies for Reference Service: a Training Program at the UCLA Biomedical Library.” *Bulletin of the Medical Library Association* 73, no. 2 (1985): 160.

§ Griffiths and King, *New Directions*; Nofsinger, “Training and Retraining”; Reference and User Services Association, “Professional Competencies”; Sherrer, “Thriving in Changing Times.”



**Figure 1.** Griffiths and King's Competency Achievement Model

resources, and online communications, the two most effective techniques in this dimension were “Trainees review selected chat transcripts to learn more about the transaction” and “Trainees ask questions to real chat reference services as users and evaluate their experiences—the secret shopper approach.” Supporting materials play an important facilitating role in chat reference training programs. The most helpful supporting material recognized by librarians was a “Cheat sheet containing vital information librarians might need to access quickly and often while covering the service.” All of these approaches can be applied in text reference training, however, with an altered focus on resources, service policies, and communication skills relevant to text reference. For instance, Luo and Weak found that close to 79 percent of text reference questions were ready reference questions; thus, online information resources that are often used to answer this type should be an emphasis of content coverage.<sup>36</sup> In addition, since texting is different than other communication venues, how to communicate effectively and professionally via texting should be the core of training/education on communication skills.

The three other competencies on the top ten list, “Ability to compose answers to patrons’ questions concisely, quickly and accurately,” “Ability to interpret patrons’ information needs with limited context in text messages,” and “Ability to answer questions politely, intelligently and professionally, even questions that might be judged inappropriate due to language or content” are specific to text reference service because of the unique characteristics of texting as a communication channel, such as the 160-character limit per message and messaging cost. It is not practical to engage in

in-depth reference transactions via the exchange of text messages, hence librarians need to be perceptive and efficient in determining what users are looking for, and be clear and succinct in providing the information. This can be challenging as reference librarians are usually expected to be thorough and detail-oriented when assisting library users.<sup>37</sup> Therefore, in text reference training, it is as important to help librarians understand the shift in expectation and make the proper mindset adjustment, as it is to equip them with requisite knowledge and skills. Topics such as how to use a character counter and URL shortener as well as how to write concisely without appearing brusque and impatient are helpful to include in the training program. It is also necessary to examine transcripts from existing text reference services, and analyze how users frame their questions in text messages. Common messaging patterns will help librarians better understand users’ texting behavior from the communication perspective, and thus interpret their information needs more effectively and precisely.

Due to the anonymity of texting-based communications, there is occasional inappropriate use of text reference service, which usually makes librarians uncomfortable. However, some authentic questions representing genuine information needs can appear improper when the topic of interest is relationships or sex. Particularly, teens are likely to use anonymous library reference services as a safe harbor to inquire about such sensitive topics.<sup>38</sup> In order not to dismiss these questions alongside real pranks, librarians need to treat all seemingly inappropriate questions with professionalism and politeness. In text reference training, it is important to communicate this point to librarians and help them learn to

professionally and calmly handle questions containing uncomfortable language or content.

## CONCLUSION

Library reference is a continually evolving field, which has undergone a series of changes brought about by the advent of technologies, such as the dramatic increase of the availability and accessibility of electronic resources, and the unprecedented expansion of the media through which reference services are provided. These changes undoubtedly respond well to the needs of user communities. They also pose new challenges to the work environment and require reference librarians to have corresponding knowledge and skills to stay current as information professionals. Thus, the need for librarians to acquire new competencies inevitably arises every time the reference field is reshaped by technological progress. As texting emerges as the most recent reference service venue, it is imperative to investigate how to best prepare librarians for effective and efficient provision of text reference service.

The essential text reference competencies determined in this Delphi study depict the professional preparation requirements for text reference librarians and lay the foundation for the development of training/education programs. The top ten text reference competencies consist of both venue-independent knowledge/skills that are essential in all types of reference service and texting-specific knowledge/skills that are particularly pivotal in the success of text reference transactions. They can be incorporated with previously identified reference competencies to create a thorough repository of competencies for the reference field as a whole. Future research is needed to explore converting text reference competencies into learning outcomes and devise instructional strategies to deliver them. Well-prepared librarians are the key to the success of text reference transactions and will ultimately lead to satisfactory user experiences and widespread use of the service.

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